United States Nuclear Regulatory Commission
PLANT ISSUE MATRIX

By Primary Functional Area

Region III

BYRON

Date	Source	Functional Area	ID	Type	Template Codes	Item Title / Item Description
01/18/2000	1999020	**Pri:** OPS **Sec:**	NRC	MISC	**Pri:** 1C **Sec:** 1A **Ter:**	**REVIEW OF BYRON STATION'S WORKFORCE CONTINGENCY MANNING PLAN.** The inspectors concluded that implementation of the Byron Station Workforce Contingency Manning Plan would not adversely impact the safe operation of the facility.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
01/18/2000	1999020	**Pri:** OPS **Sec:**	NRC	POS	**Pri:** 1A **Sec:** **Ter:**	**CONDUCT OF OPERATIONS - GENERAL OBSERVATIONS** Operations of the facility were conducted in a safe and controlled manner. Operators closely monitored plant parameters, followed procedures while conducting plant operations, and generally communicated effectively.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
01/18/2000	1999020	**Pri:** OPS **Sec:**	NRC	POS	**Pri:** 1A **Sec:** **Ter:**	**BYRON STATIONS READINESS FOR THE YEAR 2000 (Y2K) ROLLOVER.** Byron Station's preparations for the Year 2000 (Y2K) rollover were effective. Consequently, Byron Station did not experience any equipment problems due to the Y2K rollover.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
01/18/2000	1999020	**Pri:** OPS **Sec:**	NRC	POS	**Pri:** 1A **Sec:** 3A **Ter:** 3B	**UNIT 2 STARTUP FOLLOWING FORCED OUTAGE B2F20** The Unit 2 reactor startup from forced outage B2F20 was conducted in a safe and controlled manner. Specifically, operators followed plant startup procedures, generally responded to main control room annunciators appropriately, and usually used proper three-way communications. In addition, the senior reactor operators demonstrated effective command and control and reactivity management during the startup.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
01/18/2000	1999020	**Pri:** OPS **Sec:**	Self	POS	**Pri:** 1B **Sec:** **Ter:**	**OPERATOR RESOPNSE TO UNIT 2 REACTOR TRIP** Unit 2 experienced an automatic reactor trip from full power due to a fault on offsite line 0622 and a failure of an auxiliary relay contact associated with air circuit breaker 10-11. Following the reactor trip, all of the safety related systems operated as designed; however, various nonsafety-related equipment failures occurred, including the recurring failure of numerous feedwater heater relief valves. While the nonsafety-related equipment problems were a distraction for the plant operators, the operators effectively controlled and stabilized plant parameters following the reactor trip.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
01/18/2000	1999020	**Pri:** OPS **Sec:** MAINT	Licensee	MV	**Pri:** 1A **Sec:** 3A **Ter:**	**INADVERTENT MIS-POSITIONING OFA FUEL ASSEMBLY INTHE SPENT FUEL POOL (SFP).** Three fuel handlers incorrectly identified/verified the position of the spent fuel pool (SFP) bridge crane over a designated fuel assembly storage location, which resulted in the mis-positioning of a fuel assembly within the SFP during fuel movement.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						

United States Nuclear Regulatory Commission
PLANT ISSUE MATRIX

By Primary Functional Area

Region III

BYRON

Date	Source	Functional Area	ID	Type	Template Codes	Item Title / Item Description
12/06/1999	1999019	**Pri:** OPS **Sec:**	NRC	NEG	**Pri:** 1A **Sec:** **Ter:**	**Inadvertent Reduction in the Spent Fuel Pool (SFP) Level During Local Leak Rate Testing (LLRT)** The spent fuel pool level was inadvertently lowered during the performance of local leak rate testing on a Unit 2 fuel pool cooling system containment building penetration due to the failure of an operator to fully close one of the test boundary valves. The inspectors concurred with the licensee's conclusion that the valve's orientation and design contributed to the event. In addition, the inspectors concluded that the error was attributable to insufficient operator knowledge on the operation of rising stem diaphragm valves. No violation of regulatory requirements was identified.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
12/06/1999	1999019	**Pri:** OPS **Sec:**	NRC	POS	**Pri:** 1A **Sec:** **Ter:**	**Unit 2 Startup Following Refueling Outage B2R08** The Unit 2 reactor startup following refueling outage B2R08 was conducted in a safe and controlled manner. Specifically, the heightened level of awareness briefing and "just-in-time" simulator training effectively prepared the operating crew for the infrequently performed evolution. Also, startup and physics testing procedures were followed; proper three-way communication techniques were generally used; peer and self-checks were performed; and reactivity manipulations were precisely controlled. The inspectors also concluded that senior reactor operators demonstrated effective command and control, directly supervised reactivity manipulations, and provided effective oversight of the startup activities.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
12/06/1999	1999019	**Pri:** OPS **Sec:**	NRC	POS	**Pri:** 1A **Sec:** **Ter:**	**Refueling Outage B2R08 Shutdown Risk** The licensee appropriately managed shutdown risk during refueling outage B2R08. Specifically, appropriate contingency plans were developed and implemented for significant high risk activities; operators were knowledgeable of the shutdown risk status of the unit, the contingency plans in effect, and the status of protected equipment. There were no unplanned entries into a shutdown risk condition where a single failure or error would potentially lead to a loss of mitigation capability in a key safety function.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
12/06/1999	1999019	**Pri:** OPS **Sec:**	NRC	POS	**Pri:** 1A **Sec:** **Ter:**	**Unit 2 Refueling Activities During B2R08** Fuel handling activities during B2R08 were properly supervised by a senior reactor operator licensed for fuel handling and were conducted in accordance with the requirements of the Technical Specifications and station fuel handling procedures. Core alterations were strictly controlled and appropriate accountability measures were followed.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
12/06/1999	1999019	**Pri:** OPS **Sec:**	NRC	POS	**Pri:** 1A **Sec:** **Ter:**	**Third Quarter 1999 Byron Station Self-Assessment** The inspectors concluded that the licensee's Third Quarter 1999 Byron Station Self-Assessment was a thorough, self-critical assessment of Byron Station's performance.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
12/06/1999	1999019	**Pri:** OPS **Sec:**	NRC	POS	**Pri:** 1A **Sec:** 2A **Ter:**	**Cold Weather Preparations** The inspectors noted a significant improvement in the licensee's cold weather preparations during this inspection period in that the licensee addressed cold weather preparations earlier in the fall and more aggressively tracked resolution of known deficiencies to completion. Although the inspectors noted two potential vulnerabilities with the licensee's cold weather preparations, the licensee's preparations appeared to be adequate to preclude any significant problems due to cold weather.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						

United States Nuclear Regulatory Commission
PLANT ISSUE MATRIX

By Primary Functional Area

Region III

BYRON

Date	Source	Functional Area	ID	Type	Template Codes	Item Title / Item Description
12/06/1999	1999019-01	**Pri:** OPS **Sec:** MAINT	NRC	NCV	**Pri:** 1A **Sec:** 2B **Ter:**	**(A) Failure to correctly align the Unit 1 boric acid transfer pump in recirculation mode. (B) Unit 2 surveillance** (A) The licensee failed to control the configuration of the Unit 1 boric acid transfer pump's recirculation isolation valve (1AB8459), which resulted in the operation of the pump at shutoff head for several hours and the subsequent failure of the safety related pump. One example of a Non-Cited Violation was issued. (B) The inspectors concluded that the emergency core cooling system full flow surveillance tests were performed well with one notable exception. Specifically, the inspectors identified that operators were performing a surveillance test with a superceded procedure. The licensee subsequently identified two additional examples where surveillance tests had been performed in accordance with superceded revisions of the test procedures during refueling outage B2R08. One example of a Non-Cited Violation was issued.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
10/25/1999	1999013	**Pri:** OPS **Sec:**	NRC	POS	**Pri:** 1A **Sec:** **Ter:**	**Refueling Outage B2R08 Shutdown Risk** The licensee developed the schedule for refueling outage B2R08 with a focus on ensuring that defense-in-depth was maintained for the seven key safety functions and the overall unit risk.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
10/25/1999	1999013	**Pri:** OPS **Sec:**	NRC	POS	**Pri:** 1B **Sec:** **Ter:**	**Unit 2 Shutdown for Refueling Outage B2R08** The Unit 2 reactor shutdown and plant cooldown was conducted in a safe and controlled manner for refueling outage B2R08. Specifically, the heightened level of awareness briefings and the "just-in-time" training were effective in preparing the operating crew for the infrequently performed shutdown evolution. In addition, the operating crew demonstrated strong command and control and reactivity management, responded to multiple equipment failures effectively, utilized procedures properly, responded to both anticipated and unexpected annunciators appropriately, and usually used three-way communications.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
09/16/1999	1999012	**Pri:** OPS **Sec:**	NRC	POS	**Pri:** 1A **Sec:** **Ter:**	**Conduct of Operations** Operators responded appropriately to alarms, closely monitored main control room panels, were knowledgeable of plant conditions, and generally used three-way communications. In addition, shift turnover briefings were appropriate, emphasizing plant status, existing limiting conditions for operation, and scheduled maintenance and surveillance testing activities, with one notable exception.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
09/16/1999	1999012	**Pri:** OPS **Sec:**	NRC	POS	**Pri:** 1A **Sec:** **Ter:**	**Appropriate Licensee Response to a Seismic Event** The licensee's response to a minor earthquake, which occurred approximately 30 miles from Byron Station, was appropriate. Operators walked down all accessible plant areas, checked plant structures and equipment, and identified no equipment damage.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						

United States Nuclear Regulatory Commission
PLANT ISSUE MATRIX

By Primary Functional Area

Region III

BYRON

Date	Source	Functional Area	ID	Type	Template Codes	Item Title / Item Description
09/16/1999	1999012-01	**Pri:** OPS **Sec:**	NRC	NCV	**Pri:** 2A **Sec:** **Ter:**	**(A) Failure to correctly align the Unit 1 RCMS in the auto makeup mode following a batch addition of boric ac** A. The licensee failed to control the configuration of the Unit 1 reactor coolant makeup system in accordance with Byron Operating Procedure CV-6, "Operation of the Reactor Makeup System in the Borate Mode," Revision 11. In addition, the licensee did not enter the event into its corrective action program until 16 days after the event due to the operating shift management's failure to implement the process for responding to operational configuration control occurrences. One example of a Non-Cited Violation was issued. B. The licensee failed to control the configuration of a freeze seal following maintenance on the Unit 2 component cooling water system. This was due to the failure to follow Byron Administrative Procedure 330-1, "Station Equipment Out-Of-Service Procedure," Revision 30, and inadequate communications between maintenance and operations department personnel. Consequently, approximately 200 gallons of water inadvertently drained from the system. One example of a Non-Cited Violation was issued.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
08/02/1999	1999010	**Pri:** OPS **Sec:**	NRC	NEG	**Pri:** 1A **Sec:** **Ter:**	**FAILURE TO CONTROL THE CONFIGURATION OF THE U-1B DIESEL OIL STORAGE TANK ROOM FLOOD DOOR I** On July 8, 1999, the licensee rendered the Unit 1B diesel generator inoperable for approximately 3 hours and 45 minutes, while the flood door to the 1B diesel oil storage tank room was left ajar and unattended. The inspectors determined that corrective actions taken by the licensee following a similar event in March 1999, when the Unit 1A diesel oil storage tank room flood door was found open and unattended, were not sufficient to preclude a recurrence. No violation of regulatory requirements occurred since the licensee restored the door to comply with the Technical Specification limiting condition for operation upon discovery and within the required completion time of the limiting condition for operation action statement.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
08/02/1999	1999010	**Pri:** OPS **Sec:**	NRC	POS	**Pri:** 1A **Sec:** **Ter:**	**CONDUCT OF OPERATIONS** Operations of the facility were conducted in a safe, professional, and controlled manner. Shift turnover briefings were performed well, heightened level of awareness briefings for high risk and infrequently performed evolutions were conducted well, and operators appropriately responded to control room annunciators. Operators generally adhered to the station's standards for control room conduct, procedural adherence, and use of three-way communications.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
07/21/1999	1999009	**Pri:** OPS **Sec:**	Licensee	MISC	**Pri:** 5A **Sec:** 3A **Ter:**	**CORRECTIVE ACTION APPROACH TO ADDRESS RECURRING CONFIGURATION CONTROL OCCURRANCES** In June 1998, the licensee identified configuration control as a multi-site issue that affected all sites within the Nuclear Generation Group. In response to the continuing configuration control occurrences, the licensee implemented numerous corrective action initiatives to improve performance in this area. While these initiatives have resulted in improved performance, the continuing events at the Braidwood, Byron, and Quad Cities Stations indicated that the corrective actions had not been fully effective. These occurrences were primarily attributable to human performance deficiencies with the largest contributor to these occurrences involving maintenance activities.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
07/21/1999	1999009	**Pri:** OPS **Sec:**	NRC	NEG	**Pri:** 1A **Sec:** **Ter:**	**EFFECTIVENESS OF COMMUNICATION METHODS** The licensee's communication method (e.g., daily station bulletin handouts, departmental briefings, and bulletin boards) for establishing and maintaining a consistent awareness and understanding of plant issues had not been fully effective.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						

United States Nuclear Regulatory Commission
PLANT ISSUE MATRIX

By Primary Functional Area

Region III

BYRON

Date	Source	Functional Area	ID	Type	Template Codes	Item Title / Item Description
07/21/1999	1999009	**Pri:** OPS **Sec:**	NRC	NEG	**Pri:** 3B **Sec:** **Ter:**	**LICENSEE STAFF KNOWLEDGE - ABNORMAL COMPONENT POSITION PROCESS** The inspectors concluded that with the exception of operators, station personnel were not knowledgeable of the abnormal component position process delineated in Common Work Practice Instruction NSP-OP-1-20, "Operational Configuration Control." **Dockets Discussed:** 05000454 Byron 1 05000455 Byron 2
07/21/1999	1999009	**Pri:** OPS **Sec:**	NRC	NEG	**Pri:** 3B **Sec:** 5A **Ter:**	**FIRST LINE SUPERVISOR REINFORCEMENT OF STANDARDS AND EXPECTATIONS** First line supervision did not meet licensee management's expectation to spend between 40 and 50 percent of their time in the field reinforcing standards and expectations. First line supervision also exhibited an insufficient understanding of the station's performance issues and demonstrated knowledge weaknesses in the areas of verification practices and the abnormal component position process. Consequently, the effectiveness of first line supervision was limited. **Dockets Discussed:** 05000454 Byron 1 05000455 Byron 2
07/21/1999	1999009	**Pri:** OPS **Sec:**	NRC	NEG	**Pri:** 3B **Sec:** 5C **Ter:**	**LICENSEE STAFF KNOWLEDGE - RECOGNITION OF PLANT ISSUES** Station personnel generally did not recognize and understand the configuration control and human performance issues that existed at their site. As a result, the licensee had not been fully effective in improving performance in these areas since station personnel did not recognize the need to improve. **Dockets Discussed:** 05000454 Byron 1 05000455 Byron 2
07/21/1999	1999009	**Pri:** OPS **Sec:**	NRC	NEG	**Pri:** 5A **Sec:** **Ter:**	**SELF-ASSESSMENT OF CONFIGURATION CONTROL AND HUMAN PERFORMANCE** The licensee did not consistently perform self-assessments regarding operational configuration control and human performance to a standard; and in some cases, these assessments were not self-critical. Consequently, the quality and effectiveness of these self-assessments varied significantly. **Dockets Discussed:** 05000454 Byron 1 05000455 Byron 2
07/21/1999	1999009	**Pri:** OPS **Sec:**	NRC	NEG	**Pri:** 5A **Sec:** **Ter:**	**OPERATING EXPERIENCE LESSONS LEARNED PROGRAM - INFORMATION NOTICES** The licensee's evaluation of NRC Information Notice 98-34, "Configuration Control Errors," was incomplete. Specifically, Byron Station focused too narrowly on the specific examples identified in the information notice and did not evaluate the issue generically. **Dockets Discussed:** 05000454 Byron 1 05000455 Byron 2
07/21/1999	1999009	**Pri:** OPS **Sec:**	NRC	NEG	**Pri:** 5A **Sec:** **Ter:**	**OPERATING EXPERIENCE LESSONS LEARNED PROGRAM - NUCLEAR OPERATIONS NOTIFICATIONS** The licensee did not fully utilize the intra-lessons learned program to ensure that configuration control problems identified at other Commonwealth Edison stations were addressed at each site. Specifically, the licensee frequently focused too narrowly on the details of the issue identified in the nuclear operations notification and did not address the causes of the problem. **Dockets Discussed:** 05000454 Byron 1 05000455 Byron 2

United States Nuclear Regulatory Commission
PLANT ISSUE MATRIX

By Primary Functional Area

Region III

BYRON

Date	Source	Functional Area	ID	Type	Template Codes	Item Title / Item Description
07/21/1999	1999009	**Pri:** OPS **Sec:**	NRC	NEG	**Pri:** 5B **Sec:** **Ter:**	**CORPORATE NUCLEAR OVERSIGHT FIVE STATION CONFIGURATION CONTROL ASSESSMENT** The licensee implemented corrective actions to address the issues identified during the Corporate Nuclear Oversight Five Station Configuration Control Assessment, which was conducted in June 1998, with the following exception. The licensee had not implemented corrective actions to address the finding that nuclear oversight inconsistently responded to configuration control events and missed opportunities to provide the stations with configuration control event insights.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
07/21/1999	1999009	**Pri:** OPS **Sec:**	NRC	NEG	**Pri:** 5B **Sec:** **Ter:**	**EFFECTIVENESS REVIEW OF IMPLEMENTED CORRECTIVE ACTIONS** The licensee did not fully utilize the effectiveness review process to evaluate implemented corrective actions to address recurring configuration control issues. Consequently, the licensee had missed opportunities to proactively identify which corrective action initiatives had not been fully effective in addressing the long-standing configuration control issues at each of these stations.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
07/21/1999	1999009	**Pri:** OPS **Sec:**	NRC	NEG	**Pri:** 5C **Sec:** **Ter:**	**NUCLEAR GENERATION GROUP CONFIGURATION CONTROL ACTION PLAN** Several of the Nuclear Generation Group Configuration Control Action Plan items had not been completed. In addition, the licensee had not evaluated the effectiveness of the action plan in addressing the long-standing configuration control issue at each of the sites.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
07/21/1999	1999009	**Pri:** OPS **Sec:**	NRC	NEG	**Pri:** 5C **Sec:** **Ter:**	**NUCLEAR OVERSIGHT ASSESSMENT OF CONFIGURATION CONTROL** The inspectors concluded that the site nuclear oversight organizations were occasionally not effective at identifying precursor level issues prior to their manifestation in plant events. In addition, site nuclear oversight organizations were not consistently escalating long-standing issues to ensure that the issues were addressed effectively and in a timely manner.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
07/21/1999	1999009	**Pri:** OPS **Sec:**	NRC	POS	**Pri:** 1A **Sec:** **Ter:**	**LICENSEE STAFF KNOWLEDGE - AUTHORIZATION TO OPERATE PLANT EQUIPMENT** Station personnel generally understood who was authorized to operate plant equipment and their understanding was consistent with the station's policies.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
07/21/1999	1999009	**Pri:** OPS **Sec:**	NRC	POS	**Pri:** 5A **Sec:** **Ter:**	**NUCLEAR OVERSIGHT ASSESSMENT OF CONFIGURATION CONTROL** The inspectors concluded that the Nuclear Oversight Monthly Issues Report contained a thorough evaluation of the issues that needed to be resolved at each station.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						

United States Nuclear Regulatory Commission
PLANT ISSUE MATRIX

By Primary Functional Area

Region III

BYRON

Date	Source	Functional Area	ID	Type	Template Codes	Item Title / Item Description
07/21/1999	1999009	**Pri:** OPS **Sec:**	NRC	POS	**Pri:** 5C **Sec:** **Ter:**	**NUCLEAR GENERATION GROUP CONFIGURATION CONTROL ACTION PLAN** The Nuclear Generation Group Configuration Control Action Plan represented a comprehensive corrective action initiative.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
07/21/1999	1999009	**Pri:** OPS **Sec:**	NRC	WK	**Pri:** 1C **Sec:** **Ter:**	**IMPLEMENTATION OF CONFIGURATION CONTROL PROCESSES** The licensee did not consistently implement the standardized processes for operational configuration control and verification practices. In addition, the policies and expectations were not proceduralized, and differences existed regarding who was authorized to manipulate plant equipment. The implementation of processes at each site which had not been standardized including aspects of the out-of-service program, the system line-up process, and the locked valve program. These inconsistencies were notable since the licensee frequently shared personnel between sites. These individuals may not be aware of the differences.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
07/21/1999	1999009	**Pri:** OPS **Sec:**	NRC	WK	**Pri:** 1C **Sec:** **Ter:**	**DEFICIENCIES WITH THE IMPLEMENTATION OF THE STANDARDIZED PROCEDURES** The manner in which standardized procedures had been implemented at each of the sites resulted in a large backlog of procedures in the review and approval process. Consequently, some standardized procedures were not implemented in a timely manner. In addition, a lack of rigor in the licensee's implementation of the procedural review and approval process resulted in multiple procedures existing for the same topic and insufficient training on some procedure changes. This contributed to knowledge weaknesses regarding the implementation of verification practices and the abnormal component position process.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						

United States Nuclear Regulatory Commission
PLANT ISSUE MATRIX
By Primary Functional Area

Region III
BYRON

Date	Source	Functional Area	ID	Type	Template Codes	Item Title / Item Description
07/21/1999	1999011-01	**Pri:** OPS **Sec:**	NRC	NCV	**Pri:** 3C **Sec:** **Ter:**	**Overtime Deviations Had Been Approved After the Overtime was Worked** The licensee concluded that overtime was being controlled in accordance with established management expectations, yet 2.2% of the overtime deviations had been approved after the overtime was worked in violation of station procedures. The corrective action taken to address a previous, similar violation issued in 1995 reduced the rate of occurrence of these violations but was not fully effective to prevent recurrence of "after the fact" overtime approval. The licensee failed to identify the problem through its self-assessment program until prompted by the NRC. This violation was entered into the corrective action program through Self-Assessment SF-SS-103, Revision 1, dated May 14, 1999. In addition, it concluded that overtime usage did not cross into the realm of routine and that staffing has been maintained to support the operational requirements of the station. On average, the Byron Station management approved more than one overtime deviation each day the plant was operating. The deviation approval rate for outage periods approached nine deviations per day. The staff indicated that the majority of those deviations represented employees working in excess of 72 hours in one week. The data supplied by the staff indicated that control room operators worked an average of 7.5 hours of overtime per week during non-outage times. The NRC believed that the station's overtime practices may not have met the guidelines of Generic Letter (GL) 82-12 as required by Byron Station Technical Specifications with regard to work hours during a normal work week and the frequency of overtime deviations during outages. The NRC is reassessing the Commission's "Policy on Factors Causing Fatigue of Operating Personnel at Nuclear Reactors" and will be considering alternative regulatory approaches as part of this process. Based on ComEd's commitment, the NRC will not attempt to further evaluate the work hour statistics presented or determine whether other violations occurred regarding the quantity of overtime worked at the Byron Station. The NRC will continue to follow up on safety significant events to determine the root cause, including the potential contribution of personnel fatigue. The NRC concluded that the staff violated NRC requirements concerning overtime deviation approval. One noncited violation was issued. **Dockets Discussed:** 05000454 Byron 1 05000455 Byron 2
06/21/1999	1999008	**Pri:** OPS **Sec:**	NRC	POS	**Pri:** 1A **Sec:** **Ter:**	**GENERAL OBSERVATIONS** The inspectors concluded that operations of the facility were conducted in a safe, professional, and controlled manner. Operators generally adhered to the station's standards for control room conduct, procedural adherence, annunciator response, and use of three-way communications. **Dockets Discussed:** 05000454 Byron 1 05000455 Byron 2
06/21/1999	1999008	**Pri:** OPS **Sec:**	NRC	POS	**Pri:** 1B **Sec:** **Ter:**	**RESPONSE TO UNIT 1 REACTOR TRIP DURING PERFORMANCE OF NUCLEAR INSTRUMENTATION CALIBRATIC** The inspectors concluded that the licensee's response to the Unit 1 automatic reactor trip from full power was excellent. Operators effectively controlled and stabilized plant parameters and all plant safety-related systems operated as designed. The shift manager and unit supervisor demonstrated strong command and control throughout the event. The inspectors concluded that the Unit 1 reactor startup was conducted in a safe and controlled manner. Operators precisely controlled reactivity manipulations, followed plant startup procedures, performed peer and self-checks, and generally used proper three-way communication techniques. The inspectors also concluded that senior reactor operators demonstrated strong command and control, directly supervised reactivity manipulations, and provided effective oversight of the startup activities. **Dockets Discussed:** 05000454 Byron 1 05000455 Byron 2

United States Nuclear Regulatory Commission
PLANT ISSUE MATRIX

By Primary Functional Area

Region III

BYRON

Date	Source	Functional Area	ID	Type	Template Codes	Item Title / Item Description
06/21/1999	1999008-02	**Pri:** OPS **Sec:** MAINT	NRC	NCV	**Pri:** 1C **Sec:** **Ter:**	**DESIGN PACKAGE FAILS TO CLASSIFY FEEDWATER VENT VALVES AS CONTAINMENT ISOLATION VALVES A** The inspectors concurred with the licensee's conclusion that position verification of four feedwater system containment penetration high point vent valves had not been performed at the frequency required by Technical Specification Surveillance Requirement SR 3.6.3.3. A Non-Cited Violation was issued.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
05/10/1999	1999004	**Pri:** OPS **Sec:**	NRC	NEG	**Pri:** 1A **Sec:** **Ter:**	**Failure to Follow a Procedure Resulted in Operation of Unit 1A Safety Injection Pump with an Inadequate Su** The inspectors concluded that the licensee failed to control the configuration of the residual heat removal system during emergency core cooling system full flow testing, which resulted in operation of the Unit 1A safety injection pump with an inadequate suction to the pump.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
05/10/1999	1999004	**Pri:** OPS **Sec:**	NRC	POS	**Pri:** 1B **Sec:** **Ter:**	**Conduct of Operations - General Observations** The inspectors concluded that operations of the facility were conducted in a safe, professional, and controlled manner. Operators generally adhered to the station's standards for control room conduct, procedural adherence, annunciator response, and use of three-way communications. The inspectors concluded that the licensee's response to a tube leak on the 21A drain cooler was excellent. The licensee appropriately assessed and controlled plant conditions to effect repairs and return Unit 2 to full power.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
05/10/1999	1999004	**Pri:** OPS **Sec:**	NRC	POS	**Pri:** 1B **Sec:** **Ter:**	**Unit 1 Startup Following Refueling Outage B1R09** The inspectors concluded that the Unit 1 reactor startup following refueling outage B1R09 was conducted in a safe and controlled manner. Specifically, just-in-time simulator training was performed in preparation for the startup, the heightened level of awareness briefing was performed well, startup and physics testing procedures were followed, proper three-way communication techniques were used, peer and self-checks were performed, and reactivity manipulations were precisely controlled. The inspectors concluded that operators demonstrated a good safety focus while addressing emergent problems in that operators promptly identified the unexpected conditions, stabilized plant conditions, approached the problems by identifying conservative corrective actions, and implemented those actions in accordance with approved procedures. The inspectors also concluded that supervisors demonstrated good command and control, directly supervised reactivity manipulations, and provided effective oversight of the startup activities.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
05/10/1999	1999004-02	**Pri:** OPS **Sec:**	NRC	NCV	**Pri:** 3A **Sec:** 2B **Ter:**	**(A) Inadequate technical review of out-of-service prepared for essential service water return header cross-co** The inspectors concluded that the licensee failed to perform an adequate technical review for the out-of-service of essential service water return header cross-connect valve (1SX011) during maintenance work to rebuild the valve's actuator. Consequently, the valve was taken out-of-service in the "open" position for the maintenance work rather than in the "closed" position as specified in Design Change Procedure 9800239. A Non-Cited Violation was issued. (02a) The inspectors concluded that three out-of-service errors resulted in operational events during the four week B1R09 refueling outage, which was an improvement from the B2R07 outage period when nine out-of-service errors resulted in operational events. The inspectors concluded that three recent out-of-service errors had similar weaknesses previously identified by the inspectors during the previous refueling outage (B2R07) and discussed in NRC Inspection Report 50-454/455-98011(DRP). A Non-Cited Violation was issued. (02b)
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						

United States Nuclear Regulatory Commission
PLANT ISSUE MATRIX

By Primary Functional Area

Region III

BYRON

Date	Source	Functional Area	ID	Type	Template Codes	Item Title / Item Description
05/10/1999	1999004-03	**Pri:** OPS **Sec:**	NRC	NCV	**Pri:** 1A **Sec:** **Ter:**	**Failure to implement Technical Requirements Manual surveillance requirement to monitor engineered safety** The inspectors concluded that the licensee failed to control the configuration of the engineered safety features (ESF) switchgear ventilation system consistent with the design basis description in the Updated Final Safety Analysis Report (UFSAR) and that the system failure analysis described in the UFSAR was not consistent with the actual failure response of the system. Furthermore, the inspectors concluded that by not monitoring the temperature of the essential service water cooling tower electric substations, the licensee did not appropriately monitor temperatures of ESF switchgear ventilation system areas consistent with Technical Requirements Manual surveillance requirement 3.7.d.1. A Non-Cited Violation was issued.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
05/10/1999	1999004	**Pri:** OPS **Sec:** MAINT	NRC	POS	**Pri:** 3A **Sec:** **Ter:**	**Unit 1 Refueling Activities During B1R09** The inspectors concluded that observed fuel handling evolutions were performed well and in accordance with the requirements of the Technical Specifications and station fuel handling procedures. Core alterations were strictly controlled and appropriate accountability measures were followed.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
05/10/1999	1999004-01	**Pri:** OPS **Sec:** ENG	NRC	NCV	**Pri:** 2A **Sec:** 5C **Ter:**	**Failure to implement safety evaluation procedure for lowering of suspended fue assembly.** The inspectors concluded that the licensee's response to the failure of the Unit 1 refueling machine hoist with an irradiated fuel assembly suspended from the machine's grapple was excellent. The licensee controlled and accomplished the task of lowering the fuel assembly to a designated core location in accordance with approved procedures and with a proper focus on safety. The inspectors also concluded that the 10 CFR 50.59 safety evaluation, which was approved by the Plant Operations Review Committee to lower the suspended fuel assembly, failed to address the licensing basis for movements of heavy loads over the reactor vessel as it pertained to the evolution; failed to address the effects of bypassing refueling machine interlocks described in the Updated Final Safety Analysis Report (UFSAR); and, failed to identify temporary changes to words in the UFSAR. A Non-Cited Violation was issued.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
03/29/1999	1999003	**Pri:** OPS **Sec:**	NRC	MV	**Pri:** 1A **Sec:** **Ter:**	**Failure to Implement Corrective Actions Resulted in the Inadvertent Loss of the Unit 2 Fuel Pool Cooling Pum** The inspectors concluded that the licensee failed to implement corrective actions that were identified following an event in November 1996, in which the Unit 2 fuel cooling pump control switch had been inadvertently bumped to the "after-trip" position. As a result, the licensee failed to prevent a recurrence of the same event. This failure constitutes a violation of minor significance and is not subject to formal enforcement action.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
03/29/1999	1999003	**Pri:** OPS **Sec:**	NRC	NEG	**Pri:** 1A **Sec:** 3A **Ter:**	**Failure to Control the Configuration of the Unit 1 Diesel Oil Stroage Tank Room Flood Door Rendered the 1A** The inspectors concluded that the licensee rendered the Unit 1A emergency diesel generator inoperable for approximately 4 hours while the north flood door to the 1A diesel oil storage tank room was left open and unattended. However, no violation of regulatory requirements occurred since the licensee restored the door to comply with the technical specification limiting condition for operation (LCO) upon discovery and within the required completion time of the LCO action statement.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						

United States Nuclear Regulatory Commission
PLANT ISSUE MATRIX

By Primary Functional Area

Region III

BYRON

Date	Source	Functional Area	ID	Type	Template Codes	Item Title / Item Description
03/29/1999	1999003	**Pri:** OPS **Sec:**	NRC	NEG	**Pri:** 1C **Sec:** **Ter:**	**Miscommunication and an Inadequate Procedure Resulted in a Potential Chemical Transfer Accident.** The inspectors concluded that mis-communication and inadequate procedures resulted in a potential chemical transfer accident, in which the licensee nearly transferred sodium hydroxide (a strong caustic solution) from a delivery truck into a storage tank containing sulfuric acid.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
03/29/1999	1999003	**Pri:** OPS **Sec:**	NRC	POS	**Pri:** 1B **Sec:** **Ter:**	**Unit 1 Shutdown for Refueling Outqage B1R09** The inspectors concluded that the Unit 1 reactor shutdown for Refueling Outage B1R09 was conducted in a safe and controlled manner. Specifically, the heightened level of awareness briefing was thorough, simulator training was effectively utilized by operators to prepare for the evolution, management oversight was evident, and operations command and control of the evolution was effective. The inspectors also concluded that operators adhered to the station's standards for reactivity management, professionalism, control room conduct, procedural adherence, annunciator response, and generally used three-way communications.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
03/29/1999	1999003	**Pri:** OPS **Sec:**	NRC	STR	**Pri:** 1A **Sec:** **Ter:**	**General Observations of Operations** The inspectors concluded that routine operations were conducted in a safe, professional, and controlled manner. Operators adhered to the station's standards for reactivity management, professionalism, control room conduct, procedural adherence, annunciator response, and generally used three-way communications. This observation has been consistent over the past several inspection periods.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
03/29/1999	1999003-01	**Pri:** OPS **Sec:**	NRC	NCV	**Pri:** 1C **Sec:** **Ter:**	**Failure to follow procedure for radioactive liquid effluent release from an untested path.** The inspectors concluded that the licensee failed to control the configuration of the treated waste system during a planned liquid effluent release evolution by performing the release via an unintended and untested release path. A Non-Cited Violation was issued for the licensee's failure to implement Byron Chemical Control Procedure 400-TWX01, "Liquid Radwaste Release Form for Release Tank OWX01T," Revision 14.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
03/29/1999	1999003-02	**Pri:** OPS **Sec:**	NRC	NCV	**Pri:** 5A **Sec:** 5C **Ter:**	**exceed licensed power level due to calorimetric instrument discrepancy.** The inspectors concurred with the licensee's conclusion that prior to January 1998 both Units 1 and 2 were operated in excess of their licensed thermal power levels as a result of a discrepancy identified with the steam generator blowdown flow totalizer recorder scaling, which affected the accuracy of the thermal power calorimetric calculation in a nonconservative direction. A Non-Cited Violation was issued.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
02/16/1999	1999002	**Pri:** OPS **Sec:**	NRC	NEG	**Pri:** 1A **Sec:** **Ter:**	**INADVERTENT CHEMICAL ADDITION TO TREATED RUNOFF SYSTEM DUE TO VALVE MISALIGNMENT.** The inspectors concurred with the licensee's conclusion that the operators failed to control the configuration of chemical feed system drain valve which resulted in the inadvertent transfer of approximately 4800 gallons of liquid (including approximately 400 gallons of sodium hypochlorite) to the treated runoff system. The inspectors also concluded that previous corrective actions for a similar configuration control event, which was documented in NRC Inspection Report 50-454/98025(DRP); 50-455/98025(DRP), were not totally effective in preventing a recurrence. No violation of regulatory requirements occurred since the deficiency involved the nonsafety-related chemical feed system.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						

United States Nuclear Regulatory Commission
PLANT ISSUE MATRIX

By Primary Functional Area

Region III

BYRON

Date	Source	Functional Area	ID	Type	Template Codes	Item Title / Item Description
02/16/1999	1999002	**Pri:** OPS **Sec:**	NRC	NEG	**Pri:** 1A **Sec:** **Ter:**	**UNIT 2 LOSS OF CONDENSER VACUUM DUE TO OUT-OF-SERVICE (OOS) ERROR.** The inspectors concurred with the licensee's conclusion that operators failed to control the configuration of the 2A condensate/condensate booster pump casing vent valves, due to errors in the implementation of the out-of-service program. These errors resulted in the inadvertent degradation of condenser vacuum and the subsequent reduction in Unit 2 power level by approximately 30 megawatts electrical. No violation of regulatory requirements occurred since the deficiency involved the nonsafety-related condensate system.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
02/16/1999	1999002	**Pri:** OPS **Sec:**	NRC	NEG	**Pri:** 1B **Sec:** **Ter:**	**BLOCKAGE OF THE RIVER SCREEN HOUSE TRAVELING SCREENS WITH LEAVES AND ICE.** The inspectors concluded that the operators' response was appropriate to the blockage of the river screen house traveling screens and the resultant loss of water level in the intake bay. The inspectors also concluded that the licensee's failure to complete operator training for a recently installed modification to the traveling screen differential level instrumentation resulted in confusion over intake bay level during the transient. No violation of regulatory requirements were identified.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
02/16/1999	1999002	**Pri:** OPS **Sec:**	NRC	NEG	**Pri:** 5A **Sec:** **Ter:**	**INEFFECTIVE COMMUNICATIONS BETWEEN THE PLANT OPERATIONS REVIEW COMMITTEE AND THE OPERA** The inspectors identified that informality and deficiencies in the conduct of Plant Operations Review Committee (PORC) Meeting 99-03 resulted in mis-communication between the PORC and the operating shift regarding the action plan for exiting the Technical Specification shutdown action requirement for an inoperable reactor trip breaker. Specifically, the operating shift did not implement the action plan as the PORC intended. The inspectors also concluded that the actions taken by the operating shift did not place the unit at increased risk.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
02/16/1999	1999002	**Pri:** OPS **Sec:**	NRC	POS	**Pri:** 1A **Sec:** **Ter:**	**ROUTINE OBERVATIONS OFOPERATIONS.** The inspectors concluded that routine operations of the facility were conducted in a professional, safe and controlled manner. Operators responded appropriately to alarms, closely monitored main control room panels, were knowledgeable of plant conditions, properly used procedures, and generally used three-way communications.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
01/18/2000	1999020	**Pri:** MAINT **Sec:**	NRC	POS	**Pri:** 2A **Sec:** 2B **Ter:** 3B	**SURVEILLANCE TEST AND MAINTENANCE OBSERVATIONS** Observed surveillance tests were performed well. Each of the tested components met their respective acceptance criteria and each of the surveillance tests were found to satisfy the requirements of the Technical Specifications. Observed maintenance activities were generally conducted well. Maintenance personnel were knowledgeable of the tasks and professionally completed the work.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
01/18/2000	1999020	**Pri:** MAINT **Sec:** OPS	NRC	MV	**Pri:** 2B **Sec:** **Ter:**	**MAINTENANCE RULE REVIEW OF THE ESSENTIAL SERVICE (SX) WATER SYSTEM ULTIMATE HEAT SINK TEMP** The inspectors concluded that the licensee failed to appropriately assess performance criteria for the essential service water (SX) system ultimate heat sink temperature control function when the 0B SX cooling tower to basin bypass valve, 0SX162B, exceeded its availability criteria during maintenance work in September 1998. The inspectors also concluded that the operations department's delay in returning 0SX162B to service resulted in unnecessary unavailability of the valve.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						

United States Nuclear Regulatory Commission
PLANT ISSUE MATRIX

By Primary Functional Area

Region III

BYRON

Date	Source	Functional Area	ID	Type	Template Codes	Item Title / Item Description
12/06/1999	1999019	**Pri:** MAINT **Sec:**	NRC	MISC	**Pri:** 2A **Sec:** **Ter:**	**Material Condition of the Unit 2 Containment Building Prior to Startup Following Refueling Outage B2R08** Material condition in the Unit 2 containment building prior to entry into Mode 3 (hot standby) was generally good and loose items identified by the inspectors posed no significant risk to emergency core cooling system operability.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
12/06/1999	1999019	**Pri:** MAINT **Sec:**	NRC	POS	**Pri:** 2B **Sec:** 2A **Ter:** 3B	**Surveillance Test Observations and Maintenance Observations** Observed surveillance tests were performed well. Specifically, the surveillance tests satisfied the requirements of the Technical Specifications and each of the tested components met their respective acceptance criteria and remained operable. Observed maintenance activities were generally conducted well. Maintenance personnel were knowledgeable of the tasks and professionally completed the work. The emergency core cooling system full flow surveillance tests satisfied the requirements of TSs and the Technical Requirements Manual, as appropriate, and each of the tested components met their respective acceptance criteria and remained operable with two exceptions. The 2B safety injection cold leg check valve (2SI8819B) and the flow balance verification of the cold leg injection from the safety injection pump did not satisfy the test acceptance criteria, but were subsequently determined to be acceptable based on licensee engineering evaluations.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
12/06/1999	1999019	**Pri:** MAINT **Sec:** OPS	NRC	NEG	**Pri:** 3A **Sec:** **Ter:**	**Loss of Electrical Power to the 4160 Volt Non-Safety Related Bus 244 During Breaker Testing** A loss of electrical power to the 4160 volt non-safety related electrical Bus 244 occurred during testing of the unit auxiliary transformer feed breaker. This resulted from not conducting a formal pre-job briefing for the testing, operational analysis department (OAD) personnel not reviewing the existing procedural guidance and schematics prior to performing the testing, and OAD personnel not using the existing procedural guidance during the testing. No violations of regulatory requirements occurred since the testing involved non-safety related equipment.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
10/25/1999	1999013	**Pri:** MAINT **Sec:**	NRC	NEG	**Pri:** 2B **Sec:** 3A **Ter:**	**Maintenance Observations** The inspectors identified that maintenance work related documents were not appropriately signed as completed during the performance of a maintenance activity on an essential service water pump. The inspectors also noted that during this inspection period, nuclear oversight personnel identified eight similar occurrences where maintenance personnel did not properly complete work package documentation during the performance of maintenance activities. No violation of regulatory requirements was identified.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
10/25/1999	1999013	**Pri:** MAINT **Sec:**	NRC	POS	**Pri:** 2A **Sec:** 3B **Ter:**	**Maintenance Observations** Observed maintenance activities were generally conducted well. Maintenance personnel were knowledgeable of the tasks and professionally completed the work. In particular, the replacement of circuit cards in the Unit 1 Train B solid state protection system was performed well.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						

United States Nuclear Regulatory Commission
PLANT ISSUE MATRIX

By Primary Functional Area

Region III

BYRON

Date	Source	Functional Area	ID	Type	Template Codes	Item Title / Item Description
10/25/1999	1999013	**Pri:** MAINT **Sec:**	NRC	POS	**Pri:** 2B **Sec:** **Ter:**	**Surveillance Test Observations** The inspectors concluded that the observed surveillance tests were performed well. Specifically, the surveillance tests satisfied the requirements of the Technical Specifications and each of the tested components met their respective acceptance criteria and remained operable with the exception of the Unit 2 turbine mechanical overspeed trip mechanism, which tripped the main turbine at a lower speed than required by the surveillance acceptance criteria.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
10/25/1999	1999013	**Pri:** MAINT **Sec:**	NRC	POS	**Pri:** 2B **Sec:** 2A **Ter:**	**Essential Service Water System Maintenance Rule Review** With respect to Maintenance Rule, the licensee properly classified each essential service water structure, system, and component (SSC) function reviewed and had established appropriate performance criteria in accordance with 10 CFR 50.65. In addition, the licensee implemented reasonable corrective actions and established appropriate goals, commensurate with safety, in response to essential service water SSC functions exceeding the established performance criteria.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
09/16/1999	1999012	**Pri:** MAINT **Sec:**	NRC	NEG	**Pri:** 2A **Sec:** 2B **Ter:**	**Foreign Material Exclusion At the River Screen House** The licensee did not implement effective foreign material exclusion controls at the river screen house, which resulted in the fouling of the first stage of the 0B circulating water system makeup pump with a rubber hose. In addition, the licensee's corrective actions for this event were narrowly focused and did not address the licensee's process for implementing foreign material exclusion controls for normally open areas susceptible to intrusion of foreign materials like the river screen house. No violation of regulatory requirements occurred since the deficiency involved the non-safety related circulating water system.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
09/16/1999	1999012	**Pri:** MAINT **Sec:**	NRC	POS	**Pri:** 2A **Sec:** 3A **Ter:**	**Surveillance Test Observations** The inspectors concluded that the observed surveillance tests were performed well. Specifically, the surveillance tests satisfied the requirements of the Technical Specifications (TS); and each of the tested components met their respective acceptance criteria and remained operable with the exception of the train B containment spray engineered safety features actuation system relay K-643, which the licensee repaired within the TS allowed outage time.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
08/02/1999	1999010	**Pri:** MAINT **Sec:**	NRC	NEG	**Pri:** 2A **Sec:** **Ter:**	**MATERIAL CONDITION DEFICIENCIES NOT ENTERED INTO CORRECTIVE MAINTENANCE PROGRAM** The licensee was not pro-active and had missed prior opportunities to identify multiple material condition deficiencies in the plant and had failed to enter those material condition deficiencies into the corrective maintenance program for repairs.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
08/02/1999	1999010	**Pri:** MAINT **Sec:**	NRC	POS	**Pri:** 3A **Sec:** 3B **Ter:**	**MAINTENANCE OBSERVATIONS** Observed maintenance activities were conducted well. Maintenance personnel were knowledgeable of the tasks and professionally completed the work. In particular, maintenance associated with the replacement of a degraded cell in the Unit 2 train B safety-related 125 volt battery was planned and executed well.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						

United States Nuclear Regulatory Commission
PLANT ISSUE MATRIX

By Primary Functional Area

Region III

BYRON

Date	Source	Functional Area	ID	Type	Template Codes	Item Title / Item Description
08/02/1999	1999010	**Pri:** MAINT **Sec:** ENG	NRC	POS	**Pri:** 3A **Sec:** **Ter:**	**SAFETY-RELATED BATTERY CELL JUMPER INSTALLATION** The installation of a jumper to bypass a potentially degraded cell on the Unit 2 train B safety-related 125 volt battery was performed well. Specifically, maintenance and engineering department personnel were knowledgeable of the tasks; compensatory actions commensurate with the risk significance of the activity were implemented; and, work was performed in accordance with station procedures for performing emergent work. **Dockets Discussed:** 05000454 Byron 1 05000455 Byron 2
08/02/1999	1999010-01	**Pri:** MAINT **Sec:** ENG	NRC	NCV	**Pri:** 3C **Sec:** **Ter:**	**(A)FAILURE TO ADEQUATELY TEST 2B AUX. FEEDWATER PUMP CONTROL CIRCUIT FOLLOWING MAINTENAN** Post-maintenance testing assigned to replacement of the 2B auxiliary feedwater (AF) pump and the 0B essential service water make-up pump control power diodes was not adequate to demonstrate operability of the control circuit following the maintenance. Two examples of a Non-Cited Violation were issued. **Dockets Discussed:** 05000454 Byron 1 05000455 Byron 2
06/21/1999	1999008	**Pri:** MAINT **Sec:**	NRC	NEG	**Pri:** 2A **Sec:** **Ter:**	**SURVEILLANCE TEST OBSERVATIONS** The inspectors concluded that the observed surveillance tests were generally performed well and satisfied the requirements of the Technical Specifications. The inspectors identified oil leaking from the 2B auxiliary feedwater pump's outboard motor end bearing while the pump was running, which was caused by operators over-filling the pump's oil reservoir. The inspectors concurred with the licensee that over-filling the reservoir did not affect the operability of the pump; however, it was a poor practice. **Dockets Discussed:** 05000454 Byron 1 05000455 Byron 2
06/21/1999	1999008-01	**Pri:** MAINT **Sec:**	NRC	NCV	**Pri:** 3A **Sec:** **Ter:**	**HUMAN PERFORMANCE ERROR DURING PERFORMANCE OF NUCLEAR INSTRUMENTRATION CALIBRATION RI** The inspectors concurred with the licensee's conclusion that on May 13, 1999, an instrument maintenance technician incorrectly removed instrument power fuses from power range nuclear instrument channel N-42 while performing a calibration of channel N-43. This was due to inattention to detail and a failure to adhere to station management's expectations for self-checking and peer-checking. This procedural adherence error resulted in an Unit 1 automatic reactor trip from full power. A Non-Cited Violation was issued. **Dockets Discussed:** 05000454 Byron 1 05000455 Byron 2
06/21/1999	1999008	**Pri:** MAINT **Sec:** ENG	NRC	POS	**Pri:** 3B **Sec:** 4B **Ter:**	**UNIT 2 OPERATING TEMPERATURE INCREASE** The inspectors concluded that instrument maintenance technicians who performed setpoint scaling adjustments associated with the Unit 2 operating temperature increase were thoroughly knowledgeable of the tasks and professionally completed the work. The inspectors concluded that an engineering design change to Unit 2 which increased the unit's operating temperature to 583 degrees Fahrenheit was well prepared and executed. Specifically, setpoint scaling changes were appropriate for the operating temperature increase, the procedure provided clear instructions to perform the work, and operators received an appropriate level of training prior to implementing the change to the facility. **Dockets Discussed:** 05000454 Byron 1 05000455 Byron 2

United States Nuclear Regulatory Commission
PLANT ISSUE MATRIX

By Primary Functional Area

Region III

BYRON

Date	Source	Functional Area	ID	Type	Template Codes	Item Title / Item Description
05/10/1999	1999004	**Pri:** MAINT **Sec:**	NRC	NEG	**Pri:** 5C **Sec:** **Ter:**	**Human Performance Error During 1B Emergency Diesel Generator Surveillance Testing Resulted in Tripping** The inspectors concurred with the licensee's conclusion that multiple human performance deficiencies were the cause for electrical maintenance personnel installing an electrical jumper on the wrong relay while performing surveillance testing on the 1B emergency diesel generator. This caused an inadvertent trip of the common component cooling water pump. Although this event had minimal safety impact, the inspectors were concerned that the licensee's corrective actions for similar previous human performance errors have not been totally effective at preventing their recurrence.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
05/10/1999	1999004	**Pri:** MAINT **Sec:**	NRC	POS	**Pri:** 2A **Sec:** **Ter:**	**Inspection of the Unit 1 Containment Building Prior to Startup Following Refueling Outage B1R09** The inspectors concluded that material condition in the Unit 1 containment building prior to entry into mode 3 (hot shutdown) was good and that loose items identified by the inspectors posed no significant risk to emergency core cooling system operability.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
05/10/1999	1999004	**Pri:** MAINT **Sec:**	NRC	POS	**Pri:** 3C **Sec:** **Ter:**	**Surveillancd Test Observations** The inspectors concluded that the observed surveillance tests were performed well and satisfied the requirements of the Technical Specifications. The inspectors identified that a step in the Unit 1 motor driven auxiliary feedwater pump monthly surveillance test procedure incorrectly stated that the procedure met surveillance test requirements that it did not meet; however, the inspectors concluded that those requirements were met by other surveillance test procedures.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
05/10/1999	1999004-04	**Pri:** MAINT **Sec:**	NRC	NCV	**Pri:** 5C **Sec:** **Ter:**	**Failure to complete a quality control inspection hold point during 1A cold leg loop stop isolation valve repair** The inspectors concluded that observed maintenance work on the 1A reactor coolant system cold leg loop stop isolation valve was generally performed well; maintenance personnel were knowledgeable of the associated activities; and, work was performed in accordance with station procedures with one notable exception. The inspectors concluded that the licensee failed to complete a final cleanliness inspection quality control hold point prior to re-assembly of the valve which resulted in foreign material left in the reactor coolant system following the maintenance. A Non-Cited Violation was issued.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
05/10/1999	1999004-05	**Pri:** MAINT **Sec:**	NRC	NCV	**Pri:** 2A **Sec:** **Ter:**	**1B main steam isolation valve packing adjustment without operation's authorization and appropriate work ins** The inspectors concluded that mechanical maintenance personnel adjusted the stem packing on the 1B main steam isolation valve (MSIV) without approved work instructions and operations department authorization for the activity, which rendered the valve inoperable. The inspectors concluded that operators took appropriate actions to promptly address the operability of the 1B MSIV and correctly implemented the required actions of the Technical Specifications. A Non-Cited Violation was issued.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						

United States Nuclear Regulatory Commission
PLANT ISSUE MATRIX

By Primary Functional Area

Region III

BYRON

Date	Source	Functional Area	ID	Type	Template Codes	Item Title / Item Description
04/22/1999	1999005	**Pri:** MAINT **Sec:** ENG	NRC	POS	**Pri:** 2A **Sec:** 2B **Ter:**	**ISI Program, Steam Generator Inspection Program, and Flow Accelerated Corrosion Program** ISI program requirements were implemented in accordance with Regulatory and American Society of Mechanical Engineers (ASME) Code requirements. The steam generator inspection program for the recently replaced (first cycle) steam generators (SG) was conservative and included 100% examination of SG tubing in SGs B, C and D and secondary side visual examination for loose parts and sludge lancing for all four SGs. The examination and maintenance of the steam generators and Class one and two components were performed satisfactorily. The Flow Accelerated Corrosion Program is modeled to the most current industry guidelines. Repairs and replacements use upgraded materials to reduce wear rates.
Dockets Discussed: 05000454 Byron 1						
04/22/1999	1999005	**Pri:** MAINT **Sec:** ENG	NRC	POS	**Pri:** 2B **Sec:** 3B **Ter:** 4C	**ISI Program Procedures, Knowledge and Performance of the Engineering Staff, and the Master Assessment F** Procedures were thorough and documentation was completed per procedure and applicable Code requirements. The knowledge and performance of the engineering staff and contractors in the area of ISI was good. The licensee staff was intimately involved in emerging issues and resolution of problems. The Master Assessment Plan (NOP-38) contained detailed assessment tasks. The in-process assessment of inspection contractors appeared rigorous.
Dockets Discussed: 05000454 Byron 1						
03/29/1999	1999003	**Pri:** MAINT **Sec:**	NRC	POS	**Pri:** 2A **Sec:** **Ter:**	**Surveillance Test Observations** The inspectors concluded that the observed surveillance tests were performed well and satisfied the requirements of the Technical Specifications. The inspectors identified an error in the calculation of the acceptance criteria for the auxiliary feedwater pump full-flow testing to the steam generators; however, the error did not change the overall results of the test and were considered of minor significance.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
03/29/1999	1999003-03	**Pri:** MAINT **Sec:**	NRC	NCV	**Pri:** 2A **Sec:** 3A **Ter:**	**(A) Failure to process a major revision to work instructions to delete requirements for installation and inspec** The inspectors concluded that minimum bend radii for two flexible hoses installed on the 1A emergency diesel generator fuel oil drain line was violated during installation. This was due to a mechanical maintenance first-line supervisor improperly deleting the appropriate requirements for the installation and inspection of the hoses from the maintenance work instructions. In addition, mechanical maintenance personnel improperly bent replacement tubing for the fuel oil pump suction line as a result of poor bending practices, which resulted in the tube's circumference being out-of-round. A Non-Cited Violation was issued. (03a) The inspectors concurred with the licensee's conclusions that the 1A chemical and volume control (CV) pump motor-to-gearbox coupling fasteners were over-torqued. This was due to a mechanical maintenance first-line supervisor improperly revising the torque value specified in the maintenance work instructions. In addition, mechanical maintenance personnel over-torqued the 1A CV pump gear-to-pump coupling fasteners due to an incorrect torque value being specified in the maintenance work instructions. A Non-Cited Violation was issued. (03b)
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						

United States Nuclear Regulatory Commission
PLANT ISSUE MATRIX

By Primary Functional Area

Region III

BYRON

Date	Source	Functional Area	ID	Type	Template Codes	Item Title / Item Description
03/29/1999	1999003-04	**Pri:** MAINT **Sec:**	NRC	NCV	**Pri:** 3A **Sec:** **Ter:**	**Failure to follow Byron Instrument Surveillance 3.3.12-201 resulted in an invalid high energy line break signa** The inspectors concluded that an invalid high energy line break isolation of the Unit 1 steam generator blowdown system occurred during temperature switch calibration as the result of multiple human errors and inadequate communications practices. A Non-Cited Violation was issued.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
02/16/1999	1999002	**Pri:** MAINT **Sec:**	NRC	NEG	**Pri:** 3B **Sec:** **Ter:**	**IMPROPER INSTALLATION OF MEASURING AND TEST EQUIPMENT DURING TESTING OF THE 1B EMERGENCY** The inspectors concurred with the licensee's conclusion that measuring and test equipment was installed at the wrong terminals during the performance of a Byron operating surveillance primarily due to an inadequate pre-job briefing and an improperly performed independent verification of the installation activity. This issue was considered of minor safety significance. However, the inspectors also concluded that the licensee's corrective actions for similar issues, which were documented in NRC Inspection Reports 50-454/98025(DRP); 50-455/98025(DRP) and 50-454/98020(DRP); 50-455/98020(DRP), have not been totally effective at preventing the recurrence of these types of errors.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
02/16/1999	1999002-01	**Pri:** MAINT **Sec:**	NRC	NCV	**Pri:** 2B **Sec:** **Ter:**	**FAILURE TO PROVIDE APPROPRIATE WORK INSTRUCTIONS FOR MAINTENANCE ON THE 1BDG** The inspectors concluded that the maintenance work instructions for the diesel generators lacked appropriate guidance for the assembly of some mechanical joints. A Non-Cited Violation was issued. The inspectors concurred with the licensee's conclusion that the 1B diesel generator failed to start during post-maintenance testing due to insufficient work instructions to prime the fuel oil system.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
02/16/1999	1999002-03	**Pri:** MAINT **Sec:**	NRC	NCV	**Pri:** **Sec:** **Ter:**	**FAILURE TO IMPLEMENT TS SURVEILLANCE REQUIREMENT 4.6.3.1** This was a failure to implement Technical Specification 4.6.3.1that required valves listed in table 3.6-1 be demonstrated operable prior to returning the valve to service after maintenance, repair, or replacement work is performed on the valve or its associated actuator, control or power circuit by performance of a cycling test, and verification of isolation time. The licensee failed to perform a post maintenance verification stroke testing of the valve to assure its operability. A noncited violation was issued. This resulted from LER 50-454/97004, "Reverse Functioning Conntrol Switch Due to Improper Actuator Installation and Failure to Recognize Reportability of the Issue."
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
01/18/2000	1999020-01	**Pri:** ENG **Sec:**	NRC	NCV	**Pri:** 4A **Sec:** 4C **Ter:**	**Inadequate test controls for a modification to the Unit 2 non-accessible area exhaust filter plenum ventilation** The licensee failed to incorporate appropriate post modification testing requirements from applicable design documents into work request instructions and to document completion of the post modification testing requirements when performing a temporary modification to the safety related non-accessible area exhaust filter plenum ventilation system. A Non-Cited Violation was issued.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
12/06/1999	1999019	**Pri:** ENG **Sec:**	NRC	NEG	**Pri:** 4A **Sec:** 4B **Ter:**	**Review of Unit 1 "D" Safety Injection (SI) System Accumulator Leakage** The inspectors identified two errors in the licensee's operability assessment on the potential effects of non-condensable gas accumulation in emergency core cooling system piping from leakage past Unit 1 "D" safety injection system accumulator check valve 1SI8818D. Although these errors did not result in an incorrect system operability determination, the inspectors concluded that the errors demonstrated a lack of understanding of the breadth of the degraded condition.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						

United States Nuclear Regulatory Commission
PLANT ISSUE MATRIX

By Primary Functional Area

Region III

BYRON

Date	Source	Functional Area	ID	Type	Template Codes	Item Title / Item Description
12/06/1999	1999019	**Pri:** ENG **Sec:**	NRC	NEG	**Pri:** 4B **Sec:** **Ter:**	**Review of Open Operability Assessments** The licensee failed to initially provide explicit justification for not correcting degraded and nonconforming conditions associated with each open operability assessment affecting Unit 2 during B2R08 as stated in the guidance of Generic Letter 91-18. Subsequent to the inspectors inquires, the justifications were performed and were appropriate and commensurate with safety.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
12/06/1999	1999019-03	**Pri:** ENG **Sec:**	NRC	NCV	**Pri:** 5C **Sec:** **Ter:**	**Failure to promptly correct a nonconforming condition at the first available opportunity without good cause.** The licensee failed to promptly correct the nonconformance at the first available opportunity without good cause following identification of the nonconforming condition. This nonconformance was that the as-built minimum restriction found in the emergency core cooling and containment spray systems was not as described in the Updated Final Safety Analysis Report. A Non-Cited Violation was issued.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
10/25/1999	1999013	**Pri:** ENG **Sec:**	NRC	NEG	**Pri:** 4C **Sec:** **Ter:**	**Engineering Procedures and Documentation - Review of Ultrasonic Flow Instruments Installed on the Unit 1 a** An existing electrical installation for ultrasonic flow instruments on both the Unit 1 and Unit 2 charging pump combined discharge headers lacked appropriate design control documentation and did not meet the licensee's current standards for a permanent electrical installation. No violation of regulatory requirements were identified since the installations were nonsafety-related. The inspectors identified a potential vulnerability with the licensee's practice of routing cables in air (without a cable tray or conduit) without well defined engineering standards in place to ensure that appropriate installation requirements were met.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
09/16/1999	1999012	**Pri:** ENG **Sec:**	NRC	NEG	**Pri:** 4B **Sec:** **Ter:**	**Untimely Implementation of Corrective Actions for a Failure of an Emergency Diesel Generator** The licensee did not complete one of the corrective actions for Licensee Event Report 50-454/98-018, "Inoperable Unit 1 Diesel Generator Due to Low Lube Oil Pressure Condition," in a timely manner due to insufficient engineering management oversight of the activity. The corrective action involved evaluating the use of one of two parallel lube oil strainers at a time to preclude the simultaneous clogging of both lube oil strainers and revising the procedures and drawings necessary to modify the system operation.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
09/16/1999	1999012	**Pri:** ENG **Sec:**	NRC	POS	**Pri:** 5B **Sec:** 5C **Ter:**	**Nuclear Oversight Stop Work Order on the Installation of Design Modifications** Nuclear Oversight's evaluation and response to the continuing deficiencies with the implementation of the engineering design modification process was appropriate and indicative of a self-critical oversight organization.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
08/02/1999	1999010	**Pri:** ENG **Sec:**	NRC	POS	**Pri:** 4A **Sec:** **Ter:**	**REVIEW OF SAFETY-RELATED 125V DC SYSTEM MAINTENANCE RULE PERFORMANCE** The licensee had clearly defined reliability and availability criteria for the safety-related 125 volt direct current system equipment as well as a reasonable definition of a functional failure.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						

United States Nuclear Regulatory Commission
PLANT ISSUE MATRIX

By Primary Functional Area

Region III

BYRON

Date	Source	Functional Area	ID	Type	Template Codes	Item Title / Item Description
08/02/1999	1999010	**Pri:** ENG **Sec:**	NRC	POS	**Pri:** 4A **Sec:** 4C **Ter:**	**REVIEW OF SELECTED INDUSTRY STANDARDS AND DESIGN BASIS DOCUMENTS.** The inspectors concluded that the actual load magnitudes and durations for the safety-related 125 volt (V) direct current system loads were within the design capacity of the batteries as demonstrated by the results of service and modified performance testing. The inspectors also concluded that the licensee met design basis assumptions for the safety-related 125V direct current system contained in the Updated Final Safety Analysis Report and met applicable industry standards for maintenance, testing, and sizing of the batteries committed to in the Updated Final Safety Analysis Report with one minor exception.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
08/02/1999	1999010	**Pri:** ENG **Sec:**	NRC	POS	**Pri:** 4B **Sec:** **Ter:**	**OPERABILITY ASSESSMENTS** The operability assessments reviewed adequately justified continued operability of the affected structures, systems, and components.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
08/02/1999	1999010	**Pri:** ENG **Sec:**	NRC	POS	**Pri:** 4C **Sec:** **Ter:**	**REVIEW OF SAFETY-RELATED 125V DC SYSTEM SURVEILLANCE TEST PROCEDURES** Surveillance test procedures reviewed for the safety-related 125 volt direct current system satisfied the requirements of the Technical Specifications.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
06/21/1999	1999008	**Pri:** ENG **Sec:**	Self	POS	**Pri:** 5B **Sec:** 5C **Ter:**	**WELD FAILURE ON UNIT 1 RCS LOOP BYPASS VENT VALVE ASSEMBLY FOLLOWING MODIFICATION.** The inspectors concluded that the licensee appropriately evaluated a weld failure where the 1B reactor coolant system (RCS) loop bypass vent valve (1RC8029B) assembly is attached to the RCS loop bypass line. In addition, the licensee implemented acceptable corrective actions to prevent recurrence of a similar vibration induced fatigue failure.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
06/21/1999	1999008-03	**Pri:** ENG **Sec:**	NRC	NCV	**Pri:** 4B **Sec:** **Ter:**	**FAILURE TO INCORPROATE POST-CONSTRUCTION TESTING REQUIREMENTS AND POST-MODIFICATION REQ** The inspectors concluded that the licensee failed to incorporate post-construction testing requirements from engineering design change packages into work request instructions and failed to complete the post-construction testing requirements after replacing the fuel oil filter and strainer assemblies on both Unit 1 diesel generators. One example of a Non-Cited Violation was issued. (03A) The inspectors concluded that the licensee failed to incorporate testing requirements from engineering design change packages into work request instructions and to accomplish the post-construction and post-modification testing requirements following modifications to the Unit 1 containment recirculation sump outlet isolation valves and the Unit 1 main steam isolation valves. Two additional examples of a Non-Cited Violation were issued. (03B&C)
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						

United States Nuclear Regulatory Commission
PLANT ISSUE MATRIX

By Primary Functional Area

Region III

BYRON

Date	Source	Functional Area	ID	Type	Template Codes	Item Title / Item Description
03/29/1999	1999003	**Pri:** ENG **Sec:**	NRC	POS	**Pri:** 4B **Sec:** 5A **Ter:**	**Temoporary Modifications** The inspectors concluded that the temporary modifications reviewed were generally well controlled and each temporary modification had an action plan for removal.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
03/29/1999	1999003	**Pri:** ENG **Sec:**	NRC	POS	**Pri:** 5A **Sec:** 5C **Ter:**	**Safety-Related Instrumentation Out-of-Tolerance Trending** The inspectors concluded that the licensee's process for implementing and administering the instrument out-of-tolerance (OOT) trending program adequately identifies, trends, and evaluates instrument OOT conditions. Additionally, the inspectors noted that assessments performed by the station's nuclear oversight department during the past 6 months provided constructive and timely recommendations which contributed to the development of the licensee's program.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
03/29/1999	1999003-05	**Pri:** ENG **Sec:**	NRC	NCV	**Pri:** 5B **Sec:** 5C **Ter:**	**Failure to include valves in the Inservice Test (IST) Program.** The inspectors identified that the licensee failed to include the auxiliary feedwater pump discharge valves, 1/2AF004A/B, within the scope of the inservice test (IST) program. Additionally, the inspectors concluded that other numerous examples of the failure to include passive valves within the IST program identified by the licensee represented a programmatic deficiency with the scoping of the IST program. A Non-Cited Violation was issued.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
02/16/1999	1999002	**Pri:** ENG **Sec:**	Licensee	NEG	**Pri:** 4B **Sec:** **Ter:**	**OPERABILITY ASSESSMENT 98-066** The inspectors concurred with the operating shift's operability determination that the Unit 2 containment floor drain sump level indication was inoperable and that the operability assessment provided by the engineering department was inadequate to justify operability.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
01/14/2000	2000004	**Pri:** PLTSUP **Sec:**	NRC	MISC	**Pri:** 1C **Sec:** 3B **Ter:**	**DEPARTMENT OF TRANSPORTATION HAZARDOUS MATERIAL WORKER TRAINING.** The training program provided effective hazardous material worker training to those individuals involved with the transportation of radioactive materials.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
01/14/2000	2000004	**Pri:** PLTSUP **Sec:**	NRC	MISC	**Pri:** 1C **Sec:** 5A **Ter:** 5C	**SOLID RADIOACTIVE WASTE AND TRANSPORTATION AUDITS.** The licensee conducted thorough audits of the radioactive waste and transportation programs that were technically sound and of sufficient scope and depth to identify deficiencies.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						

United States Nuclear Regulatory Commission
PLANT ISSUE MATRIX

By Primary Functional Area

Region III

BYRON

Date	Source	Functional Area	ID	Type	Template Codes	Item Title / Item Description
01/14/2000	2000004	**Pri:** PLTSUP **Sec:**	NRC	POS	**Pri:** 1C **Sec:** **Ter:**	**SOLID RADIOACTIVE WASTE MANAGEMENT.** The solid radwaste processing program was effective, well implemented and was as described in the Final Safety Analysis Report and the Process Control Program. The program was technically sound and implemented in accordance with station procedures and regulatory requirements. The radioactive waste staff was knowledgeable regarding regulations, station procedures and industry standards.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
01/14/2000	2000004	**Pri:** PLTSUP **Sec:**	NRC	POS	**Pri:** 1C **Sec:** **Ter:**	**RADIOACTIVE MATERIAL TRANSPORTATION PROGRAM.** The radioactive material transportation program was technically sound and implemented in accordance with regulatory requirements. Required shipping documentation was complete, accessible, and maintained in accordance with regulatory requirements.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
01/14/2000	2000004	**Pri:** PLTSUP **Sec:**	NRC	POS	**Pri:** 1C **Sec:** **Ter:**	**RADIOLOGICAL POSTING, LABELING, AND HOUSEKEEPING.** Radiological postings and container labeling were well maintained and appropriately informed workers of radiological conditions. Housekeeping and material condition of radiation protection equipment was good.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
01/14/2000	2000004	**Pri:** PLTSUP **Sec:**	NRC	POS	**Pri:** 1C **Sec:** **Ter:**	**SPENT FUEL ASSEMBLY TOP NOZZLE REPAIR ACTIVITIES.** The radiation protection staff provided effective planning, oversight and control of the spent fuel assembly top nozzle repair activities. Good communication and radiation worker practices were evident between the work group and radiation protection technicians.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
01/14/2000	2000004	**Pri:** PLTSUP **Sec:**	NRC	POS	**Pri:** 1C **Sec:** 3B **Ter:** 3A	**RADIOACTIVE WASTE PREPARATION AND TRANSPORTATION ACTIVITIES.** Station personnel demonstrated a thorough knowledge of station procedures, and regulatory requirements in that radioactive material packages were effectively prepared for shipment. Radiation protection technicians effectively performed radiological surveys of radioactive material shipments. Good communication was evident between personnel involved in radioactive material shipping activities.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
12/06/1999	1999019-04	**Pri:** PLTSUP **Sec:**	NRC	NCV	**Pri:** 1C **Sec:** 3B **Ter:**	**Failure to ensure appropriate respiratory protection qualifications for active licensed operators.** The inspectors concluded that the licensee's respiratory protection program was ineffective. Specifically, none of the active licensed operators were qualified to wear self-contained breathing apparatus; an insufficient number of emergency responders were qualified to wear respirators; and numerous individuals that were required to wear respirators and needed corrective lenses did not have respirator spectacle kits. In addition, the licensee missed opportunities to self-identify these deficiencies. A Non-Cited Violation was issued.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						

United States Nuclear Regulatory Commission
PLANT ISSUE MATRIX

By Primary Functional Area

Region III

BYRON

Date	Source	Functional Area	ID	Type	Template Codes	Item Title / Item Description
11/19/1999	1999018	**Pri:** PLTSUP **Sec:**	NRC	POS	**Pri:** 1C **Sec:** **Ter:**	**OPERATIONAL STATUS OF THE EMERGENCY PREPAREDNESS PROGRAM** This inspection showed the emergency preparedness program had been maintained in an effective state of operational readiness. In particular, emergency response facilities, equipment, and supplies were well-maintained. Management support for the program continued to be a program strength. Emergency response personnel were currently qualified for their positions, and interviewed members demonstrated good knowledge of their responsibilities and emergency procedures. Nuclear Oversight assessment of the program was also very good.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
10/29/1999	1999017	**Pri:** PLTSUP **Sec:**	NRC	POS	**Pri:** 1C **Sec:** **Ter:**	**REFUELING OUTAGE B2R08 - OCCUPATIONAL RADIATION EXPOSURE CONTROLS** The radiation protection staff effectively evaluated health physics requirements, radiological impediments, and personnel contamination events associated with the outage. Steam generator work planning, radiological controls, and ALARA practices were also effectively implemented. Radiological postings and container labeling appropriately informed workers of current plant radiological conditions. The contractor radiation protection technician and outage worker training programs were well implemented. Radiation protection self assessments were effectively implemented and of sufficient scope to identify deficiencies.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
10/25/1999	1999013	**Pri:** PLTSUP **Sec:**	NRC	WK	**Pri:** 1C **Sec:** **Ter:**	**Control of Inspections, Maintenance, and Testing of Self-Contained Breathing Apparatus (SCBA)** The inspectors concluded that the licensee's control of inspections, maintenance, and testing of self contained breathing apparatus was ineffective. Specifically, the licensee failed to perform several monthly inspections and annual flow tests. In addition, the licensee had not been performing some of the periodic maintenance recommended by the vendor.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
09/16/1999	1999012	**Pri:** PLTSUP **Sec:**	NRC	POS	**Pri:** 1C **Sec:** **Ter:**	**Radiological Protection Practices** The inspectors concluded that radiologically controlled areas were properly posted and controlled with one minor exception. The inspectors also concluded that improvements in the licensee's as-low-as-reasonably-achievable controls had resulted in notable reductions in the licensee's accumulated dose.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
09/10/1999	1999016	**Pri:** PLTSUP **Sec:**	NRC	POS	**Pri:** 1C **Sec:** **Ter:**	**WATER CHEMISTRY CONTROL PROGRAM** The water chemistry program was well implemented, resulting in effective control of plant water chemistry. Laboratory quality assurance was effectively implemented, ensuring that laboratory instrumentation operated within statistical control limits. Assessments of the chemistry program were of sufficient scope and depth to identifying program deficiencies. The chemistry technician continuing training program was well structured and presentations were effective. Chemistry personnel followed procedures during sample collection and exhibited good radiation worker practices. The control room engineered safety feature filtration system was well implemented. The September 9, 1999 radioactive waste shipment was properly packaged and shipping documents were properly completed.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
08/27/1999	1999014	**Pri:** PLTSUP **Sec:**	NRC	POS	**Pri:** 1C **Sec:** 3A **Ter:**	**SECURITY AND SAFEGUARDS STAFF KNOWLEDGE AND PERFORMANCE** Security force members were knowledgeable of post requirements and performed duties in a professional, effective and competent manner on a consistent basis.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						

United States Nuclear Regulatory Commission
PLANT ISSUE MATRIX

By Primary Functional Area

Region III

BYRON

Date	Source	Functional Area	ID	Type	Template Codes	Item Title / Item Description
08/27/1999	1999014	**Pri:** PLTSUP **Sec:**	NRC	POS	**Pri:** 1C **Sec:** 3B **Ter:**	**SECURITY AND SAFEGURDS STAFF TRAINING AND QUALIFICATION** Overall, the contractor security training staff ensured that security force members were adequately trained and qualified in accordance with Appendix B of the security plan. A review of security loggable events showed consistent, acceptable security force performance.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
08/26/1999	1999015	**Pri:** PLTSUP **Sec:**	NRC	POS	**Pri:** 1C **Sec:** **Ter:**	**EMERGENCY PLAN EXERCISE** Overall licensee performance during the 1999 Emergency Plan exercise was very good and performance in the Emergency Operations Facility was excellent. Performance in the Simulator Control Room was effective. The Technical Support Center staff's overall performance was excellent. Overall performance of Operational Support Center management and staff was good. Self-critiques following termination of the exercise were thorough and in close agreement with the majority of the inspectors' observations. Licensee critique findings were consistent with the NRC evaluation team's findings.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
05/20/1999	1999007	**Pri:** PLTSUP **Sec:**	NRC	POS	**Pri:** 1A **Sec:** 2A **Ter:**	**The material condition of most fire protection equipment appeared to be good.** Minimal amounts of combustible material were noted in the plant and the material condition of most fire protection equipment appeared to be good. The fire brigade turnout gear appeared to be well controlled.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
05/20/1999	1999007	**Pri:** PLTSUP **Sec:**	NRC	POS	**Pri:** 1C **Sec:** 4C **Ter:** 3B	**The fire protection procedures reviewed provided adequate fire protection controls** The inspector concluded that the fire protection procedures reviewed provided adequate fire protection controls and were adequately implemented by station personnel. The training for fire brigade members was acceptable. The requirements for drill participation and medical examination were met.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
05/20/1999	1999007	**Pri:** PLTSUP **Sec:**	NRC	POS	**Pri:** 1C **Sec:** 5A **Ter:**	**The fire protection self-assessment was thorough and comprehensive.** The licensee was pro-active in identifying problems with fire protection surveillance procedures. The self-assessment utilized lessons learned from other NRC conducted fire protection inspections at other sites. The licensee also used IPEEE data to select areas for plant walkdowns and used a recently published information notice to evaluate surveillance practices for testing deluge systems.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						

United States Nuclear Regulatory Commission
PLANT ISSUE MATRIX

By Primary Functional Area

Region III

BYRON

Date	Source	Functional Area	ID	Type	Template Codes	Item Title / Item Description
05/10/1999	1999004	**Pri:** PLTSUP **Sec:**	NRC	POS	**Pri:** 1C **Sec:** **Ter:**	**Radiological Protection Practices** The inspectors concluded that radiologically controlled areas were properly posted and radiation workers demonstrated proper work practices to control the spread of contamination. The inspectors concluded that As-Low-As-Reasonably-Achievable principles were effectively utilized to minimize dose during the Unit 1 refueling outage.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
04/23/1999	1999006	**Pri:** PLTSUP **Sec:**	NRC	POS	**Pri:** 1C **Sec:** **Ter:**	**B1R09 Refueling Outage Activities** Although the dose goal was exceeded, the licensee adequately evaluated planned work activities and integrated past performance to prepare dose estimates and goals for the Byron 1 Refueling Outage (B1R09). As-Low-As-Is-Reasonably-Achievable (ALARA) plans were detailed and included special instructions and lessons learned from previous job evolutions. The licensee effectively initiated steps to reduce the number of personnel contamination events during the outage
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
04/23/1999	1999006	**Pri:** PLTSUP **Sec:**	NRC	POS	**Pri:** 1C **Sec:** 1B **Ter:**	**Radiological Postings, Labeling and Housekeeping.** Radiological postings and container labeling were well maintained and appropriately informed workers of current station radiological conditions. Material condition of radiation protection equipment was good. Overall, housekeeping was good and there was a significant improvement in the timely processing of radioactive waste stored in the radioactive waste building.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
04/23/1999	1999006	**Pri:** PLTSUP **Sec:**	NRC	POS	**Pri:** 1C **Sec:** 2A **Ter:** 4C	**Effluent Release Program, Radiological Environmental Monitoring Program, and Calibration of Instrumentatic** The licensee's effluent release program was well implemented, and estimated public doses due to radioactive effluent releases were well below regulatory limits. The radiological environmental monitoring program was well implemented by contractor personnel who were knowledgeable of the sampling procedure. Material condition of the air sampling equipment was good. Environmental sample results did not indicate any discernable environmental effects from plant operations. Overall, the calibration and effective tracking of instrument operability ensured that liquid and gaseous process and effluent radiation monitors accurately measured radioactivity in station effluents. Meteorological tower instrumentation surveillances and calibrations were appropriately performed and contractor personnel were knowledgeable regarding the monitoring equipment and the calibration process. The meteorological monitoring equipment was maintained in good material condition.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
04/23/1999	1999006	**Pri:** PLTSUP **Sec:**	NRC	POS	**Pri:** 1C **Sec:** 5A **Ter:** 5C	**Radiological Protection Quality Assuarance Program Implementation** The master audit plan was detailed and ensured that critical areas of the radiation protection program were reviewed over a two-year period. Audits were of sufficient scope and depth to identify deficiencies and areas where improvements were warranted. Corrective actions to identified deficiencies were being effectively developed and implemented by the radiation protection staff.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						

United States Nuclear Regulatory Commission
PLANT ISSUE MATRIX

By Primary Functional Area

Region III

BYRON

Date	Source	Functional Area	ID	Type	Template Codes	Item Title / Item Description
04/23/1999	1999006	**Pri:** PLTSUP **Sec:**	NRC	WK	**Pri:** 1C **Sec:** 2A **Ter:**	**Process and Effluent Radiation Monitoring Enstrumentation.** One weakness was noted in the station's calibration methodology, which did not include verification of accurate instrument response to the types of radionuclides or the geometry present during release conditions.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
03/29/1999	1999003	**Pri:** PLTSUP **Sec:**	NRC	POS	**Pri:** 1C **Sec:** **Ter:**	**Radiological Protection Practices** The inspectors concluded that radiologically controlled areas were properly posted; locked high radiation area doors were locked and properly controlled by radiation protection personnel; radiation workers demonstrated proper work practices to control the spread of radioactivity; and As-Low-As-Reasonably-Achievable (ALARA) principles, such as briefings to minimize exposure to personnel were effectively utilized.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						
02/16/1999	1999002	**Pri:** PLTSUP **Sec:**	NRC	MV	**Pri:** 1C **Sec:** 3A **Ter:**	**AN INDIVIDUAL EXITING PROTECETED AREA FAILED TO PROPERLY PASS THROUGH A CONTAMINATION POI** The inspectors concluded that an individual failed to notify the radiation protection department upon receipt of an alarm on the gatehouse exit contamination portal monitor. The individual was subsequently surveyed by the radiation protection department personnel and determined to not be contaminated. This failure constituted a violation of minor significance and is not subject to formal enforcement action. The inspectors also concluded that the security guards in the gatehouse did not recognize the significance of the contamination alarm and did not ensure that the required actions were completed.
Dockets Discussed: 05000454 Byron 1 05000455 Byron 2						

United States Nuclear Regulatory Commission
PLANT ISSUE MATRIX
By Primary Functional Area

Legend

Type Codes:

BU	Bulletin
CDR	Construction
DEV	Deviation
EEI	Escalated Enforcement Item
IFI	Inspector follow-up item
LER	Licensee Event Report
LIC	Licensing Issue
MISC	Miscellaneous
MV	Minor Violation
NCV	NonCited Violation
NEG	Negative
NOED	Notice of Enforcement Discretion
NON	Notice of Non-Conformance
OTHR	Other
P21	Part 21
POS	Positive
SGI	Safeguard Event Report
STR	Strength
URI	Unresolved item
VIO	Violation
WK	Weakness

Template Codes:

1A	Normal Operations
1B	Operations During Transients
1C	Programs and Processes
2A	Equipment Condition
2B	Programs and Processes
3A	Work Performance
3B	KSA
3C	Work Environment
4A	Design
4B	Engineering Support
4C	Programs and Processes
5A	Identification
5B	Analysis
5C	Resolution

ID Codes:

NRC	NRC
Self	Self-Revealed
Licensee	Licensee

Functional Areas:

OPS	Operations
MAINT	Maintenance
ENG	Engineering
PLTSUP	Plant Support
OTHER	Other

EEIs are apparent violations of NRC Requirements that are being considered for escalated enforcement action in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Action" (Enforcement Policy), NUREG-1600. However, the NRC has not reached its final enforcement decision on the issues identified by the EEIs and the PIM entries may be modified when the final decisions are made.

URIs are unresolved items about which more information is required to determine whether the issue in question is an acceptable item, a deviation, a nonconformance, or a violation. A URI may also be a potential violation that is not likely to be considered for escalated enforcement action. However, the NRC has not reached its final conclusions on the issues, and the PIM entries may be modified when the final conclusions are made.