U. S. NUCLEAR REGULATORY COMMISSION

REGION III

REPORT NO. 50-454/95013; 50-455/95013

FACILITY
Byron Nuclear Plant, Units 1 & 2

License No. NPF-37; NPF-66

LICENSEE
Commonwealth Edison Company
Opus West III
1400 Opus Place
Downers Grove, IL 60515

DATES
December 28, 1995 through February 22, 1996

INSPECTORS
H. Peterson, Senior Resident Inspector
C. H. Brown, Resident Inspector
N. D. Hilton, Resident Inspector
G. Pirtle, Regional Security Specialist

APPROVED BY

Lewis F. Miller, Jr., Chief
Reactor Projects Branch 4

20 March, 1996
Date

AREAS INSPECTED

A routine, unannounced inspection of operations, engineering, maintenance, and plant support was performed. Safety assessment and quality verification activities were routinely evaluated. A review of the licensee's strike contingency plan was performed in preparation for a potential strike due to a licensee/union contract dispute. Also, a region based security specialist conducted a routine onsite security inspection.

RESULTS

Assessment of Performance

OPERATIONS: The licensee demonstrated professional control room operations. Operators demonstrated a strong questioning attitude in the control room. Some examples of good attention to details and questioning attitude were demonstrated by control room operators' identification of hydrogen monitor problems (see section 2.7). The licensee's initiatives to improve personnel performance appeared to be satisfactory (see section 1.2); however, some errors were noted during this inspection period. These errors were associated with configuration control, a non-cited violation was identified (see section 1.3.2). Additionally, the inspectors identified procedure deficiencies. The inadequacies associated with the boric acid transfer system procedure were identified as a violation (see section 1.4).

MAINTENANCE: During this inspection period, the inspectors determined the performance in maintenance was mixed. Routine surveillance and minor maintenance were satisfactorily coordinated and performed; however, the inspectors noted some poor maintenance activities. One maintenance activity of concern was the unresolved item identified in a previous inspection report 95011 associated with the auxiliary feedwater valve, 1AF013G. During this inspection period this unresolved item was closed out with the identification of two non-cited violations by the inspectors (see sections 2.2.1 and 2.2.2). The inspectors were concerned with the lack of attention to detail resulting in personnel errors during the main feedwater pump maintenance and the carbon dioxide surveillance activity. Also, two surveillance activities noted during this inspection resulted in an inadequate procedure violation for the emergency diesel generator fuel oil transfer procedure (see section 2.6) and an U. S. Department of Labor Occupational Safety and Health Administration (OSHA) violation on the use of a hazardous chemical (see section 2.5). Additionally, the inspectors were concerned with maintenance personnel altering a surveillance document. An unresolved item was opened pending further NRC review (see section 2.1).

ENGINEERING: During this inspection period, the licensee's engineering organization continued to perform well in supporting other departments. In particular, their cooperation with maintenance, and their evaluation of the levering-in device and motor cutout switch circuit breaker problems (see section 2.4) were excellent. Also, the inspectors reviewed the licensee's 10 CFR 50.59 safety evaluations program and the technical problems associated with the new fuel shipments for the Spring 1996 Unit 1 refueling outage. In both cases, the inspectors determined the licensee's response was satisfactory.

PLANT SUPPORT: During this inspection period, the licensee's radiological controls program continued to perform well. The 1995 collective dose was considered low; however, the 3 year rolling average placed the licensee in the lower half of the 2nd quartile of the INPO collective radiation exposure guideline. The drop in the 3 year rolling average assessment was attributed to the increased dose received during the mid-cycle steam generator inspection outage. A detailed security inspection was also performed. Two inspection

followup items were identified concerning security gas mask control and security plan discrepancies (see sections 4.2.1 and 4.2.2). The inspectors concluded that the licensee's security organization continued to perform well.

SUMMARY OF OPEN ITEMS
Violations: identified in Sections 1.4 and 2.6
Unresolved Items: identified in Sections 1.3.1, 1.3.2, and 2.1.1
Inspection Followup Items: identified in Section 2.4, 3.3.1, 4.2.1, and 4.2.2
Non-cited Violations: identified in Section 2.2.1, and 2.2.2

SUMMARY OF CLOSED ITEMS
Violations: none
Unresolved Items: identified in Section 2.9.1
Inspection Followup Items: identified in Sections 1.6.1, 2.9.2, 3.3.1, 4.3.1
Licensee Event Report (LER): identified in Section 2.8.1

INSPECTION DETAILS

1.0 OPERATIONS

NRC Inspection Procedure 71707 was used in the performance of an inspection of ongoing plant operations. During this inspection period, the inspectors reviewed the licensee's initiatives to improve personnel performance. The licensee had significantly reduced the number of personnel errors over the last several months; however, several personnel errors have occurred during this inspection period. These errors were associated with configuration control. Specific examples included tagout control and valve lineup errors (see section 1.3). Additionally, a violation associated with an inadequate procedure was identified by the inspectors (see section 1.4).

1.1 Performance of Operations at Power

Both units operated at or near full power and plant operations were well-managed during this report period. Control room operators demonstrated professionalism and attention to the control room panels. Some examples of good attention to details and questioning attitude were demonstrated by control room operators' identification of hydrogen monitor problems (see section 2.7). Continued emphasis on three-way communications, safety focus and intra-departmental teamwork was observed by the inspectors. Control room shift briefings and shift turnovers continued to be thorough with good participation by the unit licensed operators and in-plant non-licensed operators.

1.2 Personnel Performance Improvement Initiatives

During the past 6 months, the operations department evaluated and trended plant events and personnel errors to correct and improve personnel performance. Based on these evaluations, the licensee implemented several performance improvement initiatives including peer checks, additional benchmarking trips to other facilities, and introduced the "Event Free Byron Buck." The Byron Buck was a human performance initiative to recognize and reward good work. When an operator demonstrated positive attributes (e.g. good communication practices), the licensee's shift management would give the operator a Byron Buck. The Byron Buck was redeemed for cash. The peer check was an effort to encourage operators to question and second check each other's activities if dual verification was not required. The licensee also enhanced its control room shift briefings. The briefings were expanded from one brief to three unit specific briefings (Unit 1, Unit 2, and common Unit 0) plus an overall control room brief. This enhancement improved communications between the unit operators and the non-licensed operators. The unit reactor operators participated more during these unit specific briefs, which promoted better information exchange.

The operations department also developed a list of performance improvement initiatives for 1996. The Byron Operations Improvement List (BOIL) included activities to improve areas of human performance, maintenance strategy, process improvement, and material condition. Some of these initiatives included implementation of probabilistic risk assessment for normal operations and shadowing by operations management personnel of in-plant operators during plant tours. The inspectors determined that these initiatives appeared to capture the important issues concerning operating personnel performance; however, it was too early to assess their effectiveness.

1.3 Personnel Errors

The licensee had significantly reduced the number of personnel errors over the last several months; however, several personnel errors have occurred during this inspection period. These errors were associated with configuration control. Specific examples included tagout control and valve lineup errors.

1.3.1 Main Feedwater Pump (MFP) 2B Manual Recirculation Valve Found Out of Required Out of Service Position

On February 8, 1996, during the restoration of the 2B MFP, the licensee discovered the manual recirculation valve (2FW027B) was open with an Out of Service (OOS) tag indicating the valve was required to be shut. Initial investigation by the licensee revealed two operators had independently verified the valve was shut (the operator who shut the valve and the operator who hung the OOS tag requiring the valve to be shut). The licensee investigation was not complete at the end of the inspection period. This issue is an unresolved item pending review of the licensee's investigation. (50-454/455-95013-01(DRP))

1.3.2 Inadvertent Transfer of Water From Unit 2 Reactor Water Storage Tank (RWST) to the Spent Fuel Pool (SFP)

On February 19, 1996, the licensee inadvertently transferred approximately 1000 gallons of water from the Unit 2 RWST to the SFP. This error resulted in a level increase of 1 inch in the SFP. The water level of the RWST remained above the technical specification minimum level requirement. During a valve lineup for purification of the RWST, operators reviewed the procedure, BOP FC-7, "Startup of the Purification System to Purify the Refueling Water Storage Tank," then copied the valves requiring verification or positioning onto a personal notepad. The operators failed to copy one valve, 2FC8765, "Spent Fuel Pool Filter Demin Loop Return to Spent Fuel Pool." Each operator believed the other had closed the valve. The failure to reposition the valve created the flowpath for the water transfer from the RWST to the SFP. The licensee administrative procedure for procedure use in the field allows operators to review a procedure prior to operating equipment and then perform the evolution without the procedure in the field. The licensee was enhancing the RWST purification procedure by adding a valve lineup check sheet. The licensee was also reviewing additional corrective actions

concerning valve lineup performance practices. This item was identified as an unresolved item pending further NRC review of the licensee's corrective actions. (50-454/455-95013-02(DRP))

1.4 Unit 0 Boric Acid Transfer (BAT) Pump Found Electrically Isolated

On January 30, 1996, the licensee discovered the Unit 0 BAT pump was inoperable. The Unit 0 BAT pump was supposed to be lined up to supply boric acid to Unit 1. The licensee identified that the knife switch (electrical connection) for the Unit 0 BAT pump was not closed. Investigation by the licensee identified an operator who admitted performing a restoration lineup for the BAT system following a maintenance period. The operator failed to electrically connect the Unit 0 BAT pump. The as found condition indicated boric acid for Unit 2 was supplied through the Unit 2 BAT pump and Unit 1 was not supplied by either the Unit 1 or the Unit 0 BAT pumps. After reviewing the licensee's procedures for the boric acid system listed in BOP AB-0, "Boric Acid System Index," the inspectors identified that the licensee did not have any procedure for the restoration of the boric acid system operation to include the knife switch operation. Additionally, the inspectors identified that the licensee did not have any procedure to align the Unit 0 BAT pump to supply boric acid to either the Unit 1 or the Unit 2 boric acid injection system.

The licensee investigation concentrated on personnel error for failure to shut the knife switch. Although the initial evaluation questioned the existence of a procedure, no further action was taken. The inspectors identified the procedure deficiency to licensee management for additional review.

Self-assessment by the licensee had identified the possibility of concerns identified during the evaluation process not always being fully addressed in the final documentation. The inspectors had not identified any deficiencies of this nature prior to the failure to follow through with the procedure deficiency for the BAT pump electrical lineup. At the end of the inspection period, the licensee was evaluating a potential enhancement to the problem identification procedure, BAP 1250-2, "Integrated Reporting Program," including a check list to ensure that all identified concerns were addressed.

Review of the Updated Final Safety Analysis Report (UFSAR) by the inspectors indicated the boric acid transfer system was important to safety. The technical specifications only required two of three boric acid injection paths to be operable. Inoperability of a single component did not impair the ability to meet the boron injection technical specification requirements. At the end of the inspection period, the licensee was developing new boric acid system electrical and valve lineup procedures. The failure to properly align the boric acid transfer system, due to procedural inadequacy, was an example of a violation of 10 CFR 50, Appendix B, Criteria V, "Instructions, Procedures, and Drawings." (50-454/455-95013-03(a)(DRP))

1.5 Institute of Nuclear Power Operations (INPO) Accreditation Review

During January 23-27, 1995, INPO conducted a non-licensed operator training evaluation. The final evaluation report was issued April 27, 1995, and was reviewed by the inspectors. The National Nuclear Accrediting Board renewed the following training programs for Byron Station: instrument and control technician, electrical maintenance personnel, mechanical maintenance personnel and supervisor, chemistry technician, radiological protection technician, and engineering support personnel. The inspectors determined that the INPO evaluation report identified no significant concerns regarding the non-license training programs.

1.6 Followup on Previously Opened Items A review of previously opened items (violations, unresolved items, and inspection followup items) was performed per NRC Inspection Procedure 92901.

1.6.1 (Closed) Inspection Followup Item 50-454/455-93010-02 (DRP): An inspection followup item was opened to investigate an inadvertent closing of a circulating water (CW) makeup isolation valve (OCW-220). The CW makeup pumps were running when OCW-220 closed. The reactor operator noticed that the makeup flow had decreased and immediately reopened OCW-220. The cooling tower flume level decreased slightly, but the normal makeup flow was restored within 5 minutes. There was no affect on the circulating water supply to the plant. The licensee considered both personnel error and equipment problems; however, the licensee's root cause investigation of the valve closure was inconclusive. Although there was no safety significance associated with the valve closure, the operations department continued to monitor the system for recurrence. No recurrence of the valve closure was noted since the initial event in 1993. The inspectors concluded this was an isolated event, and had minimal safety significance. Due to no further recurrence of the valve closure, this item was closed.

2.0 MAINTENANCE

NRC Inspection Procedures 62703 and 61726 were used to perform an inspection of maintenance and surveillance activities. During this inspection period, the inspectors determined the performance in maintenance was mixed. Although routine surveillance and minor maintenance were satisfactorily performed, the inspectors considered the maintenance activity associated with 1AF013G was poor. The inspectors were concerned with the lack of attention to detail resulting in personnel errors during the main feedwater pump maintenance and carbon dioxide surveillance activities. Also, two cases involving surveillance activities resulting in an inadequate procedure violation (emergency diesel generator fuel oil transfer procedure, section 2.6) and an OSHA violation on the use of a hazardous chemical were noted by the inspectors during this inspection. Additionally, the inspectors identified an unresolved item concerning maintenance personnel altering a surveillance document (see section 2.1).

2.1 Maintenance Worker Altering Technical Specification Surveillance Document

On January 25, 1996, two instrument control system technicians (CST) were assigned to perform a quarterly channel check on the Unit 1 containment purge effluent process radiation monitor, 1PR01J. The procedure was completed and signed off; however, the conversion factor for the radiation monitor was not returned to its original value. The incorrect setting caused an inadvertent high level radiation alarm during a Unit 1 containment venting evolution on January 26. An actual high radiation condition did not exist.

The licensee performed an investigation and determined that the lead CST who performed the surveillance procedure and the second CST who verified the conversion factor had failed to identify the error in the conversion factor left in the data base of 1PR01J. Subsequently, the lead CST and the second CST proceeded to alter the data on the previously performed surveillance procedure. After further review, the licensee determined that the completed surveillance procedure was subsequently altered in the attempt to place the blame on a potential procedural calculation error instead of an actual performance error.

The licensee interviewed the two CSTs. The lead CST admitted that he had changed the number because he was afraid that his error in performing the surveillance would potentially lead to severe disciplinary actions against his assistant (the second CST), who apparently had a poor work history. The second CST acknowledged that he was present at the time the document was altered. The licensee stressed that it was not an acceptable practice to alter documents or have knowledge of an event of this nature and fail to notify the appropriate people, and took disciplinary actions.

2.1.1 Safety Significance

The 1PR01J monitor samples the containment atmosphere during the routine venting process to prevent a high radioactive containment release. The error inserted into the monitor was conservative. The high radiation setpoint was set lower than the design value. During the routine Unit 1 containment venting evolution, the high radiation alarm initiated and secured the venting process, without an actual high radiation condition. At the end of this inspection period, the licensee was still investigating this incident. The licensee informed the inspectors that the expected completion date for this work was March 10, 1996. The inspectors concluded that the safety significance of this occurrence was minor. However, the apparent alteration of documents to falsify information was a significant concern. This event is an unresolved item pending completion of the licensee's root cause investigation and further NRC review. (50-454/455-95013-04(DRP))

2.2 Auxiliary Feed Water Pump 1B Discharge Header Isolation Valve to 1C Steam Generator (1AF013G) Maintenance

During the previous inspection report 95011, the inspectors identified an unresolved item associated with the licensee's scheduled maintenance on motor operated valve (MOV) 1AF013G. Unit 1 was shutdown for a mid-cycle outage. On November 16, 1995, subsequent to valve reassembly and MOV testing, several problems were identified by the licensee, including mechanical damage to the back-seat area of 1AF013G. The following paragraphs details the inspectors concerns associated with configuration control, stem lubrication, and problem identification documentation.

2.2.1 Configuration (Parts) Control

The inspectors performed a review of the licensee's investigation of the failure of valve 1AF013G. This review addressed the unresolved item identified by the inspectors in inspection report 95011. The licensee identified that the replacement stem for 1AF013G was not identical to the original stem in 1AF013G. Byron station received a valve assembly from Braidwood station to use as a replacement. The valve received had sections of untraceable pipe welded to the body from a prior installation. The pipe sections and weld material were previously identified on a discrepancy report at Braidwood. Materials Management engineers were requested to resolve the weld material and pipe sections. Resolution from Materials Management was to disassemble the valve and use the internals for the repair of 1AF013G. The stem removed from the valve received from Braidwood was not identical to the stem being replaced in 1AF013G. The backseat of the replacement stem was approximately 3/8 inch further up the stem than the backseat on the original stem.

The technical evaluation to disposition the untraceable pipe sections on the valve body was incorrect. A Quality Assurance (QA) tag on the valve referenced a Sargent and Lundy (S&L) letter, dated April 7, 1989, "Marble Hill Spare Parts Evaluation," to be reviewed prior to installation for use limitations and interchangeability. A second S&L letter, dated January 5, 1990, "Marble Hill Spare Parts Evaluation," existed which further discussed interchangeability. Contrary to the information on the QA tag, the S&L letters were not examined by Materials Management during the technical evaluation. The second letter specifically mentioned the valve was interchangeable as an assembly. The S&L letters did not specifically address the internal components of the replacement valve as being identical to the installed components. The inspectors concluded that if the Materials Management engineer had reviewed the S&L letters, further evaluation would have identified the discrepancy between valve stems.

The mechanical maintenance mechanic installing the stem identified the discrepancy in the backseat configuration between the old and new stem. The discrepancy was noted to the foreman but a decision was made that the new stem was acceptable based on the QA tag contained with the work package. Maintenance personnel did not report the discrepancy.

During post maintenance testing (VOTES testing), the licensee identified a shorter stroke than previous testing indicated for 1AF013G. Further investigation revealed the new backseat had been damaged during operation of the valve. Additionally, the backseat seating area on the new bonnet was identified as smaller than nominal. The smaller seating surface, contributing to the damage of the backseat. The licensee then successfully rebuilt 1AF013G using the original bonnet and a different stem.

The licensee identified weaknesses in this repair associated with controlling replacement parts and the lack of a questioning attitude, and took appropriate corrective actions. The corrective actions included counseling of the individuals involved in this event, maintenance critique with all maintenance staff, management action to enhance problem identification and documentation by maintenance personnel, and increased review of all parts received from the same vendor. The inspectors concluded that the installation of the incorrect valve stem was an isolated occurrence and the licensee's corrective actions were satisfactory. However, the failure of the receipt inspection and material control program to allow a wrong part to be installed in a safety related equipment was identified as a violation of 10 CFR 50, Appendix B, Criterion VIII. This licensee identified and corrected violation is being treated as a Non-Cited Violation, consistent with Section VII.B.1 of the NRC Enforcement Policy. (50-454/455-95013-05(DRP))

2.2.2 Stem Lubrication

During the final rebuild of 1AF013G, the mechanic applied the wrong grease (never-seize) to the 1AF013G valve stem thread area. The mechanic recognized the mistake and attempted to clean the stem. After cleaning, the mechanic applied the correct grease (EP-1) as required per Byron Mechanical Procedure (BMP) 3100-5, "Limitorque Operator SMB/SMC Removal and Installation." However, during a test stroke of the valve, two types of grease was again identified on the valve stem. The licensee cleaned the stem and regreased the stem thread area with the proper grease. This failure to follow BMP 3100-5 requirements constituted a violation of minor significance and was being treated as a Non-Cited Violation, consistent with Section IV of the NRC Enforcement Policy. (50-454/455-95013-06(DRP))

2.2.3 Problem Reporting

During the maintenance on 1AF013G two events occurred where a Problem Identification Form (PIF) should have been used to document a problem. The first was identification by Mechanical Maintenance of dissimilar valve stems. The second event was the application of incorrect grease to the valve stem. Station procedure BAP 1250-2, "Integrated Reporting Program," indicated that the problems should have been documented at the time of discovery. Instead, in both cases, the PIFs were written at a

later time after the valve, 1AF013G, was found damaged. The inspectors were concerned that the maintenance department was not documenting identified problems in a timely manner.

2.2.4 Site Quality Verification (SQV)

After the licensee found that the valve 1AF013G was damaged, the licensee's SQV organization observed the rebuild of 1AF013G. Based on their concern that the work groups did not fully understand the ongoing activities, SQV issued a Stop Work Order on the rebuild of 1AF013G. The licensee's subsequent corrective actions concerning the problems associated with 1AF013G was considered adequate by the licensee's SQV organization. The Stop Work Order was an example of the licensee's critical self-assessment. The inspectors concluded that SQV's performance concerning the oversite on the rebuild of 1AF013G was very good.

2.3 Personnel Errors

The licensee significantly reduced the number of personnel errors over the last several months; however, some maintenance related personnel errors have occurred during this inspection period. These errors indicated a lack of attention to detail.

2.3.1 Main Feedwater Pump (MFP) 2B Manual Trip Linkage Found Disconnected After Return to Service

On February 15, 1996, the licensee identified the 2B MFP manual trip plunger was not connected. There were two other methods of tripping the pump locally and operation from the main control room was not affected. The pump had just completed two maintenance periods, one for reinstallation of a lube oil pump and the other to repair a control fluid leak. The licensee's investigation identified the trip linkage had been disconnected during the maintenance periods and had not been reconnected. The inspectors considered this item to be a maintenance related personnel error.

2.3.2 Carbon Dioxide (CO_2) Leak Caused by Missing Gasket

On January 11, 1996, a CO_2 leak occurred during a manual actuation surveillance for the Unit 2 Upper Cable Spreading Room fire protection system. The surveillance procedure 2BOS CO-R1, "Upper Cable Spreading Room Zone 48, 49, 50, and 51 CO_2 System Manual Actuation 18 Month Surveillance," required the removal of the wintergreen (odorizer) canister and the installation of a temporary valve to vent the system header after the CO_2 fire protection system surveillance was completed. A maintenance worker failed to install a gasket during the valve installation, which resulted in a leak when the header was pressurized with CO_2. Personnel in the lower levels of the Turbine Building were evacuated for a brief period as a precautionary action. Radiological Protection personnel obtained air samples. The leak was relatively small and no CO_2 limits were exceeded. Subsequently, the inspectors

verified the procedure was revised to include gasket installation. The inspectors concluded the failure to install the gasket was a maintenance related personnel error.

2.4 Breaker Failures

During the previous inspection report (IR 95011), the inspectors noted a greater than expected number of damaged and failed breaker components. The inspectors determined some of the deficiencies encountered were due to mechanical (component) failures associated with racking breakers into and out of a cubicle. The inspectors were concerned that other causes for these deficiencies existed, including age of components. The inspectors were concerned about the adequacy of preventive maintenance associated with auxiliary power circuit breakers. At the conclusion of this inspection period, the licensee was continuing to assess the increased incidents of breaker problems and was evaluating possible solutions (increased or enhanced preventive maintenance) to ensure better breaker reliability. The inspectors will review this issue in subsequent inspections and will be tracked as an inspection followup item. (50-454/455-95013-07(DRP))

2.4.1 Failure of Unit Auxiliary Transformer (UAT) Feed for Bus 143 to Shut

On December 24, 1995, during the startup of Unit 1 after a mid-cycle outage, the UAT feeder breaker to Bus 143 (ACB 1431, non-safety related) failed to shut on demand from the main control room. Electrical Maintenance had performed a five year inspection on the breaker during the Fall 1995 mid-cycle outage and on December 20, 1995, an operator racked the breaker into the breaker cubicle. The operator was aware of the breaker problems experienced at Braidwood recently and took extra precaution to ensure the breaker was fully racked-in. The operator did not notice any problems during the rack in operation.

After ACB 1431 failed to operate, troubleshooting by Electrical Maintenance identified a thrust washer in the levering-in device was missing. The levering-in device was a screw type device used to pull the breaker into position on the bus. With the thrust washer missing, the force of moving the breaker was applied to a thin metal plate. The thin metal plate was destroyed by the force of racking the breaker in and out of the cubicle. The licensee's troubleshooting included several cycles of racking-in the breaker which finally destroyed the metal plate. When the metal plate was destroyed, the levering-in device bound and prevented additional movement.

The breaker was a Westinghouse Model 50DHP350 3000 Ampere breaker. The 3000 ampere model was a larger breaker physically than the majority of the breakers in the plant. Only eight breakers with this larger frame size existed. Only the 3000 ampere breakers have the thrust washers included in the design of the levering-in device. The vendor manual did not contain a reference to or a drawing of the thrust washer.

The licensee's investigation was inconclusive as to why the thrust washer was not installed. A determination could not be made for when the washer was removed. Either the thrust washer was not installed during initial installation or during a subsequent breaker surveillance. The inspectors noted the maintenance period five years ago was the first inspection to include a careful examination of the levering-in device for hardened grease. This inspection required additional disassembly, probably involving removal of the thrust washer. The inspectors concluded that the maintenance inspection five years ago was the most likely time of washer removal.

The inspectors concluded the thrust washer removal to be an isolated maintenance related occurrence. All other 3000 ampere breakers were inspected by the licensee and found to contain the required thrust washer. Additionally, two inspectors from the Office of Nuclear Reactor Regulation reviewed the thrust washer issue onsite in conjunction with a review of other levering-in device issues.

2.4.2 2A Containment Spray (CS) Pump Breaker Failure to Shut

On December 14, 1995, an attempt was made to start the 2A CS pump for post maintenance testing, but the pump breaker did not close. The troubleshooting of the breaker showed that the closing spring charging motor cutoff switch was intermittently failing to make contact to make up the breaker closing circuit that prevented the breaker from closing. The licensee has determined that the closing spring charging motor cutoff switch failure was the root cause of the breaker failing to close. The breaker was satisfactorily tested after the cutoff switch was replaced. The inspectors concluded that the licensee's troubleshooting and repair activity of the breaker closing problem was very good.

2.4.3 Failure of a Reactor Trip Bypass Breaker to Shut During Surveillance

On February 22, 1996, during the functional check of the Unit 2 train B reactor trip bypass breaker, the breaker failed to close while in the test position. The functional check of the bypass breaker was performed as a pre-surveillance verification. The licensee entered the technical specification limiting condition for operation (LCO) associated with the trip bypass breaker. The LCO required that the bypass breaker be restored to operable status prior to using the bypass breaker to bypass a reactor trip breaker. Safety significance of this event was minimal. The bypass breaker problem was identified before using the breaker to bypass a reactor trip breaker. The licensee immediately initiated repairs and a spare bypass breaker was installed to continue and satisfactorily complete the reactor trip breaker surveillance. The licensee's troubleshooting identified the closing spring charging motor cutout switch as the failed component. The cutout switch failed to makeup the breaker closing circuit. The inspectors concluded that the licensee's troubleshooting and repair efforts were thorough and timely. However, this was another example of a charging motor cutout switch failure.

2.5 Occupational Safety and Health Administration Violation on the Use of Dioctyl Phthalate (DOP)

On January 23, 1996, the licensee received a violation from the U. S. Department of Labor Occupational Safety and Health Administration (OSHA). The violation was issued after a complaint was submitted to OSHA following the licensee's performance of a technical specification surveillance on the control room ventilation system. On December 8, 1995, the licensee performed the Control Room Ventilation Makeup System High Efficiency Particulate Air (HEPA) Filter Performance Test. This surveillance uses a chemical, Dioctyl Phthalate (DOP), to test the efficiency of the HEPA filters. The use of the chemical DOP was required by technical specifications. The surveillance testing was satisfactorily completed; however, the operators noticed an odor in the control room during the performance of the test. The complaint was submitted due to new information that was received by the licensee that DOP was potentially carcinogenic. Subsequently, OSHA issued a notice of violation concerning an alleged failure by the licensee to notify control room personnel that they were subjected to a potential hazardous chemical, and not informing those personnel of the hazards associated with that chemical.

On February 5, 1996, a conference was held between the licensee and OSHA to address the concerns of the violation. During this meeting, OSHA and the licensee reached an Informal Settlement Agreement (ISA). The terms of this ISA resulted in OSHA withdrawing the violation, and the licensee agreed to address employee concerns with regard to HEPA filter testing procedures. The employee concerns included better communication regarding the DOP testing, and the licensee was to investigate the use of a substitute chemical or different methods of conducting the test. The licensee revised the testing procedure to require placement of area warning signs, to conduct a pre-test briefing, and to lower the amount of chemical used during the test. At the end of this inspection period, the licensee's system engineering group had determined that no suitable substitute chemical was available due to constraints on particulate size. The licensee's Safety Coordinator verified that the training program for chemical safety included the lessons learned from this event. Also, the licensee determined that the operators were never in danger of being exposed to chemicals that would interfere with their ability to safely operate the plant. The inspectors concluded that there was no safety significance associated with the performance of the HEPA filter testing. The test was satisfactorily completed and in full compliance with the technical specification.

2.6 Emergency Diesel Generator Fuel Oil Transfer System Check Valve Testing Procedure Inadequacy

The inspectors reviewed the surveillance requirements for the emergency diesel generator fuel oil transfer system. The fuel oil transfer system was designed with two pumps in parallel with discharge check valves. The inspectors identified an inadequacy pertaining to check valve testing of the standby pump. Byron surveillance procedure BVS 0.5-

3.DO.1, "ASME Requirement for Test of the Diesel Oil Transfer System," and the American Society of Mechanical Engineers (ASME) code, section XI, subsection IWV-3522, "Inservice Testing of Valves in Nuclear Power Plants," required the standby pump discharge check valve to be tested to ensure the check valve prevented backflow of fuel oil through the idle pump. The acceptance criteria required running the opposite pump on the same train to verify check valve operability for the standby pump. If the check valve did not seat, backflow through the idle pump would prevent the running transfer pump from supplying fuel oil to the emergency diesel generator fuel oil day tank. The surveillance required the operator to place the handswitch for the fuel oil transfer pump being tested in auto. Several steps later, the operator was required to check the standby pump for reverse rotation. This sequence of steps verified the standby pump check valve had seated and was operable. The inspectors reviewed pump capacity, emergency diesel generator day tank capacity, and pump control circuit logic and determined that when the pump handswitch was placed in auto the operating pump would stop. In accordance with the steps in the procedure, the operator verified no reverse rotation of the standby pump without the opposite pump operating. The sequence of steps in the surveillance procedure that verified check valve operation without the opposite pump running was contrary to the acceptance criteria. The inspectors concluded the procedure steps were not correctly sequenced to adequately test the check valve in accordance with the stated acceptance criteria. Further investigation by the inspectors identified the licensee was apparently performing the test adequately, per the ASME requirements, notwithstanding the incorrect procedural steps. Although not stated in the procedure, the residual oil pressure in the fuel oil transfer system, after the operating pump was secured, appeared to be adequate to verify basic check valve seating. Also, the licensee stated that check valve backflow verification was performed with the opposite pump operating, but out of sequence from the steps in the procedure. However, the inspectors concluded that the procedure, as written, was inadequate to test the check valve in accordance with the procedure's acceptance criteria. This was an example of a violation of 10 CFR 50 Appendix B, Criterion V, "Instructions, Procedures, and Drawings." (50-454/455-95013-03(b)(DRP))

2.7 Hydrogen Monitor Problems Identified During Surveillance

On January 24, 1996, during the hydrogen monitor shiftly-daily surveillance, the operator noted that the low range "on" light was not lit for the Unit 2 Train B Hydrogen Monitor. An investigation was made that included a review of the history for the train B monitor. The point history showed that for the past two days the monitor looked as if a one to two minute loss of power occurred each time the surveillance was performed. The cause of the power loss was traced to the temperature control system of the analyzer. The temperature of the analyzer was set to be controlled at nominal 170° F and if the temperature decreased to less than 155° F the monitor deenergized. The root cause of the monitor deenergizing was a malfunction of a thermostat that controls a heater. The malfunction resulted in the heater cycling

between 190° F and some value less than 155° F. Therefore, the monitor was off for approximately one minute when the analyzer cooled to less than 155° F; then the heater was energized and the analyzer temperature increased above 155° F. The faulty thermostat was replaced and the monitor returned to service. The inspectors considered the licensee's response to the event was good. The operator noting the light being out for a short period of time was an indication of attentive watchstanding.

On February 14, 1996, three hydrogen monitor low flow trouble alarms were received for the Unit 2 Train A Hydrogen Monitor at 17 minute intervals during performance of the routine shiftly-daily surveillance. The appropriate technical specification limiting condition for operation was entered, and troubleshooting was initiated. The A train was monitored for the low flow trouble alarms with the direction to leave the monitor energized and monitor the local alarm panel to identify the cause. The licensee identified a faulty flow switch. The flow switch provides the low flow alarm. The switch was replaced and the hydrogen monitor was returned to service. The inspectors determined that the licensee's actions in returning the Unit 2 Train A Hydrogen Monitor to service were timely and appropriate.

2.8 Followup on Non-Routine Events NRC Inspection Procedures 90712 and 92700 were used to perform a review of written reports of non-routine events. For items which were "Closed" on the basis of this inspection, the Inspection Procedures were satisfied regarding verification of appropriate licensee corrective and preventive actions. The following licensee event report (LER) was reviewed.

2.8.1 (Closed) LER 455/93001-LL): Wiring Error in the Solid State Protection Systems (SSPS) Test Circuit. On February 22, 1993 a wiring discrepancy in the Unit 1 SSPS was discovered during testing and troubleshooting of a SSPS switch replacement. Investigation of the Unit 2 SSPS revealed the same wiring discrepancy in train A, but train B had the correct wiring. The affected wiring and switches on the SSPS provided a low voltage continuity verification of the wiring and relays, a surveillance performed bi-monthly. The result of the test performed with the wiring error was that containment isolation phase B was not checked bi-monthly and containment spray was checked twice during each surveillance. The wiring error was in the test wiring only, and did not affect the actual Engineered Safeguards Features (ESF) wiring. The containment phase B isolation was manually actuated every 18 months by the phase B manual actuation surveillance (BOS 3.2.1.1.A-2) and the actuation circuitry every 36 months by the ESF response time surveillance (BOS 3.1.2-1). A quarterly Engineered Safety Feature Actuation System (ESFAS) instrumentation slave relay test surveillance (BOS 3.2.1-860) verified that the annunciator and slave relay test circuitry were operable. The wiring error was corrected on Unit 1 trains A and B, and Unit 2 train A.

The vendor was consulted and confirmed the error and agreed with the licensee's solution to rewire the switch. The licensee's review found the circuit documentation indicated proper wiring layout, but the terminal block hookup documents showed incorrect wiring information. A

vendor manual update was submitted by the licensee to correct the terminal board wiring. This information was transmitted to similar type plants. The inspectors concluded that the licensee took appropriate corrective actions. The actual ESF capability was not affected. The circuit test was a continuity test and the quarterly, the 18 month, and the 36 month surveillances verified the functional operability of the circuit. This LER is closed.

2.9 Followup on Previously Opened Items A review of previously opened items (violations, unresolved items, and inspection followup items) was performed per NRC Inspection Procedure 92902.

2.9.1 (Closed) Unresolved Item 454/95011-02(DRP): Auxiliary Feedwater Pump 1B Discharge Header Isolation Valve to 1C Steam Generator (1AF013G) Maintenance. An unresolved item concerning 1AF013G was identified in inspection report 95011. Each concern was addressed in paragraph 2.2 of this report. This item is closed.

2.9.2 (Closed) Inspection Followup Item 454/455-94020-02(DRP): After completing preventive maintenance on the safety injection and residual heat removal crosstie valve, 1SI8807A, the valve motor tripped on thermal overload during post maintenance operation. The limit switches were found out of alignment. The cause was maintenance related. When maintenance was performed on the actuator, a screw was used to disengage the actuator from the limit switch. This screw adjustment allowed for actuator operation without affecting the limit switch setting. However, if the screw was adjusted insufficiently and allowed the actuator to engage the limit switch during the maintenance activities, it would cause a limit switch misalignment. The licensee incorporated additional requirements into the motor operated valve preventive maintenance program to preclude future events of this nature. The post maintenance testing required the verification of correct limit switch alignment locally prior to electrical operation. The crosstie valve, 1SI8807A, was properly repaired and tested prior to returning the valve to service. The inspectors concluded the licensee's corrective action to ensure proper limit switch alignment prior to operating the valve was good. This item is closed.

3.0 ENGINEERING

NRC Inspection Procedure 37551 was used to perform an on-site inspection of the engineering function. The inspectors reviewed the licensee's 10 CFR 50.59 safety evaluations program and the technical problems associated with the new fuel shipments for the Unit 1 refueling outage. During this inspection period, the licensee's engineering organization continued to perform well in supporting the other departments. In particular, the continued evaluation into the circuit breaker problems was an example of good cooperation between engineering, operations, and maintenance (see section 2.4).

3.1 Shipments of New Fuel Delayed for Unit 1 Refueling Outage

On January 30, 1996, the licensee was informed by Westinghouse that the shipments of new fuel for the Unit 1 Spring 1996 refueling outage were placed on hold due to a technical discrepancy. This discrepancy concerned the design parameters of the new fuel pins, which were manufactured with a higher concentration of Integral Fuel Burnable Absorbers (IFBA) and higher rodlet Helium backpressure. The IFBA fuel design was used by the licensee since 1990. The purpose of the design was to phase out the Wet Annular Burnable Absorbers (WABA).

The new fuel problem was not directly associated with the IFBA, but with the initial rodlet Helium backpressure prior to irradiation and subsequent buildup of Helium during irradiation. Westinghouse's recent IFBA Helium release model was updated to indicate a higher generation rate of Helium. This higher generation rate would result in higher internal rodlet pressure, and affect cladding and fuel design limits. Westinghouse and Nuclear Fuel Services, from the licensee's corporate office, evaluated the data and made a preliminary analysis that the new fuel would not exceed the design limits for the fuel or the cladding, based on the next Unit 1 Cycle 8 burnup projections. The licensee also noted that additional evaluations would be required for subsequent burnup cycles. Shipment of new fuel was resumed to the licensee. The inspectors discussed the Westinghouse preliminary assessment with the licensee. Based on the limited and preliminary information provided by Westinghouse, the inspectors concluded that the licensee's decision appeared adequate. Additionally, the inspectors were informed that a final assessment of fuel design parameters was to be performed by completing the Safety Parameter Interaction List for the Unit 1 Cycle 8 burnup prior to startup.

3.2 10 CFR 50.59 Evaluations

The inspectors reviewed of a sample of previously completed 10 CFR 50.59 safety evaluations. Fourteen out of approximately 100 evaluations performed by the licensee over a one year period were selected for the inspection. The safety evaluations were performed in accordance with the licensee's administrative procedure BAP 1210-5, "10 CFR 50.59 Safety Evaluation Procedure." The inspectors determined the licensee's administrative procedure provided adequate guidance to perform the safety evaluations. Of the fourteen evaluations reviewed, one safety evaluation, concerning the reorganization to have two Senior Reactor Operators in the control room, required a change to the technical specifications. The other evaluations reviewed did not require a change to the technical specifications or involved an unreviewed safety question. The inspectors determined that the selected 10 CFR 50.59 safety evaluations were satisfactorily completed.

3.3 Followup on Previously Opened Items

A review of previously opened items (violations, unresolved items, and inspection follow-up items) was performed per NRC Inspection Procedure 92903.

3.3.1 (Closed) Inspection Followup Item 454/455-93012-03(DRP): The licensee removed the wrong irradiated reactor vessel material specimen for Unit 1 due to a discrepancy in the technical specification. The licensee identified that the Technical Specification (TS) Table 4.4-5, "Reactor Vessel Material Surveillance Program - Withdrawal Schedule," was not updated in accordance with the vendor (Westinghouse) specification. However, Westinghouse determined that the removed specimen was adequate for use in the reactor vessel radiation surveillance program. The inspectors concluded, based on Westinghouse evaluation, that no safety or reactor operability concerns were noted. This item is closed.

Although Westinghouse was satisfied with either selection of specimens, the licensee planned to update the table in accordance with the Westinghouse specifications. During 1994, the vendor specifications received some changes and the licensee's documentation indicated that the table was to be revised early in 1995. However, the inspector's recent review of the TS table identified that the revision has not yet been completed. An inspection followup item was opened to track the licensee's action. (50-454/455-95013-08(DRP))

4.0 PLANT SUPPORT

NRC Inspection Procedure 71750 was used to perform an inspection of Plant Support Activities. During this inspection period, the licensee's radiological controls program performance continued to be good. The 1995 collective dose was considered low; however, the 3 year rolling average placed the licensee in the lower half of the 2nd quartile of the INPO collective radiation exposure guideline. A detailed security inspection was performed. The licensee's security organization continued to perform well.

4.1 Radiological Controls

During this inspection period, the inspectors reviewed the licensee's program to monitor and maintain emergency breathing apparatus (gas masks) and mask filters. This review was initiated, in part, due to the security department's lack of knowledge of shelf life requirements on mask filters (see section 4.2.2). Apparently, the security department maintained its own gas mask filters, in contrast to the radiation protection (RP) department's responsibility to maintain the site gas masks. The inspectors concluded that the gas masks under the responsibility of the RP department were satisfactorily maintained.

Also, the inspectors reviewed the licensee's as low as reasonably achievable (ALARA) radiation exposure control program. Station personnel had a good knowledge of RP principles and maintained their doses ALARA. During 1995, the licensee performed a Unit 2 refueling

outage and a Unit 1 mid-cycle steam generator inspection outage. The 1995 total collective dose including both outages was 304.9 person-rem. Without the mid-cycle outage the collective dose was 173 person-rem, an all time Byron best. However, the 3 year rolling dose average placed the licensee in the lower half of the 2nd quartile of the INPO collective radiation exposure guideline. In 1994, the licensee was in the 1st quartile. The inspectors concluded that this drop was due to the additional exposure received during the Unit 1 mid-cycle steam generator inspection outage. The inspectors considered the licensee's 1995 collective dose to be low.

4.2 Security & Safeguards

A security inspection was conducted during the period of February 5-9, 1996. Areas inspected included: audits, corrective actions and management support; alarm stations and communications; testing, maintenance and compensatory measures; protected area detection equipment; and followup on previous inspection findings. No violations, deviations, or unresolved items were noted. Two inspection followup items were identified.

4.2.1 Security Plan

During review of the security plan, some capabilities of certain security components were not accurately described in the security plan. However, in each case, the existing capabilities of the security components equalled or exceeded the capabilities described in the security plan. The concern was administrative. Examples of the inaccuracies included:

(1) The type of perimeter alarm system and backup power supply described in security plan section 10.5.d were inaccurate.

(2) Communication capabilities in security plan sections 10.4.2 and 10.4.3 were inaccurate.

(3) Security plan sections 7.2.5, 10.1.2, and 10.3.4 (description of alarm assessment capabilities) were inaccurate in reference to the assessment capabilities in one of the alarm stations.

This issue is an inspection follow-up item, pending review of the licensee's corrective action. (50-454/455-95013-09(DRS))

4.2.2 Security Equipment

The inspectors questioned the availability of gas mask inserts for eye glasses. Personnel assigned as response force members require gas masks as part of their response equipment under certain contingencies. The type of gas masks available prevented wearing the mask while wearing eye glasses. Gas mask inserts were available for use with the masks, but the personnel were not able to retrieve the inserts from the storage location in time to meet response time requirements.

The inspectors also questioned the serviceability of the filters for the gas masks that may have to be used by response force members. The manufacturer for the equipment had provided significantly varying information about the shelf life for the filters (from one year to indefinite). The inspectors were concerned that shelf life and effective period of use of gas mask filters had not been clearly defined. This issue is an inspection follow-up item, pending the results of the licensee's investigation. (50-454/455-95013-10(DRS))

Maintenance support for security equipment also continued to be effective. Security equipment components requiring compensatory measures were usually repaired within one or two days. Compensatory measures for equipment failure during December 1995 were the lowest in the past twelve months. In-service time for most permanently installed security equipment exceeded 99 percent.

Implementation of the biometrics hand geometry system appeared successful. The vehicle barrier system was also progressing adequately and was scheduled to be ready by February 29, 1996, the effective date required by 10 CFR 73.55 sections c.7 and c.8.

4.2.3 Security Self Assessment

Security self assessment efforts continued to be varied and proactive. Since the previous inspection in June 1995, the security section had completed about five self evaluations and identified about 14 observations. These efforts were in addition to the annual program audits performed by the Quality Assurance department.

Security performance trends monitored on a monthly basis, such as security plan deviations, compensatory measures, logable security incidents, and security component in-service time, improved or remained steady for the past five months (through December 1995). The inspectors concluded that the security organization continued to perform well with no adverse trends.

4.3 Followup on Previously Opened Items

A review of previously opened items (violations, unresolved items, and inspection follow-up items) was performed per NRC Inspection Procedure 92904.

4.3.1 (Closed) Inspection Followup Item 50-454/455-94017-04(DRS): This item was addressed in Section 3.b.(5) of inspection report 94017 and a Safeguards Information attachment to the above report. This item pertained to search of hand carried items (details of the issue are considered Safeguards Information and exempt from public disclosure in accordance with 10 CFR 73.21). Since the previous inspection in June 1995, there have been 41 search drills conducted by the contract security force and 18 search drills conducted by the licensee. In all but one of the drills, the prohibited item or contraband item was discovered during the search process. This item is closed.

4.3.2 (Open) Inspection Followup Item 50-454/455-95007-08(DRS): This item was addressed in Section 4.2.2 of Inspection Report 95007 and pertained to four instances where security procedure requirements were unknown by the security staff and therefore were not complied with. The previous inspection report noted that the procedural requirements were of low safety significance but indicated a need for the security staff to become more knowledgeable of applicable security procedure requirements. Of the four examples of procedure weakness two were closed, but two of the items remained open.

(1) One of the issues (submittal for criminal history checks) has, subsequent to the June 1995 inspection, become a generic issue. Resolution of this issue will be addressed by separate correspondence. This issue will remain open.

(2) Another issue pertained to documentation of physical examinations for training certification purpose. This issue was being addressed on a company wide basis and may be included in the next revision to the security plan. This issue will remain open.

(3) An additional part of this inspection followup item pertained to several categories of documents being used to implement the security plan which were not being reviewed and controlled as procedures. This issue had been resolved by a revision to procedure BAP 900-12, "Security Procedures," which correctly identified all of the type of procedures used to implement the security plan, and identified review and distribution requirements. This item is closed.

(4) The fourth issue pertained to issuing security badges prior to review and sign off of the badge issue request form by the Station Security Administrator (SSA), which was contrary to the existing procedure BAP 900-3, "Personnel Identification." This procedure was revised to allow issue of the security badge prior to final review by the SSA. The revision described the current work practices. This item is closed.

5.0 COMED/UNION LABOR DISPUTE

NRC Inspection Procedure 92709 was used in the performance of an inspection of licensee's strike contingency plan.

5.1 Background

On April 1, 1995, the licensee's old union contract had expired. During late 1995, the International Brotherhood of Electrical Workers Local Union 15 had rejected ComEd's new contract proposals and the labor dispute started. The labor dispute continued through 1995. During December 1995, the licensee considered the potential of a union strike and started to develop a contingency plan. The licensee did not have a preexisting strike contingency plan. On January 16, 1996, the licensee informed the NRC that the local union would request strike authorization

from its members in a February 21 strike vote. However, on February 16 the licensee and the union conducted a meeting to try to settle the contract issue. On February 20, 1996, the licensee made an official announcement that a contract agreement was made with the union. The strike vote was canceled, but the union membership was to vote on the acceptance of the new contract sometime in April 1996.

5.2 Strike Contingency Plan Review

During the second week of January 1996, the inspectors checked the licensee's status on completing the strike contingency plan. On February 9, 1996, the licensee submitted to the inspectors a comprehensive strike contingency plan. The strike contingency plan referenced the NRC inspection procedures 92709, "Licensee Plans for Coping with Strikes," 92711, "Continued Implementation of Strike Plans During an Extended Strike," and 92712, "Resumption of Normal Operation After a Strike." Also, the licensee's contingency plan was reviewed by the on-site safety review committee. The contingency plan was subdivided into several functional areas. These functional areas included: operations, maintenance, chemistry, radiological protection, emergency preparedness, material management, security, training, work control, engineering, and site quality verification. The inspectors verified that Byron station had sufficient number of actively licensed Senior Reactor Operators to continue plant operations meeting the minimum staffing requirements per the technical specifications. The inspectors performed a detailed review of the licensee's strike contingency plan, with the exception of a review of personnel records and experience of individuals selected for staff positions as non-licensed operators. The inspectors concluded that the contingency plan was satisfactory.

6.0 REVIEW OF UPDATED FINAL SAFETY ANALYSIS REPORT COMMITMENTS

A recent discovery of a licensee operating their facility in a manner contrary to the Updated Final Safety Analysis Report (UFSAR) description highlighted the need for a special focused review that compares plant practices, procedures, and/or parameters to the UFSAR descriptions. During a portion of the inspection period (February 1-22, 1996) the inspectors reviewed the applicable portions of the UFSAR that related to the inspection areas discussed in this report. The following inconsistencies were noted between the wording of the UFSAR and the plant practices, procedures and/or parameters observed by the inspectors.

The UFSAR refers to the security plan for the description of security practices. Within the security plan for the areas inspected, some capabilities of certain security components were not accurately described. In each case however, the existing capabilities of the security components equalled or exceeded the capabilities described in the security plan (see section 4.2.1). The inspectors determined that the above issue was of an administrative nature with minor consequence, and no additional documentation was required in this report.

7.0 PERSONS CONTACTED AND MANAGEMENT MEETINGS

7.1 Information Visit

On February 13, 1996, Messrs. Kamalaka Naidu and David Skeen, inspectors from the Office of Nuclear Reactor Regulation, Special Inspection Branch and Events Assessment and Generic Communications Branch, respectively, visited the Byron station. The visit was an effort to gather further information concerning Westinghouse breaker problems (see section 2.4) and the emergency diesel generator Agastat relay problems (see inspection report 95011).

7.2 Exit Meetings

The inspectors contacted various licensee operations, maintenance, engineering, and plant support personnel throughout the inspection period. Senior personnel are listed below.

At the conclusion of the inspection on February 22, 1995, the inspectors met with licensee representatives (denoted by *) and summarized the scope and findings of the inspection activities. Licensee representative attending the Security Exit on February 9, 1996 are denoted by (+). The licensee did not identify any of the documents or processes reviewed by the inspectors as proprietary.

K. Graesser, Site Vice President
\+ K. Kofron, Station Manager
* D. Wozniak, Site Engineering Manager
* T. Gierich, Operations Manager
P. Johnson, Technical Service Superintendent
* E. Campbell, Maintenance Superintendent
* M. Snow, Work Control Superintendent
*+ D. Brindle, Regulatory Assurance Supervisor
A. Javorik, System Engineering Supervisor
*+ T. Higgins, Support Services Director
\+ E. Zittle, Security Administrator
K. Passmore, Station Support & Engineering Supervisor
T. Schuster, Site Quality Verification Director
\+ R. Colglazier, NRC Coordinator
B. Gossman, Chemistry Supervisor
R. Wegner, Shift Operations Supervisor
* W. Kouba, Long Range Work Control Superintendent
\+ R. Cassidy, FFD Scheduler
\+ R. Spencer, Security District Manager
\+ M. Mareth, Security Force Manager
\+ J. Gere, Administrative/Training Coordinator
\+ D. Minor, Operations Coordinator
*+ P. O'Neill, SQV Audit Supervisor
* J. Vogl, Regulatory Assurance - NRC Coordinator Backup
* J. Van Laere, Assistant System Engineering Supervisor
* M. Lesniak, Licensing - Downers Grove