U. S. NUCLEAR REGULATORY COMMISSION

REGION III

REPORT NO. 50-454/95008(DRP); 50-455/95008(DRP)

FACILITY

Byron Station, Units 1 & 2

License No. NPF-37; NPF-66

LICENSEE

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

DATES

August 4 through September 18, 1995

INSPECTORS

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APPROVED BY

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10/20/95

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AREAS INSPECTED

A routine, unannounced inspection of operations, engineering, maintenance, and plant support was performed. Safety assessment and quality verification activities were routinely evaluated. Four apparent violations were identified and are being considered for escalated enforcement action. The apparent violations pertained to the circumstances associated with the 1B hydrogen monitor being inoperable for a significant period of time.

RESULTS

Assessment of Performance

Inspections in the operations area generally showed a number of strong attributes, although one lapse in control of plant parameters was observed. The licensee continued to be self-critical in identifying performance problems. Conservative operation by control room operators was demonstrated during troubleshooting and repairs on the rod drive motor generator output breaker (paragraph 1.1.1). Also, the questioning attitude of one operator, concerning an annunciator alarm, led to the identification of a long-standing problem with the 1B Hydrogen Monitor. The circumstances of the 1B hydrogen monitor problem appeared to indicate previously missed opportunities by the licensee to identify the problem earlier. This issue revealed four apparent violations (paragraph 3.1). A loss of control of plant parameters during routine load following activities caused a short duration reactor coolant system pressure transient. The incident itself was minor; however, the loss of control and the potential significance of exceeding power distribution limits were of concern (paragraph 1.1.2). Overall, the inspectors determined that the licensee carried out its responsibility to oversee and direct safe plant operations in a proper fashion.

The licensee's involvement and coordination of routine surveillance and minor maintenance activities were reviewed by the inspectors, and no major concerns were noted. The licensee exhibited good coordination between operations. maintenance, and ergineering in the investigation and repair of the 1B diesel generator starting circuit relays (paragraph 2.4). However, the licensee experienced some coordination problems during fire protection surveillance test at the River Screen House, which could have resulted in more serious consequences (paragraph 2.2). Some examples of poor foreign material exclusion (FME) practices were identified (paragraph 2.1); one incident involved an individual working inside the spent fuel pool FME cleanliness zone without taking the required FME precautions. The licensee identified a situation where a safeguards document used by maintenance personnel was not properly controlled in accordance with station procedures. The above violations of station procedures (FME and safeguards document control) were of minor significance and were considered as non-cited violations (paragraphs 2.1 and 2.3).

Several issues required engineering attention. The most significant of these was the inoperability of the 1B Hydrogen Monitor for a significant period of time. This incident led to the identification of four apparent violations (paragraph 3.1). Another issue was the troubleshooting and repair of the 1B diesel generator, as described in maintenance paragraph 2.4. Overall, the support level and quality of the investigations performed by the engineering group, related to these issues, was good.

No major concerns were noted with the licensee's radiological protection, emergency preparedness, and chemistry organizations during this inspection period. However, in the area of Security and Safeguards, the inspectors noted an apparent weakness in plant personnel understanding of certain security requirements. One non-cited violation concerning licensee's security practices was identified (paragraph 4.1.1). However, the licensee's overall security organization continues to perform its plant responsibilities.

<u>SUMMARY OF OPEN ITEMS</u> <u>Apparent Violations:</u> identified in Section 3.1.5. <u>Unresolved Items:</u> none <u>Inspection Follow-up Items:</u> none <u>Non-cited Violations:</u> identified in Sections 2.1, 2.3, 4.1.1.

INSPECTION DETAILS

1.0 OPERATIONS

NRC Inspection Procedure 71707 was used in the performance of an inspection of ongoing plant operations. No violations were identified.

1.1 Performance of Operations at Power

Plant operations were generally well-managed during this report period. Examples of conservative operation and a questioning attitude were demonstrated. The identification of the hydrogen monitor event discussed later was made by an operator questioning the validity of an unexpected alarm during a surveillance. However, the inspectors determined that prior opportunities were missed by other operators to identify the same hydrogen monitor problem. An isolated case of not adequately controlling plant parameters during routine load following activities resulted in a reactor coolant system pressure transient.

1.1.1 Proactive and Conservative Operator Action

During a Unit 2 power reduction on September 8, the 2B Rod Drive Motor Generator (MG) output breaker opened. Reactor power was being reduced for main generator voltage regulator troubleshooting and repair. When control rod group Control Bank C started to move, the MG set trouble alarm was received. The Nuclear Station Operator (NSO) immediately stopped reducing power and dispatched an operator to investigate. The operator found the MG set output breaker open, but there was no apparent cause. Rather than reclose the breaker, the operators called for an investigation. The NSO diligently monitored the troubleshooting activities and required explanations and expected results at each step in the troubleshooting process.

Troubleshooting identified the overvoltage trip relay slightly out of calibration. After the relay was calibrated, the NSO returned the rods to a more desirable position for axial flux considerations with the guidance of a nuclear engineer. The nuclear engineer suggested the amount of rod motion required and that the first part of the movement would not have a large temperature effect on the reactor. The NSO disagreed and conservatively used a smaller increment of rod motion. The actual effect on the reactor was larger than predicted by the nuclear engineer.

This evolution demonstrated conservative and proactive operations. Good team work between the operators and other departments created an atmosphere which allowed the MG set to be repaired in a safe, timely, and efficient manner. NSO involvement and evaluation of the evolution was very good and displayed a sense of responsibility for the activities on the unit.

The inspectors subsequently questioned the calibration of the overvoltage trip relays for the other three MG set output breakers. The licensee initiated actions to verify and reset the calibration setting on the relays as necessary.

1.1.2 Reactor Pressure Transient

During routine electrical load following on Unit 2, pressurizer pressure dropped to 2209 psig due to operator error. The reduced pressure caused an entry into Technical Specification 3.2.5.b which required indicated pressurizer pressure to be maintained greater than or equal to 2219 psig. The associated action statement required pressure to be restored greater than 2219 psig within 2 hours or reduce power to less than 5 percent of rated thermal power within the next 4 hours. Pressurizer pressure was restored to greater than 2219 psig in approximately 15 minutes.

During the power change, the operator was attentive to the main control board, but was not controlling reactor coolant system (RCS) parameters within a tight control band. When the power increase began, RCS temperature was decreasing due to xenon buildup following the power decrease. Boron dilution was inadequate to compensate for the xenon buildup. The temperature decrease caused pressurizer pressure to decrease. By the time additional pressurizer heaters were energized, pressurizer pressure decreased to 2209 psig prior to returning above the TS limit. The dilution rate was not at the maximum rate until pressure was low, and control rods were not used to raise temperature.

The safety significance of the event was low as determined by the small magnitude and short length of time the pressure was lower than 2219 psig. The primary concern was the potential for the RCS to reach departure of nucleate boiling at low system pressure. The operators took appropriate action to return the RCS to the proper pressure well within the TS time limit. Although no violation occurred, the loss of control during a routine load following evolution was of concern.

2.0 MAINTENANCE

NRC Inspection Procedures 62703 and 61726 were used to perform an inspection of maintenance and surveillance activities. Three minor examples of poor foreign material exclusion (FME) practices were identified early in the inspection period; two of these were identified by the NRC. One was a station procedure violation and was treated as a Non-cited violation. In addition, a safeguards document used by maintenance personnel was not controlled in accordance with station procedures. Control of safeguards information was an important part of station security; however, due to the content of the material and licensee identification, this issue was also treated as a noncited violation.

2.1 Foreign Material Exclusion Practices

Foreign Material Exclusion (FME) practices were generally good during the period. However, during a Fuel Handling Building tour, the inspectors identified two examples of poor practices.

Some floor grating had been removed from over a section of the fuel transfer canal. Only the normally installed handrail was used to establish a barrier; there was no physical barrier to prevent material from falling or being kicked into the canal. The inspectors noted that there was a plastic wall installed at the other end of the transfer canal to avoid a similar problem. After the situation was identified by the inspectors, the grating was quickly replaced.

The second example identified by the inspectors was a mechanic not meeting the requirements for control of personal articles within a designated FME cleanliness zone. Byron Fuel Handling Procedure (BFP) FH-31 required an eye glass strap to be worn and all pockets (articles) to be taped. The mechanic was not wearing an eye glass strap and his pockets containing his security badge and dosimetry were not taped. When questioned by the inspectors, the mechanic was not aware of nor understood the FME requirements. This failure constitutes a violation of minor significance and was being treated as a Non-Cited Violation, consistent with Section IV of the NRC Enforcement Policy.

In addition, later in the inspection period, three bolts were found by the licensee on the bottom of the fuel transfer canal.* The canal had been drained for a few days for maintenance, and maintenance was still in progress. The bolts were not in the canal when the canal was drained. The bolts were subsequently removed.

2.2 River Screen House CO, Surveillance Test

On August 29, a fire protection surveillance for the river screen house (RSH) CO₂ system was being performed. The surveillance was a "puff" test which activated the system at the detector, monitored the time delay prior to CO, discharge, then verified a small quantity of CO. actually discharged. On the first attempt the main control room did not receive an actuation alarm so the test was repeated. The second attempt was going to allow the CO, to discharge longer to verify the alarm would actuate in the control room. The electrician designated to start the test was also required to pull the fuse to terminate the test. Fuse removal was the standard method of securing the CO_2 . When the CO_2 discharged, the cloud produced grew so quickly the individual could not immediately find the fuse panel. When an operator, stationed at the manual isolation valve as a safety man, saw the cloud, he began to shut the valve while holding his breath. The electrician was wearing a self contained breathing apparatus (SCBA); however, the operator at the manual valve was not. The operator left the area prior to getting the valve completely shut. Soon after the operator left, the electrician located the fuse and terminated the discharge. No one was injured.

Initial investigation by the licensee revealed the procedure had recently been revised. The procedure indic ted the main control room would receive two alarms, one associated with the CO_2 system actuation and one from the fire protection system indicating a fire. Both alarms typically actuate together, but not for the particular zone at the RSH. The second attempt of the test was not necessary since the alarm the procedure indicated would actuate in the control room was not designed or required to actuate.

The inspectors concluded that personnel errors related to poor procedural reviews had created a potential personnel hazard. The inspectors also had concerns relating to the coordination and adequacy of implementing the test. Although, there were three additional people in the area, two supporting communications with the control room and one for atmosphere monitoring, only one individual was utilizing a SCBA. The RSH overhead door was open due to hot weather. The inspectors concluded that if the door had been shut, the potential consequences would have been grave for the individuals without SCBAs. At the conclusion of this inspection period, the licensee had initiated a formal investigation to consider further corrective actions to prevent recurrence, including the review of other recently revised procedures and the review of the CO₂ test implementation.

2.3 Unsecured Safeguards Document

On August 28, the licensee identified that a safeguards document was not in an authorized storage area. The document was an electrical drawing used by electrical maintenance during construction of a security barrier. The drawing was properly checked out and was used properly during the day shift while construction activities were in progress. After work was completed for the day, the document was not returned by the mechanic as required by station security procedures. The drawing was locked in a desk drawer in the electrical maintenance shop and not recovered until the next day. The event was considered an insignificant loss of control of safeguards material by the licensee.

This failure constitutes a violation of minor significance and was being treated as a Non-Cited Violation, consistent with Section IV of the NRC Enforcement Policy. Since maintenance personnel were involved in the loss of control of safeguards material, the Non-Cited Violation was discussed in this section of the report. The inspectors concluded that plant personnel understanding of security requirements was weak.

2.4 <u>IB Diesel Generator</u>

During a routine semi-annual surveillance of the Unit 1B Diesel Generator on September 6, the diesel was running unloaded when the engine tripped. The engine had been started in the emergency mode and then returned to the normal mode for a 15 minute warmup before loading. The engine tripped approximately 13 to 14 minutes into the warmup period. The trip did not give any alarms on the diesel panel; only a small trip indicator illuminated. The licensee declared the diesel inoperable and started the 72 hour time period for the limiting condition for operating (LCO) in a timely manner. The system engineer traced the possible cause as being two relays in the startup circuitry, which were subsequently replaced. The diesel surveillance was performed satisfactorily with the monthly run and load procedure. The diesel was returned to service within 12 hours. The suspect relays were tested and one proved to be faulted.

At the conclusion of the inspection period, the licensee was involved in the evaluation of event and determination of valid or invalid failure of the diesel generator performance. Overall, the inspectors concluded that the coordination between operations, maintenance, and engineering during the troubleshooting and repairs was good.

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

(Closed) Violacion 50-454/455/94010-05(DRS)): A relief valve on emergency diesel generator 1A was installed outside of the design drawing allowed dimension tolerance. The licensee checked similar installations and found additional minor dimensional deviations. The inspector considered the licensee follow-up actions and technical evaluations to be adequate. This item was considered closed.

3.0 ENGINEERING

NRC Inspection Procedure 37551 was used to perform an on-site inspection of the engineering function. Engineering interface with operations, maintenance, and other site organizations continued to be satisfactory. The engineering department conducted a thorough investigation of the hydrogen monitor problem. Four apparent violations were identified.

3.1 Inoperable Unit 1 Post-LOCA Hydrogen Monitors

3.1.1 Description of the Event

On August 16, while performing shiftly Technical Specification (TS) surveillances, a Nuclear Station Operator (NSO) identified that the Unit 1, train B Post Accident Hydrogen (H₂) monitor generated a trouble alarm after about seventeen minutes and then cleared within thirty seconds. A Problem Identification Form (PIF) was initiated. Because train A and B instrument readings were comparable and consistent, both instruments were believed operable. Instrument Maintenance (IM) technicians conducted troubleshooting activities on the 18 H₂ monitor to determine the cause of the trouble alarm and found the water trap isolated. The drain line, purge air inlet, and water trap drain line were all separated and capped. One section of tubing (air sample inlet solenoid valve to the water trap) was not installed. During monitor operation, a purge cycle was executed every fifteen minutes to drain water held up in the water trap. Because the water trap was isolated, a low flow alarm was generated when the trap was automatically aligned for

the purge cycle and the alarm cleared after about fifteen seconds, when the purge cycle was completed. Initially system engineering determined the monitor was operable. The operations operability assessment noted the component's current condition out-of-service for troubleshooting. The following week, after discussions between the licensee and the vendor, the monitor was declared inoperable. The capped tubing was reconnected; the missing tubing was found near the test gas bottle storage rack and reinstalled. The IB H_2 monitor was declared operable on August 21.

Operating personnel were required to perform a channel check on the H. monitors every eight hours per TS 3/4.6.4. Byron Operating Surveillance (BOS) 0.1-1.2.3, "Unit One Mode 1, 2 & 3 Shiftly and Daily Operating Surveillance," required operating personnel to operate the IB H, monitor for seventeer minutes before taking readings to ensure an adequate purge of the sample line. The revision that required the seventeen minute period was incorporated in February, 1993. Several NSOs routinely ran the hydrogen monitors long enough for the output readings to stabilize and be consistent between trains A and B. Since the trouble alarm was not received during every surveillance, the inspectors concluded that the hydrogen monitors were occasionally not run for greater then seventeen minutes as required by BOS 0.1-1,2,3. In addition, as a result of the coincidence of the alarm actuating approximately fifteen minutes after the 18 monitor was started and the seventeen minute sample line purge time requirement, some NSOs used the 1B monitor alarm as a timer to indicate when enough time had elapsed to meet the surveillance requirements.

In addition to the tubing caps isolating the water trap, the IMs found the water trap outlet solenoid valve failed open. None of the station surveillance procedures verified functionality of the water trap or the water trap drain valve. According to the vendor, the water trap was required for the H_2 monitor to be operable. The surveillance procedures did not verify or test the proper operation of the water trap, therefore the inspectors concluded that the surveillance procedures were inadequate.

Following the Braidwood incident in March 1995, the licensee performed a "cursory" walkdown to ensure system continuity. Byron practice was to disconnect inlet and outlet tubing outside the monitor cabinet to perform the similar Braidwood test, therefore the walkdown concentrated only on the outside tubing connections. Only after prompting by the NRC did the licensee open the cabinets. The two locations where Braidwood had broken H_2 monitor system integrity were the only connections verified. One of the locations, the sample return line, was only inches from the water trap. While the disconnections around the water trap would not have been identified by causal observation, a simple tracing of the system flowpath could have identified the installed caps and the missing tubing. The inspectors considered this a missed opportunity to identify the isolated water trap.

The licensee was unable to identify any work which could have affected the water trap on the $1B H_2$ monitor since construction. There were three occurrences where both monitors were out-of-service for greater than 72 hours: 16 days from January 25, 1988 to February 10, 1988; 25 days from November 24, 1988 to December 19, 1988; and 22 days from June 26, 1989 to July 18, 1989.

The safety significance of the event was considered to be low. Both trains were inoperable and unable to perform their post-LOCA functions for some period beyond the Technical Specification Limiting Condition of Operation. In addition, prior to starting the hydrogen recombiner, the hydrogen concentration was required to be greater than 0.5 percent of dry air per the Emergency Operating Procedure. According to the vendor, the hydrogen monitor would indicate a concentration less than actual. This may have prevented the recombiner from being started. However, other methods of determining H₂ concentration were available.

3.1.2 Root Cause

The licensee's investigation was inconclusive. The inspectors concluded that the most probable root cause of this incident was that the water trap for the 1B H_2 was never properly connected during construction, and preoperational testing did not identify the error. A secondary cause was the failure to develop and implement an adequate surveillance program for the H_2 monitors. Finally, NSOs had expected the alarm on a routine basis. The alarm had been received for such a great length of time it was considered a feature of the system rather than an indication of a problem.

3.1.3 Technical Specification (TS) Requirements

Technical Specification 3.6.4.1 requires that two independent trains of Containment Hydrogen Monitors are to be operable in Modes 1 and 2. The TS allows one train to be inoperable for up to 30 days or the unit must be in at least Hot Standby within the next 6 hours. TSs also allows both trains to be inoperable; however, the unit must restore at least one monitor to operable status within 72 hours, or be in at least Hot Standby within the next 6 hours.

3.1.4 Licensee Corrective Actions

The licensee, immediately, upon discovery of the Train B water trap isolation on August 16, 1995, verified that Train A and both trains on Unit 2 had properl, connected water traps. Train B was also promptly returned to operable status after troubleshooting and repair.

The licensee also planned to modify the surveillance program to verify the purge cycle functionality. A sampling of procedures that direct action in accordance with another procedure was to be reviewed to ensure consistency between the two documents. The annunciator response administrative procedure was to be reviewed as to the definition and handling of "expected" and "unexpected" alarms. In addition, the actual event and lessons learned was to be presented during continuing training to operating, maintenance, and system engineers.

3.1.5 Conclusion

Unit 1 Train B H₂ monitor was inoperable from construction until August 21, 1995, a period of greater than 10 years. Technical Specifications (TS) allowed one train to be inoperable for up to 30 days or the unit must be in at least Hot Standby within the next 6 hours. In addition, there were three occurrences where both monitors were out of service for greater than 72 hours: 16 days from January 25, 1988 to February 10, 1988; 25 days from November 24, 1988 to December 19, 1988; and 22 days from June 26, 1989 to July 18, 1989. TS permitted both trains of the Containment Hydrogen Monitors to be inoperable for up to 72 hours, after which at least one train must be restored to operable status, or the unit must be in at least Hot Standby within the next 6 hours. These are four examples of an apparent violation of technical specifications (50-454/455/95008-01(DRP)).

Several opportunities to identify the inoperability of the containment hydrogen monitoring system prior to the August 16, 1995 discovery were missed. The first had occurred on many occasions since at least February 1993. The operators failed to question why the H_2 monitor trouble alarm was periodically received. This was an apparent violation of TS 6.8.1 and Byron Administrative Procedure (BAP) 300-1 "Conduct of Operations," which required operating personnel to take timely and proper actions to ensure the safe operation of the facility (50-454/455/95008-02(DRP)).

Several NSO's routinely ran the hydrogen monitors long enough for the output readings to stabilize and be consistent between trains A and B. Since the 1B hydrogen monitor trouble alarm was not received during every surveillance, the hydrogen monitors were occasionally not run for greater then seventeen minutes. This was an apparent violation of TS 6.8.1 and Byron Operating Surveillance (BOS) 0.1-1,2,3 (50-454/455/95008-03(DRP)).

As of August 16, the licensee had not established procedures for testing the water purge cycle of the H_2 monitors. This is an apparent violation of 10 CFR 50, Appendix B, Criterion XI (50-454/455/95008-04(DRP)).

A strong positive indicator was the initial identification of the H_2 monitor trouble alarm. The NSOs had received this alarm for years and eventually the alarm became expected. The alarm was essentially passed down from NSO to NSO as a normally expected alarm. Yet on August 16, 1995, an NSO questioned the alarm and documented the question. The questioning attitude displayed by the NSO identified a problem that had existed for more than 10 years and had avoided detection through the surveillance program.

4.0 PLANT SUPPORT

NRC Inspection Procedure 71750 was used to perform an inspection of Plant Support Activities. The licensee continued to perform well in the areas of radiological protection, emergency preparedness, and chemistry was considered satisfactory. No major concerns were noted in these areas. In the area of Security and Safeguards, the inspectors noted apparent weakness in plant personnel understanding of certain security requirements.

4.1 Security & Safeguards

The inspectors noted overall satisfactory performance of routine items including proper display of photo-identification badges by station personnel, verification that vital areas were locked and alarmed, and personnel and packages entering the protected area were adequately searched by appropriate equipment or by hand.

4.1.1 Station Awareness of Security Requirements

During this inspection period, the licensee identified two instances of procedure violations relating to visitor and safeguards information control.

The first item was the identification of inadequate visitor to escort ratio. Eight visitors were in a vital area with only one escort. Byron Administrative Procedure (BAP) 900-5, "Escort Duties," allows a maximum of five visitors per escort in a vital area and ten visitors per escort in the protected area. Interim corrective action taken by the licensee included allowing only five visitors per escort anywhere in the protected area. The visitor to escort ratio problem was also identified in a earlier inspection report; however, the cause was determined to be an inadequate procedure guidance in the radiological protection procedure for entry into a radiologically controlled area.

The second item involved the licensee's identification of an occurrence of inadequate safeguards document control. The event involved the lack of control of electrical drawings by maintenance. This issue was discussed in paragraph 2.3. The licensee was reviewing potential corrective action, primarily briefings for maintenance department on the correct procedures for handling safeguards information, at the end of the inspection period.

The inspectors considered that the above incidents as two examples of security rules being forgotten or misunderstood. Neither the escort to visitor ratio violation or the safeguards storage issue were subtle rule violations. The two cases taken together indicate a lack of security awareness among station personnel. These two licensee-identified and corrected violations were being treated as a Non-Cited Violation, consistent with Section VII of the NRC Enforcement Policy.

4.1.2 Entrance Turnstile Alarm Capability Lost

On September 7, the licensee reported a security event under the guidelines of 10 CFR 73.71. From 11:41 a.m. until 1:15 p.m. an alarm point was lost without compensatory actions in place. Maintenance personnel were preparing as-built drawings in preparation for future modifications to a security alarm point. The alarm was : entionally disabled by security personnel to allow the electrical inspection. When the inspection was complete, security personnel were notified of the completion of the inspection, but failed to reset the alarm. The security personnel were distracted by other business at the time the work was completed. The alarm was not identified as disabled until 1:15 p.m. when it was promptly restored to normal. This event was reported under the guidelines of Byron Administrative Procedure 900-18, "Reporting and Recording of Security Events."

The licensee took timely, proper action once the condition of the alarm count was identified. Notification was timely, and overall corrective actions were considered good.

5.0 PERSONS CONTACTED AND MANAGEMENT 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 September 18, the inspectors met with licensee representatives (denoted by *) and summarized the scope and findings of the inspection activities. 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, Technical Staff Supervisor
- T. Higgins, Support Services Director
- *E. Zittle, Security Administrator
- K. Passmore, Station Support & Engineering Supervisor
- P. Donavin, Site Engineering Mod Design Supervisor
- *T. Schuster, Site Quality Verification Director
- *R. Colglazier, NRC Coordinator
- R. Wegner, Shift Operations Supervisor
- *W. Kouba, Long Range Work Control Superintendent