

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Reports No. 50-456/88022(DRP); 50-457/88022(DRP)

Docket Nos. 50-456; 50-457

License No. NPF-72; NPF-77

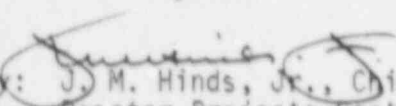
Licensee: Commonwealth Edison Company
Post Office Box 767
Chicago, IL 60690

Facility Name: Braidwood Station, Units 1 and 2

Inspection At: Braidwood Site, Braidwood, Illinois

Inspection Conducted: July 10 through August 27, 1988

Inspectors: T. M. Tongue
T. E. Taylor

Approved By:  J. M. Hinds, Jr., Chief
Reactor Projects Section 1A

09-14-88
Date

Inspection Summary

Inspection from July 10 through August 27, 1988 (Reports No. 50-456/88022(DRP);
No. 50-457/88022(DRP))

Areas Inspected: Routine, unannounced safety inspection by the resident inspectors of licensee action on previously identified items; licensee event report review; overtime by personnel performing safety-related activities; drought and heat wave effect; startup test observation; operational safety verification; radiological protection; engineered safety feature (ESF) systems; physical security; monthly maintenance observation; monthly surveillance observation; training effectiveness; report review; licensee actions in response to substance abuse; and meetings and other activities.

Results: No violations or deviations were identified.

DETAILS

1. Persons Contacted

Commonwealth Edison Company (CECo)

T. J. Maiman, Vice President, PWR Operations
K. L. Graesse, General Manager, Power Operations
S. C. Hunsader, Nuclear Licensing Administrator
R. E. Querio, Station Manager
*D. E. O'Brien, Station Services Superintendent
*K. Kofron, Production Superintendent
*L. E. Davis, Assistant Superintendent, Technical Services
B. Byers, Assistant Construction Superintendent
M. Lohman, Project Startup Superintendent
P. Cretens, Station Startup Assistant Superintendent
F. Willaford, Security Administrator
S. C. Roth, Assistant Security Administrator
D. E. Paquette, Maintenance Assistant Superintendent
G. R. Masters, Operations Assistant Superintendent
*P. L. Barnes, Regulatory Assurance Supervisor
M. Takaki, Regulatory Assurance
J. Gosnell, Quality Control Supervisor
R. E. Aker, Radiation/Chemistry Supervisor
J. Jasnoz, Technical Staff AR/PR Coordinator
R. Lemke, Technical Staff Supervisor
G. E. Groth, Startup/Testing Supervisor
*P. G. Holland, Regulatory Assurance
R. C. Bedford, Regulatory Assurance
R. D. Kyroutac, Quality Assurance Supervisor
L. Kline, Regulatory Assurance Industry Group
L. W. Raney, Nuclear Safety
R. J. Ungeran, Operating Engineer, Unit 1
R. Yungk, Operating Engineer, Unit 2
B. McCue, Operating Engineer, Unit 0
R. J. Legner, Lead Operating Engineer
T. O'Brien, Technical Staff
S. Hedden, Master, Instrument Maintenance
J. Huffman, Master, Mechanical Maintenance
J. Smith, Master, Electrical Maintenance
W. McGee, Training Supervisor
B. Tanouye, Project Construction Department
A. J. D'Antonio, Quality Control
D. H. Schavey, Training
E. Carroll, Regulatory Assurance

*Denotes those attending the exit interview conducted on August 24, 1988 and at other times throughout the inspection period.

The inspectors also talked with and interviewed several other licensee employees, including members of the technical and engineering staffs.

startup engineers, reactor and auxiliary operators, shift engineers and foremen, electrical, mechanical and instrument maintenance personnel, as well as contract security personnel and construction personnel.

2. Licensee Action on Previously Identified Items

a. Unresolved Item

(Closed) 456/88003-01: Inadequate surveillance test shift brief. The licensee's response to this item was to issue a special operating order entitled "Surveillance Briefing Responsibilities." The order reemphasizes the responsibility of the control room supervisor to review upcoming surveillances regardless of frequency and to conduct or direct others to conduct appropriate briefings commensurate with the complexity of the evolution and the expected results. The inspector has monitored general surveillance briefings subsequent to the eighteen-month Bus 142 undervoltage test, during which the inspector raised the concern of inadequate shift briefs. The results of the reviews show that the shift briefs appear to be adequate, with all participating persons being knowledgeable of expected surveillance test activities and their impact on plant operations. This item is considered closed.

b. Violation

(Closed) 456/87042-01: Manipulation of reactor controls by an unauthorized individual on September 20, 1987. The inspector has monitored the implementation of the licensee's corrective actions for this event. On October 1, 1987, the Nuclear Operations Division issued a letter which defines the personnel allowed to manipulate reactor controls. This letter was reviewed with licensed shift personnel. In addition, the Station Training Department issued a letter on October 18, 1987 (periodically updated), specifying by name the individuals in license training who currently qualify for the exemption described in 10 CFR 55. A copy of this letter is available in the control room.

The inspectors' periodic monitoring of the above corrective action has identified no further violations in this area. This item is considered closed.

No violations or deviations were identified.

3. Licensee Event Report (LER) Review

Through direct observations, discussions with licensee personnel, and review of records, the following event reports were reviewed to determine that reportability requirements were fulfilled, that immediate corrective action was accomplished, and that corrective action to prevent recurrence had been or would be accomplished in accordance with technical specifications:

(Closed) 456/87048-L2: Loss of Offsite Power Due to Inadvertent Deluge System Actuation Resulting from a Mispositioned Valve. During the performance of a deluge system surveillance, a loss of offsite power occurred. The root cause of this event was a mispositioned auxiliary drain valve. The licensee has concluded that the mispositioning occurred as early as August 20, 1987, during performance of a surveillance between August 20, 1987 and September 11, 1987. Corrective actions taken included revising two fire protection procedures to verify valve positions prior to starting surveillances and to verify deluge system valve positions monthly. Also, corrective actions included a requirement for personnel to obtain shift engineer or station control room engineer permission prior to entry into the deluge system area. The inspector has verified implementation of the corrective actions. This item is considered closed.

(Closed) 456/87057-LL: Turbine Trip and Subsequent Reactor Trip During Monthly Turbine Valve Cycle Surveillance. This event was previously discussed in Inspection Report 456/87044; 457/87045. The cause of this event is still not known. Several successful valve cycle surveillances had been performed subsequent to this event. This item is considered closed. If another event occurs, another review will be performed.

(Closed) 456/87063-L1: Two Inoperable Non-Accessible VA Filter Plenums Due to Misalignment. The subject of this supplement to LER 87063 was previously reviewed in NRC Inspection Report 456/88011; 457/88013, for which a Notice of Violation was issued. This item is considered closed based on the previous review and the content of this supplement.

(Closed) 456/88001-LL: Train A Control Room Radiation Monitoring Inoperable Due to Noisy Pressure Switches. On January 8, 1988, at 9:50 a.m.; on January 11, 1988, at 12:30 a.m.; and on January 12, 1988, at 10:24 a.m.; spikes occurred on control room intake radiation monitors OPR32J and OPR31J. The spikes resulted in the OA train of control room ventilation (VC) switching to the makeup mode. The spikes were determined to be spurious, and the monitors were returned to service. The events resulted from the operating characteristics of the monitors' pressure switches. During modulation of the monitor's flow control valves, the switches emit electrical noise spikes which ultimately are interpreted as radiation-propagated current pulses by the monitor's preamplifier circuitry. Action to prevent recurrence includes adding noise attenuating filters to the pressure switch circuitry to eliminate the false trips. The inspector's review of the event verified that the licensee's actions are adequate. This item is considered closed.

(Closed) 457/88002-LL: Containment Ventilation Isolation From Loss of Pulses to Radiation Monitor 1RT-AR011 Due to Low Background Radiation. At 7:27 a.m. on January 27, 1988, Unit 2 containment area radiation monitor 2AR11J went into an interlock-alert alarm status due to a no-pulses timeout failure. The no-pulses timeout failure indicates that the radiation monitor has detected no radiation in the last five minutes. The alarm generates a containment ventilation isolation, which is an ESF

actuation. The licensee's corrective action was to return the system to normal and to increase the pulse time interval from five to ten minutes as noted in the vendor manual. The inspector has no further concerns. This item is considered closed.

(Closed) 456/88003-LL: Loss of Pulses to Fuel Handling Incident Monitor ORT-AR056 for Unknown Reasons. At 7:10 p.m. on January 13, 1988, radiation monitor ORT-AR056 went into the interlock mode due to a loss of pulses. The train B fuel handling charcoal booster fan started, and the charcoal filter was placed in service. The failure of monitor ORT-AR056 was verified to be spurious, the fuel handling charcoal booster fan was shut down, and the system was returned to normal. The root cause of the event is unknown. The immediate corrective action was to determine that the source of the actuation was spurious in nature and not due to actual radioactivity. There have been no further spurious loss-of-pulse events concerning ORT-AR056. The licensee's actions for this event are adequate. This item is considered closed.

(Closed) 457/88003-LL: Inadvertent Loss of Power to Instrument Bus 212 Resulting in a Reactor Trip Due to Personnel Error. At 10:52 a.m. on January 31, 1988, with Unit 2 in Mode 5, a reactor trip signal was received as a result of removing power from instrument bus 212. The bus is the control power source for source and intermediate range channels. The event was caused by contractor personnel working in the area. The contractors were preparing the inverter cabinet for the bus for painting and inadvertently tripped a breaker on the inverter. Power to bus 212 was restored from its constant voltage transformer, and the painters were told to discontinue work on the inverter cabinet. The inspector has no further concerns with this item; this item is considered closed.

(Closed) 457/88004-LL: Undervoltage Start of 2A Diesel Generator (DG) Due to Operator Error. At 10:27 a.m. on January 29, 1988, the Unit 2 2A DG auto started. The auto start resulted from an undervoltage signal which was generated by the inadvertent removal of the bus 241 potential transformer (PT) fuses by an equipment operator (EO), instead of the intended bus 241 system auxiliary transformer (SAT) feed PT fuses. A contributing cause to this event was a communication problem between the center desk nuclear station operator (NSO) and the EO. The information sheet used, which will be revised, did not reflect the actual equipment field nomenclature. The event has been reviewed with the EO involved, who has received additional training, including a walk-through with a training instructor and a licensed foreman to verify his technical knowledge. There have been no subsequent DG auto starts of this type. The licensee is evaluating this event with emphasis on how to prevent further personnel errors of this type. This item is considered closed.

(Closed) 456/88005-LL: 1A Diesel Generator (DG) Start on a Safety Injection Signal Instead of an Undervoltage Signal During Testing Due to Operator Miscommunication. During the performance of 1BwVS 8.1.1.2.f-13 (a DG sequencing surveillance), on February 4, 1988, due to a miscommunication between two NSOs, the diesel auto started on a safety

injection signal instead of the planned undervoltage signal. The test was successfully completed at 2:12 a.m. on February 4, 1988. The NSOs involved were counseled on the event. The inspector has no further concerns relative to this event. This item is considered closed.

(Closed) 457/88006-LL: Inadvertent Start of the Unit 2 Auxiliary Feedwater (AFW) Pump Due to Personnel Error. The start of the 2A AFW pump was caused by the misuse of the volt-ohmmeter used to collect data for surveillance 2 BwOS 3.2.1-941, "Unit 2 ESFAS Instrumentation Slave Relay Surveillance (Train A Auxiliary Feedwater Actuation, LoLo SG Level -K633)," which was being performed at the time of the pump starts. The surveillance is not intended to start the 2A AFW pump. The operator misuse of the volt-ohmmeter was considered a violation and is discussed in NRC Inspection Report 456/88008; 457/88009. This LER is considered closed.

(Closed) 456/88008-LL: Reactor Coolant System Leakage Due to Broken Relief Valve Disc Pin. On March 25, 1988 and March 27, 1988, with the unit in Mode 4, the Unit 1 NSOs identified that unidentified leakage was in excess of the one gallon per minute (GPM) Technical Specification limit. Licensee investigations identified that the leakage on March 25, 1988 was due to valve 1RH8729A; although locked in the closed position the valve's disc was off its closed seat. The March 27, 1988 leak was due to leaking residual heat removal (RHR) suction relief valves. Nuclear Work Requests were written, and the valves were repaired or recalibrated. The licensee corrective actions were appropriate for the two events. The inspector has no further concerns. This item is considered closed.

(Closed) 457/88011-LL: Reactor Shutdown Required as a Result of Valve 2SI8809B Declared Inoperable Due to Non-Environmentally Qualified Motor. At 6:00 p.m. on June 7, 1988, Westinghouse Electric Company notified Braidwood Station that no environmental qualification (EQ) documents could be found for the motor operator installed on containment isolation valve 2SI8809B. The valve was declared inoperable, and the Limiting Condition for Operation (LCO) of Technical Specification 3.6.3 (containment isolation valve operability) was entered. A plant shutdown was initiated, and the unqualified motor was removed and replaced with one that was EQ qualified. An Unusual Event was declared. The declaration time of the Unusual Event was not considered by the NRC to be in compliance with the licensee's General Station Emergency Plan (GSEP). A Notice of Violation was issued for a violation of the GSEP program. Part of the licensee's corrective action for this event has been to review all remaining open Westinghouse Field Deviation Reports for similar problems. The inspector has determined the licensee's actions to be adequate and has no further concerns. This item is considered closed.

(Closed) 457/88012-LL: Reactor Trip Due to Phase B Overcurrent Protective Relay CO-7 Defective Current Switch. At 12:12 p.m. on June 20, 1988, a shorting switch on Phase B overcurrent protective relay CO-7 on unit auxiliary transformer (UAT) 241-2 was opened in preparation for taking

current readings on the relay. Opening of the shorting switch caused a voltage spike and actuated the instantaneous overcurrent protective relay, which ultimately resulted in a turbine trip/reactor trip. An AFW pump also auto started on LoLo steam generator (SG) level caused by the resultant shrink in the SG level. The root cause of this event was attributed to a defective current test switch on the B phase of the CO-7 overcurrent relay. The defective switch was replaced and tested. The inspector has no further concerns. This item is considered closed.

(Closed) 457/88013-LL: Low Steam Generator Level Results in Reactor Trip Due to Inadequate Procedure Guidance. On June 21, 1988, at 1:07 a.m., a reactor trip occurred due to a Lo-Lo steam generator level caused by insufficient feedwater (FW) flow. The low FW flow was due to an out-of-service (OOS) that isolated FW flow to the SG. On June 20, 1988, at 11:45 p.m., the Station Control Room Engineer (SCRE) had authorized clearance of the OOS, but a high priority was not given to its clearance and to establishing a normal FW lineup. Consequently, when the reactor startup on June 21, 1988 was at the point of adding heat, the insufficient flow caused the reactor trip. Personnel performing the reactor startup were not aware of the FW system lineup. The licensee's corrective actions to prevent recurrence are to: (1) revise procedures to verify proper FW system lineup prior to increasing power from the point of adding heat; (2) review the event with the personnel involved and emphasize the need for awareness of system configuration; and (3) issue a memo to the operating staff describing the event and actions to prevent recurrence. The inspector has no further concerns. This item is considered closed.

(Closed) 457/88014-LL: Reactor Trip Due to Low Water Level Caused by Erratic Operation of Main Water (sic) Regulating Valve. On June 22, 1988, at 12:29 a.m., a reactor trip occurred due to a Lo-Lo steam generator level. The trip was due to a feedwater transient initiated during a normal switchover from the feedwater regulating bypass valves (FWRBPVs) to the main feedwater regulating valves (MFWRVs) for SG level control. During the transfer from the FWRBPV to the MFWRV for the 2B SG, an MFWRV malfunction caused the 2B SG level to reach its Hi-Hi setpoint, which actuated a turbine trip, feedwater isolation, and feed pump trip. Approximately 18 seconds later, the 2D SG level reached the Lo-Lo level setpoint, which resulted in a reactor trip. The root cause of the event was the erratic operation of the 2B MFWRV. Plant conditions were restored to a normal status by 12:22 a.m. The 2B MFWRV was repaired and returned to service. The inspector's review of this event identified that the licensee's actions were prompt and adequate in nature. This item is considered closed.

(Closed) 457/88015-LL: Feedwater Isolation Due to Hi-Hi Steam Generator Level Caused by Steam Generator Sensitivity. On June 26, 1988, at 4:06 a.m., a feedwater isolation and turbine-driven FW pump trip occurred on Hi-Hi SG water level. The cause of the event was the level control sensitivity of the Model D-5 Westinghouse SGs and the operator's relative inexperience with the D-5 SGs. The operator's immediate corrective actions were to reset the FW isolation and to restart the

feed pump. This event will be included in operator required reading to heighten all operators' awareness of the differences between the Model D-4 (Unit 1 SGs) and Model D-5 (Unit 2 SGs) level control sensitivities. The inspector has no further concerns with this event.

(Closed) 457/88016-LL: Unit 2 Reactor Trip on Lo-Lo 2B Steam Generator Level. On June 24, 1988, at 12:21 p.m., a reactor trip occurred due to a Lo-Lo level in the 2B SG. The cause of the trip was a failed open heater drain tank (HDT) makeup valve, which caused the condensate booster (CB) pump discharge pressure to decrease. The CB pump discharge pressure decrease resulted in a loss of feedwater flow and subsequent decreasing SG levels. The trip occurred about one minute after the loss of FW flow. The immediate corrective actions were to recover SG levels and to establish stable conditions. The HDT makeup valve has been repaired. The licensee performed an FW system walkdown to ensure that no more abnormalities existed in the system. The inspector has no further concerns. This LER is considered closed.

In addition to the foregoing, the inspector reviewed the licensee's Deviation Reports (DVRs) generated during the inspection period. This was done in an effort to monitor the conditions related to plant or personnel performance, potential trends, etc. DVRs were also reviewed to ensure that they were generated appropriately and dispositioned in a manner consistent with the applicable procedures and the QA manual.

No violations or deviations were identified.

4. Regional Request

Overtime By Personnel Performing Safety-Related Activities

By telephone request, Region III requested information on overtime worked by station personnel involved in safety-related activities, how the guidelines prescribed in Generic Letter 82-12 were being applied, and the number of occasions where the guidelines were exceeded. Generic Letter 82-12 guidelines are required by Technical Specification 6.2.2.e and implemented by Braidwood Administrative Procedures BwAP 100-7, "Overtime Guidelines for Personnel That Perform Safety-Related Functions"; BwAP 100-7A1, "Overtime Deviation Determination"; and BwAP 100-7A2, "Overtime Deviation Authorization Record Keeping Requirements."

Licensee personnel provided the entire package of Overtime Authorization forms since January 1, 1988, for review by the Senior Resident Inspector. In addition, overtime summaries and charts were provided. These were reviewed by the Senior Resident Inspector and a summary was provided to the Region III requestor.

Drought and Heat Wave Effect

During the inspection period, considerable interest was shown by NRC Headquarters and Region III in the drought's impact on the Braidwood Lake (heat sink) and on station operation.

Through observations by the inspectors and information provided by licensee personnel, lake status reports were submitted weekly.

Throughout the inspection period, operation of the station was not affected by lake conditions. The Kankakee River (the normal makeup source) went below the minimum flow for makeup of 442 cubic feet per second on several occasions. Intermittently, the makeup pumps could be run. When pumping from the river was insufficient to keep up with evaporation and normal losses, the licensee chose to take makeup water from nearby licensee-owned strip mine lakes. This was done after Commonwealth Edison signed an agreement with local officials to provide makeup water if local wells are affected and drilled 22 monitoring wells. At the end of the inspection period, local rainfall had created sufficient river flow for two makeup pumps to be run from the Kankakee River, and the licensee continued to supplement cooling lake makeup with water from the strip mine lakes. The licensee plans to pump only two-thirds of the water from the strip mine lakes and has a plan for restoration of the strip mine lakes to preserve wildlife habitat.

In addition to the foregoing, the licensee has established a contingency plan for monitoring silt and sediment pickup and deposition and for monitoring selected heat exchangers should the cooling lake level drop to levels low enough for intake to be a problem.

5. Startup Test Observation (72302)

The inspectors witnessed performance of portions of the following Unit 2 startup test procedure in order to verify that testing was conducted in accordance with the operating license and procedural requirements, that test data was properly recorded, and that the performance of licensee personnel conducting the tests demonstrated an understanding of assigned duties and responsibilities:

BWSU IC-72C Incore Moveable Detector and Thermocouple Mapping at Power (Quarter Core)

No violations or deviations were identified.

6. Operational Safety Verification (71707)

The inspectors conducted routine plant tours during the inspection period to make an independent assessment of equipment conditions, plant conditions, security, fire protection, general personnel safety, housekeeping, and adherence to applicable regulatory requirements. During the tours, the inspectors reviewed various logs and daily orders, interviewed personnel, attended shift briefings and plan of the day meetings, and independently determined equipment status. During the shift changes, the inspectors observed operator, shift control room engineer, and shift engineer turnovers and panel walkdowns.

These reviews and observations were conducted to verify that facility operations were in conformance with the requirements established under technical specifications, 10 CFR, and administrative procedures.

No violations or deviations were identified.

7. Radiological Protection (71709)

The inspectors selected portions of the licensee's radiological program to verify conformance with facility policies, procedures, and regulatory requirements. Observed aspects included the health physics managers' awareness of any unusual conditions or challenges, the implementation of the ALARA program, the use of Radiological Work Permits (RWPs), the control and monitoring of radiation exposures, including work in high radiation areas if applicable, and the control of radioactive material.

No violations or deviations were identified.

8. Engineered Safety Feature (ESF) Systems (71710)

During the inspection, the inspectors selected accessible portions of several ESF systems to verify their status. Consideration was given to the plant mode, applicable Technical Specifications, Limiting Conditions for Operation Action Requirements (LCOARs), and other applicable requirements.

Various observations, where applicable, were made of hangers and supports; housekeeping; whether freeze protection, if required, was installed and operational; valve positions and conditions; potential ignition sources; major component labeling, lubrication, cooling, etc.; interior conditions of electrical breakers and control panels; whether instrumentation was properly installed and functioning and significant process parameter values were consistent with expected values; whether instrumentation was calibrated; whether necessary support systems were operational; and whether locally and remotely indicated breaker and valve positions agreed.

During the inspection, the following ESF components were walked down:

Unit 0

Component Cooling Water System

Unit 1

Batteries 111 and 112, including battery chargers

Bus 141, 142 switchgear

Inverters 111 and 113

Component Cooling Water System

1A Essential Service Water System

1B Essential Service Water System

Unit 2

Bus 241, 242 switchgear

Inverters 211, 213

2B RHR train

Component Cooling Water System

2A Essential Service Water System

2B Essential Service Water System

During plant tours and ESF system walkdowns, the inspectors noted an excessive accumulation of oil and water in the foundations of the 1B and 2B essential service water pumps and damaged bent cooling fins on the associated room coolers. The licensee cleaned up the oil and water in the pump foundations and noted the oil and water leakage in the daily orders to all operators. In addition, work requests were written to straighten the cooler fins and to repair the oil and water leaks.

No violations or deviations were identified.

9. Physical Security (71881)

At various times throughout the inspection period, the inspectors monitored compliance with the Physical Security Plan (PSP). Selected observations were made of manning levels and collateral duties of assigned personnel; access control equipment and processes, such as x-ray machines, metal detectors, explosive detectors, and other search mechanisms; whether protected area (PA) and vital area (VA) barriers were properly maintained; whether procedures were properly followed; whether compensatory measures were appropriately used when required; whether persons in the PA and VA were properly badged and escorted if required; whether various detection/assessment aids, such as fences and illumination of the PA, were operable; and whether TV monitors had sufficient clarity and resolution.

No violations or deviations were identified.

10. Monthly Maintenance Observation (62703)

Station maintenance activities affecting the safety-related systems and components listed below were observed/reviewed to ascertain that they were conducted in accordance with approved procedures, regulatory guides and industry codes or standards, and in conformance with Technical Specifications.

The following items were considered during this review: the limiting conditions for operation were met while components or systems were removed from and restored to service; approvals were obtained prior to initiating the work; activities were accomplished using approved procedures and were inspected as applicable; functional testing and/or calibrations were performed prior to returning components or systems to service; quality control records were maintained; activities were accomplished by qualified personnel; parts and materials used were properly certified; radiological controls were implemented; and fire prevention controls were implemented. Work requests were reviewed to determine the status of outstanding jobs and to assure that priority is assigned to safety-related equipment maintenance which may affect system performance.

Maintenance activities on the following equipment were observed and reviewed:

Unit 0

OB VC chiller seal replacement

Unit 1

Unit 2

2A Diesel Generator Troubleshooting Incomplete Sequencer Trip

2A Main Feedwater Pump Electric Aux Oil Pump Coupling Repair

The inspectors monitored the licensee's work in progress and verified that it was being performed in accordance with proper procedures and approved work packages, that 10 CFR 50.59 and other applicable drawing updates were made and/or planned, and that operator training was conducted in a reasonable period of time.

No violations or deviations were identified.

11. Monthly Surveillance Observation (61725)

The inspectors observed surveillance testing required by Technical Specifications during the inspection period and verified that testing was performed in accordance with adequate procedures, that test instrumentation was calibrated, that limiting conditions for operation were met, that removal and restoration of the affected components were accomplished, that results conformed with Technical Specifications and procedure requirements and were reviewed by personnel other than the individual directing the test, and that any deficiencies identified during the testing were properly reviewed and resolved by appropriate management personnel.

The inspectors also witnessed portions of the following test activities:

Unit 1

1B Diesel Driven Auxiliary Feed Pump Monthly Surveillance

ASME Surveillance Requirements for Diesel Driven Auxiliary Feed Pump

B Train Auxiliary Feed Valves

Unit 2

2A Emergency Diesel Generator Monthly Surveillance

2B Emergency Diesel Generator Monthly Surveillance

No violations or deviations were identified.

12. Training Effectiveness (41400, 41701)

The effectiveness of training programs for licensed and non-licensed personnel was reviewed by the inspectors during the witnessing of the licensee's performance of routine surveillance, maintenance, and operational activities and during the review of the licensee's response to events which occurred during the inspection period. Personnel appeared to be knowledgeable of the tasks being performed, and nothing was observed which indicated any ineffectiveness of training.

No violations or deviations were identified.

13. Report Review

During the inspection period, the inspector reviewed the licensee's Monthly Operating Reports for June and July 1988. The inspector confirmed that the information provided met the requirements of Technical Specification 6.9.1.8 and Regulatory Guide 1.16.

The inspector also reviewed the licensee's Monthly Plant Status Reports for June and July 1988, the Radioactive Effluent Report for January through June 1988, and the minutes of the "Braidwood Corporate Overview Meeting" held on August 17, 1988.

No violations or deviations were identified.

14. Licensee Actions in Response to Substance Abuse

On July 24, 1988, the licensee informed the Resident Inspector and the Chief of Reactor Projects Section 1A of evidence of offsite use of a controlled substance (marijuana) by an employee with unrestricted site access. The individual was a Senior Reactor Operator licensed supervisor. The individual's site access was removed in accordance with licensee procedures, the individual was placed under medical evaluation, and a review of the individual's work record was conducted. The work

record review revealed no inconsistencies. Following the medical evaluation, the individual was returned to work; however, he will not be allowed to perform licensed duties for a period of 12 months. During that time, the individual will be periodically evaluated for further substance abuse and closely monitored by the licensee management and the resident inspectors, and he will maintain license qualification. After that time, following favorable evaluation, the individual may be permitted to return to licensed duties.

15. Meetings and Other Activities (30702)

Site Visits by NRC Staff and Plant Status Meeting

A meeting was held on July 26, 1988 between the Station Manager, the Region III Division of Reactor Projects 1A Section Chief, and members of each of their staffs. The purpose of the meeting was for the licensee to provide an update on the status of Units 1 and 2. The subjects discussed were deviations, events and personnel errors compared with Byron's at similar stages of plant life, reactor trip analysis, INPO key performance indicators, the effect of the drought and the Kankakee River as a source of makeup to the cooling lake, and the moveable incore detector blockage problem compared with other similar plants.

16. Exit Interview (30703)

The inspectors met with the licensee representatives denoted in Paragraph 1 during the inspection period and at the conclusion of the inspection on August 24, 1988. The inspectors summarized the scope and results of the inspection and discussed the likely content of this inspection report. The licensee acknowledged the information and did not indicate that any of the information disclosed during the inspection could be considered proprietary in nature.