

January 24, 2001

Mr. Oliver D. Kingsley
President, Nuclear Generation Group
Commonwealth Edison Company
ATTN: Regulatory Services
Executive Towers West III
1400 Opus Place, Suite 500
Downers Grove, IL 60515

SUBJECT: BRAIDWOOD - NRC INSPECTION REPORT 50-456/00-18(DRP); 50-457/00-18(DRP)

Dear Mr. Kingsley:

On December 31, 2000, the NRC completed an inspection at your Braidwood Units 1 and 2. The enclosed report documents the inspection findings which were discussed with Mr. Tulon and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations, and with the conditions of your license. Within these areas the inspection consisted of a selective examination of procedures and representative records, observations of activities, and interviews with personnel. Specifically, this inspection focused on resident inspection activities.

Based on the results of this inspection, no findings were identified.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available **electronically** for public inspection in the NRC Public Document Room **or** from the *Publicly Available Records (PARS) component of NRC's document system (ADAMS)*. ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/NRC/ADAMS/index.html> (the Public Electronic Reading Room).

O. Kingsley

-2-

We will gladly discuss any questions you have concerning this inspection.

Sincerely,

Original signed by
Michael J. Jordan

Michael J. Jordan, Chief
Reactor Projects Branch 3

Docket Nos. 50-456; 50-457
License Nos. NPF-72; NPF-77

Enclosure: Inspection Report 50-456/00-18(DRP);
50-457/00-18(DRP)

cc w/encl: D. Helwig, Senior Vice President, Nuclear Services
C. Crane, Senior Vice President, Nuclear Operations
H. Stanley, Vice President, Nuclear Operations
R. Krich, Vice President, Regulatory Services
DCD - Licensing
T. Tulon, Site Vice President
K. Schwartz, Station Manager
T. Simpkin, Regulatory Assurance Supervisor
M. Aguilar, Assistant Attorney General
State Liaison Officer
Chairman, Illinois Commerce Commission

O. Kingsley

-2-

We will gladly discuss any questions you have concerning this inspection.

Sincerely,

Michael J. Jordan, Chief
Reactor Projects Branch 3

Docket Nos. 50-456; 50-457
License Nos. NPF-72; NPF-77

Enclosure: Inspection Report 50-456/00-18(DRP);
50-457/00-18(DRP)

cc w/encl: D. Helwig, Senior Vice President, Nuclear Services
C. Crane, Senior Vice President, Nuclear Operations
H. Stanley, Vice President, Nuclear Operations
R. Krich, Vice President, Regulatory Services
DCD - Licensing
T. Tulon, Site Vice President
K. Schwartz, Station Manager
T. Simpkin, Regulatory Assurance Supervisor
M. Aguilar, Assistant Attorney General
State Liaison Officer
Chairman, Illinois Commerce Commission

ADAMS Distribution:

DTF
GFD (Project Mgr.)
J. Caldwell, RIII
G. Grant, RIII
B. Clayton, RIII
SRI Braidwood
C. Ariano (hard copy)
DRP
DRSIII
PLB1
JRK1
BAH3

DOCUMENT NAME: G:\brai\bra 00-18.wpd

To receive a copy of this document, indicate in the box: "C" = Copy without enclosure "E" = Copy with enclosure "N" = No copy

OFFICE	RIII	RIII		
NAME	Tongue: dtp	Jordan		
DATE	01/ /01	01/ /01		

OFFICIAL RECORD COPY

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos: 50-456; 50-457
License Nos: NPF-72; NPF-77

Report No: 50-456/00-18(DRP); 50-457/00-18(DRP)

Licensee: Commonwealth Edison Company (ComEd)

Facility: Braidwood Nuclear Power Station, Units 1 and 2

Location: 35100 S. Route 53
Suite 84
Braceville, IL 60407-9617

Dates: November 18 through December 31, 2000

Inspectors: C. Phillips, Senior Resident Inspector
N. Shah, Resident Inspector
S. Sheldon, Regional Inspectors
D. Chyu, Regional Inspectors
J. Roman, Illinois Department of Nuclear Safety

Approved by: Michael J. Jordan, Chief
Reactor Projects Branch 3
Division of Reactor Projects

NRC's REVISED REACTOR OVERSIGHT PROCESS

The federal Nuclear Regulatory Commission (NRC) recently revamped its inspection, assessment, and enforcement programs for commercial nuclear power plants. The new process takes into account improvements in the performance of the nuclear industry over the past 25 years and improved approaches of inspecting and assessing safety performance at NRC licensed plants.

The new process monitors licensee performance in three broad areas (called strategic performance areas): reactor safety (avoiding accidents and reducing the consequences of accidents if they occur), radiation safety (protecting plant employees and the public during routine operations), and safeguards (protecting the plant against sabotage or other security threats). The process focuses on licensee performance within each of seven cornerstones of safety in the three areas:

Reactor Safety	Radiation Safety	Safeguards
<ul style="list-style-type: none">● Initiating Events● Mitigating Systems● Barrier Integrity● Emergency Preparedness	<ul style="list-style-type: none">● Occupational● Public	<ul style="list-style-type: none">● Physical Protection

To monitor these seven cornerstones of safety, the NRC uses two processes that generate information about the safety significance of plant operations: inspections and performance indicators. Inspection findings will be evaluated according to their potential significance for safety, using the Significance Determination Process, and assigned colors of GREEN, WHITE, YELLOW or RED. GREEN findings are indicative of issues that, while they may not be desirable, represent very low safety significance. WHITE findings indicate issues that are of low to moderate safety significance. YELLOW findings are issues that are of substantial safety significance. RED findings represent issues that are of high safety significance with a significant reduction in safety margin.

Performance indicator data will be compared to established criteria for measuring licensee performance in terms of potential safety. Based on prescribed thresholds, the indicators will be classified by color representing varying levels of performance and incremental degradation in safety: GREEN, WHITE, YELLOW, and RED. GREEN indicators represent performance at a level requiring no additional NRC oversight beyond the baseline inspections. WHITE corresponds to performance that may result in increased NRC oversight. YELLOW represents performance that minimally reduces safety margin and requires even more NRC oversight. And RED indicates performance that represents a significant reduction in safety margin but still provides adequate protection to public health and safety.

The assessment process integrates performance indicators and inspection so the agency can reach objective conclusions regarding overall plant performance. The agency will use an Action Matrix to determine in a systematic, predictable manner which regulatory actions should be taken based on a licensee's performance. The NRC's actions in response to the significance (as represented by the color) of issues will be the same for performance indicators as for inspection findings. As a licensee's safety performance degrades, the NRC will take more and increasingly significant action, which can include shutting down a plant, as described in the Action Matrix.

More information can be found at: <http://www.nrc.gov/NRR/OVERSIGHT/index.html>.

SUMMARY OF FINDINGS

IR 05000456-00-18, 05000457-00-18; on 11/18-12/31/00; Commonwealth Edison; Braidwood Nuclear Power Station; Units 1 & 2. Resident Operations Report.

The inspection was conducted by resident and regional inspectors.

A. Inspector Identified Findings

There were no findings identified.

B. Licensee Identified Violations

Violations of very low significance which were identified by the licensee have been reviewed by the inspector. Corrective actions taken or planned by the licensee appear reasonable. These violations are listed in Section 40A7 of this report.

Report Details

Plant Status

Both units operated at full power throughout the inspection period.

3. REACTOR SAFETY

Cornerstone: Initiating Events, Mitigating Systems, and Barriers.

1R04 Equipment Alignment

.1 Equipment Alignment Verification of the Unit "0" Component Cooling Water (CC) Pump and Heat Exchanger To Unit 2

a. Inspection Scope

The inspectors observed the system alignment of the Unit 0 CC pump and heat exchanger to Unit 2 while the 2A CC pump was out-of-service for planned maintenance. The inspectors reviewed the following to determine the correct system alignment:

- Braidwood Operating Procedure (BwOP) CC-10, "Alignment Of The "0" CC Pump To A Unit," Revision 13;
- BwOP CC-12, "Alignment Of The "0" Heat Exchanger To A Unit," Revision 6E13; and
- Station Drawing M-66, dated April 11, 1997, "Diagram of Component Cooling, Units 1 and 2, Sheets 3A and 3B."

The inspectors performed a walkdown of the accessible portions of the system and reviewed the system lineup and selected system operating parameters (i.e., pump and bearing lube oil levels, room temperature, electrical breaker position, etc).

In addition, the inspectors reviewed selected issues that the licensee entered into its corrective action program to verify that identified problems were being entered into the program with the appropriate characterization and significance. The inspectors also reviewed the licensee's corrective actions for equipment alignment issues documented in the following condition reports (CRs):

- 2000-02744, "Inadvertent Closure of IA [instrument air] to 1CV8152 Results In Loss of Unit 1 Letdown Flow";
- 2000-00286, "Difficulty Identifying What Breaker to Put Into 1A Containment Spray Pump Cubicle";

- 2000-00653, "Process and Instrumentation Diagram (P&ID) Does Not Match Plant";
- 2000-03532, "Loss of Refueling Water Storage Tank Level"; and
- 2000-03759, "Missed Limiting Condition for Operation (LCO) Entry for Unit 2A Containment Spray Pump."

b. Findings

There were no significant findings identified.

.2 Semi-Annual Complete System Walkdown (Unit 2 Essential Service Water System (SX))

a. Inspection Scope

The inspectors observed the system alignment of the Unit 2 SX system. The inspectors reviewed the following to determine the correct system alignment:

- BwOP SX-M2, "Operating Mechanical Lineup Unit 2," Revision 15;
- BwOP SX-E2, "Operating Electrical Lineup Unit 2," Revision 7;
- Station Drawing M-126, dated November 2, 1999, "Diagram of Essential Service Water Unit 2," Sheets 1, 2, and 3; and
- Updated Final Safety Analysis Report Section 9.2.1.2.

The inspectors performed a walkdown of the accessible portions of the system and reviewed the system lineup and selected system operating parameters (i.e., pump and bearing lube oil levels, room temperature, electrical breaker position, etc).

In addition, the inspectors reviewed selected issues that the licensee entered into its corrective action program to verify that identified problems were being entered into the program with the appropriate characterization and significance. The inspectors also reviewed the licensee's corrective actions for equipment alignment issues documented in the following CRs:

- 2000-03843, "Minimum Wall Thickness On Line 2SXB1AB-3"; and
- 2000-00446, "2PDS-SX022 Strainer 2B Switch Failed."

b. Findings

There were no significant findings identified.

1R05 Fire Protection

a. Inspection Scope

The inspectors evaluated the licensee's fire protection controls for the following areas:

- Auxiliary building 346' elevation common area (fire zone 11.1A-0);
- Auxiliary building 364' elevation common area (fire zone 11.3-0);
- 1A centrifugal charging pump room (fire zone 11.3D1);
- 2A centrifugal charging pump room (fire zone 11.3D2);
- 2A safety injection pump room (fire zone 11.3A-2) room; and
- B SX pump room (fire zone 11.1B-0);

These areas were selected, because they had a higher associated fire induced core damage frequency. Specifically, the inspectors performed a walkdown of the areas to observe conditions related to the control of transient combustibles and ignition sources; the material condition, operational lineup, and operational effectiveness of fire protection systems, equipment and features; and the material condition and operational status of fire barriers. The inspectors compared the areas (including associated fire protection and mitigation equipment) to what was described for those areas in the Braidwood Fire Protection Report.

The following documents were reviewed during this inspection:

- Braidwood Fire Protection Report, dated December 1988, Sections 2.3.11.2, 2.3.11.3, 2.3.11.12, 2.3.11.16, 2.3.11.20, 2.3.11.21, 2.3.11.22, 2.3.11.24, 2.3.2.34, 2.4.2.15 and 2.4.2.16;
- 2000-04432, "Fire Door Louvre Damaged," written based on inspector observations during a plant status walkdown; and
- Braidwood Administrative Procedure, BwAP 1100-10, "Control and Use of Flammable and Combustible, Liquids and Aerosols," Revision 3.

In addition, the inspectors reviewed selected issues that the licensee entered into its corrective action program to verify that identified problems were being entered into the program with the appropriate characterization and significance. The inspectors also reviewed the licensee's corrective actions for equipment alignment issues documented in the following CR's.

- 2000-03241, "Housekeeping Deficiency Identified By NRC"; and
- 2000-00574, "Wrong Lubricant Used in Diesel Driven Fire Pump."

c. Findings

There were no significant findings identified.

1R11 Licensed Operator Requalification Program

a. Inspection Scope

The inspectors reviewed the implementation of the licensee's licensed operator requalification program by observing simulator training conducted on November 27, 2000. Specifically, the inspectors observed operator response to a simulated event involving a steam generator tube rupture coincident with a loss of coolant accident, as described in licensee Scenario 0064, dated November 27, 2000.

The inspectors observed that the training was monitored by the licensee's staff. The inspectors also observed how operations responded to alarms, communicated plant conditions, and made emergency declarations. The inspectors also selectively compared the simulator equipment to actual control room equipment.

b. Findings

There were no significant findings identified.

1R12 Maintenance Rule Implementation

Maintenance Rule Implementation of Deficiencies Associated With the Unit 1 CC System

a. Inspection Scope

The inspectors reviewed the licensee's implementation of the maintenance rule, 10 CFR 50.65, as it pertained to identified performance problems with the following systems:

- Unit 1 CC;
- Unit 1 chemical and volume control (CV);
- Units 1 and 2 switch yard;
- Units 1 and 2 auxiliary power; and
- 1B auxiliary feedwater (AF).

The inspectors interviewed the station's maintenance rule coordinator and reviewed the following documents:

- 2000-01373, "Failure of As-Found Inspection of 1CC9495C";

- 1999-00167, "1A CC Pump Outboard Pump Bearing Constant Level Oiler Behavior";
- 2000-01407, "1CC9426 Relief Valve Failed As-Found Setpoint Acceptance Criteria";
- Maintenance history for the 1A and 1B CC pumps and Unit 1 CC heat exchanger;
- Expert Panel Meeting Minutes dated May 22, June 19, July 10, July 24, August 21, November 13, and November 27 2000;
- BwOP CV-M1, "Operating Mechanical Lineup Unit 1," Revision 13;
- Operability Evaluation No. 99-029, dated December 22, 1999, regarding excessive leakage from inboard seal of the Unit 1B charging pump;
- 2000-02744, "Inadvertent Closure of Instrument Air to 1CV8152 Results in Loss of Unit 1 Letdown Flow";
- 2000-04461, "1A CV Pump Outboard Seal Leakage Increase From 140 to 185 Drops Per Minute";
- 2000-02745, "1CV8160 Declared Inoperable";
- 2000-01389, "Motor-Operated Valve 1CV112E Actuator Condition Degraded";
- 2000-00176, "Degraded Fuse Clip";
- 2000-00203, "480 Volt MCC [motor control cabinet] Breaker - Starter Aux Contact Improperly Installed";
- 2000-01245, "Breaker Failed To Charge Springs";
- 1999-02112, "Failure of 2D High Speed Breaker to Close on Demand";
- 1999-03518, "6.9 KV [kilovolt] Breaker Closing Spring Failed to Discharge";
- 1999-01542, "2AF005H Did Not Obtain Full Flow During Auxiliary Feedwater Modification Test E20-2-97-312-1";
- 1999-03082, "AF System Exceeds Maintenance Rule AF1 Reliability Criteria";
- 2000-02975, "Loss of Line 0104";
- 2000-01159, "Loss of Construction Power"; and
- 2000-04477, "Confusing Maintenance Rule Monitoring," which was generated as a result of this inspection.

In addition, the inspectors reviewed selected issues that the licensee entered into its corrective action program to verify that identified problems were being entered into the program with the appropriate characterization and significance. The inspectors also reviewed the licensee's corrective actions for equipment alignment issues documented in the following CRs.

- 2000-03699, "Maintenance Rule Monthly Evaluations Found To Contain Inaccuracies Or Not To Be Complete"; and
- 2000-04681, "Maintenance Rule Functional Failure not Identified by Station Personnel."

b. Findings

There were no significant findings identified.

1R13 Maintenance Risk Assessments And Emergent Work Control

a. Inspection Scope

The inspectors reviewed the licensee's assessment and management of plant risk for planned maintenance activities on the following components:

- 2CC9502B, CC throttle valve for the Unit 2 spent fuel pool heat exchanger;
- 2A CC train; and
- 2 B AF pump room fire suppression testing.

The inspectors selected these maintenance activities because they involved systems that were risk significant in the licensee's risk analysis.

During this inspection, the inspectors reviewed redundant train equipment key safety functions, the proper use of the on-line risk monitoring software by the licensee, and the licensee's implementation of actions to minimize plant risk. The inspectors also reviewed the licensee's maintenance activity planning to minimize the duration that the plant was subject to the increased risk and observed that plant personnel were informed of the increased risk. The inspectors attended shift briefings and daily status meetings to monitor licensee actions to maintain a heightened level of awareness of the plant risk status among plant personnel. The inspectors also reviewed the following documents:

- Station Drawing M-50 (Sheet No. 3), "Diagram of Diesel Fuel Oil Units 1 and 2," dated November 3, 1998;
- Plant Operating Review Committee Meeting Minutes from November 30, 2000, meeting Number 00-077;
- BwOP CC-10, "Alignment of the 'O' CC Pump to a Unit," Revision 13; and

- BwOP CC-E2, "Electrical Lineup Unit 2 Operating," Revision 3E1.

In addition, the inspectors reviewed selected issues that the licensee entered into its corrective action program to verify that identified problems were being entered into the program with the appropriate characterization and significance. The inspectors also reviewed the licensee's corrective actions for equipment alignment issues documented in the following CRs:

- 2000-002848, "PSA [probabilistic safety analysis] Evaluation Not Performed in a Timely Manner";
- 2000-03329, "Scaffold Erected in 2B Diesel Generator Room Does Not Appear to be Erected to MA-AA-AD-6-00024 Requirement"; and
- 2000-01429, "Unit 2 LCO Entry Due to Unit 1 Outage Activity Not Evaluated Before Entry."

b. Findings

There were no significant findings identified.

1R15 Operability Evaluations

Evaluation of Operability For The and Operability of 231X Switchgear

a. Inspection Scope

The inspectors reviewed and evaluated Operability Determination 00-007, "Discoloration of The Control Circuit Wiring In Motor Control Center 231X1" and CR 2000-04554, "480 Volt ESF Switchgear 231X Breakers Found in Removed Position." In addition, the inspectors interviewed design and system engineering personnel.

In addition, the inspectors reviewed selected issues that the licensee entered into its corrective action program to verify that identified problems were being entered into the program with the appropriate characterization and significance. The inspectors also reviewed the licensee's corrective actions for issues documented in the following CR:

- 2000-03215, "Inadequate Design Review of the SX Discharge Piping DCP [design change package]."

b. Findings

There were no significant findings identified.

1R19 Post Maintenance Testing

a. Inspection Scope

The inspectors evaluated the following licensee's post maintenance testing activities for maintenance conducted on the:

- 111 instrument inverter,
- 2CC9502B valve, and
- 2A CC train.

These activities included the following work requests:

- Work Request 990231025, "Troubleshoot Possible Multiple Problems Per Engineering Direction";
- Work Request 990235203-01, "American Society of Mechanical Engineers Surveillance Requirements for CC Pump 2CC01PA";
- Work Request 990005038-01, "2A CC Pump Coupling Inspection and Grease Change-Out";
- Work Request 990153576-01, "Inspect 2A CC Pump Impeller for Cavitation Damage";
- 2BwVSR 5.5.8.CC.1, "American Society of Mechanical Engineers Surveillance Requirements for CC Pump 2CC01PA and Discharge Check Valves," Revision 0;
- BwMS 3150-029, "Component Cooling Pump Coupling Inspection and Grease Change-Out," Revision 2E1;
- BwMP 3100-026, "Replacement of Mechanical Seals in the Component Cooling Pumps," Revision 2; and
- Work Request 990233296-02, "Spent Fuel Pit HX [heat exchanger] 2 CC Outlet Install/Remove Freeze To Support Task - 01."

The inspectors selected these post maintenance testing activities because they involved systems which were significant in the licensee's risk analysis. The inspectors reviewed the scope of the work performed and evaluated the adequacy of the specified post maintenance testing. The inspectors verified that the post maintenance tests were performed in accordance with approved procedures, that the procedures clearly stated acceptance criteria, and that the acceptance criteria were met. During these inspection activities, the inspectors interviewed operations and engineering department personnel and reviewed the completed post maintenance testing documentation.

The inspectors reviewed selected issues that the licensee entered into its corrective action program to verify that identified problems were being entered into the program with the appropriate characterization and significance.

- 2000-04673, "Rework, 2CC01PA Breakdown Bushing Installed Incorrectly";
- 2000-04687, "2CC01PA Rework"; and
- 2000-04675, "Damage to 2A CC Pump Casing Caused by Incorrect Maintenance Practices."

In addition, the inspectors reviewed selected issues that the licensee entered into its corrective action program to verify that identified problems were being entered into the program with the appropriate characterization and significance. The inspectors also reviewed the licensee's corrective actions for issues documented in the following CRs:

- 2000-03481, "Cannot Locate AF Pump Run Data Sheet Following Pump Run on August 23";
- 2000-03818, "Technical Specification Post-Maintenance Tests Not Requested Where Required"; and
- 2000-02016, "Another Work Request Is at Status 54 (Post-Maintenance Test Failed) with No New Work Request Created for It."

b. Findings

There were no significant findings identified.

1R22 Surveillance Testing

a. Inspection Scope

The inspectors evaluated the surveillance testing activities listed below. The inspectors witnessed surveillance testing, reviewed test data and determined if the associated structures, systems, and components met the Technical Specification requirements; met the Updated Final Safety Analysis Report requirements, and licensee procedural requirements. The inspectors also determined if in-service testing methods and acceptance criteria were in accordance with American Society of Mechanical Engineering Code, Section XI, and were consistent with the station's design basis.

Specifically, the inspectors reviewed the following documents:

- Braidwood Engineering Surveillance Procedure, 1BwVSR 3.3.1.10-2, "Unit 1 Reactor Coolant System Temperature Instrumentation Alignment," Revision 1; and
- 2BwVSR 3.3.1.10-2, "Unit 2 Reactor Coolant System Temperature Instrumentation Alignment," Revision 2.

In addition, the inspectors reviewed selected issues that the licensee entered into its corrective action program to verify that identified problems were being entered into the program with the appropriate characterization and significance. The inspectors reviewed the corrective actions for surveillance testing documented in the following CRs:

- 2000-03567, "Unplanned Entry into Technical Requirements Manual 3.3.1 Due to 1FI-AF014a Main Control Room Flow Indicator Pegged Low"; and
- 2000-03754, "Unit 1 Anticipated Transient Without a Scram Surveillance Failed."

b. Findings

There were no significant findings identified.

1R23 Temporary Plant Modifications

a. Inspection Scope

The inspectors reviewed the following:

- Temporary plant modification Package 00-2-010, "N2 Line to H2 Line Cross-Tie";
- Safety Evaluation BRW-SESV-2000-1135;
- BwOP CV-12, "Establishing A Hydrogen Blanket On The VCT," Revision 13;
- CC-AA-112, "Temporary Modifications," Revision 2; and
- Work Request 990228165, "VCT Nitrogen Blanket Pressure Controller."

The inspectors observed the physical installation of the temporary modification and interviewed licensed operations personnel regarding the temporary modification installation.

b. Findings

There were no significant findings identified.

Cornerstone: Emergency Preparedness

1EP6 Drill Evaluation

a. Inspection Scope

The inspectors observed a licensee emergency response exercise regarding a simulated steam generator tube rupture event. This exercise was conducted on November 27, 2000. Specifically, the inspectors determined whether the licensee critique adequately evacuated emergency classification, notification of offsite authorities,

and protective action recommendation development activities during the exercise. Additionally, the inspectors determined whether the exercise results were properly counted in the Performance Indicator for emergency preparedness.

The following documents were reviewed during this inspection:

- Generating Station Emergency Planning table top exercise Scenario 0064, "All Steam Generators Faulted/CA-2.1 with 1A Steam Generator Tube Rupture," Revision 0;
- Braidwood Emergency Plan Implementation Procedure, BwZP 200-1, "Braidwood Emergency Action Levels," Revision 8;
- BwZP 200-1A1, "Braidwood Station Hot Initiating Conditions," Revision 11E2;
- November 29, 2000, Memorandum from L. Gerovac, regarding critique of November 27, 2000, exercise; and
- Station Procedure S.18, "NRC 08 (S.18) Performance Indicator Data Summary," Attachment A, Revision 7, for November 27, 2000 exercise.

The inspectors also reviewed Technical Support Center log entries, offsite agency notification records, plant status summary reports, and other similar documents generated by the licensee emergency response staff during the exercise.

b. Findings

There were no significant findings identified.

3. OTHER ACTIVITIES

40A1 Performance Indicator Verification

a. Inspection Scope

The inspectors reviewed the safety system functional failure and scrams with loss of heat sink performance indicator data reported by the licensee for November 1999 through October 2000 for Unit 1 and Unit 2. This was accomplished, in part, through review and evaluation of Licensee Event Reports, and discussions with licensee personnel.

The inspectors reviewed the following documents:

- RS-AA-122-103, "Performance Indicator - Safety System Functional Failures," Revision 2;
- RS-AA-122-102, "Performance Indicator - Scrams With A Loss of Normal Heat Sink," Revision 0b; and

- Licensee Event Report 50-457/2000-001-00, "2A Essential Service Water Pump Inoperable For More Than Technical Specification Allowed Outage Time Resulting From Inadequate Testing Criteria Due To A Design Deficiency and Inadequate Methodology For The Return To Service."

The inspectors reviewed the corrective actions for the following CRs for corrective action effectiveness:

- CR A2000-00208, "Potential Error Discovered with NRC/NEI Performance Indicator Data Input"; and
- CR A2000-03562, "Incorrect Data Value Entered In NEI/NRC Performance Indicator."

b. Findings

There were no significant findings identified.

4OA6 Meetings

Exit Meeting Summary

The inspectors presented the inspection results to Mr. Tulon and other members of licensee management at the conclusion of the inspection on December 31, 2000. The licensee acknowledged the findings presented. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

4OA7 Licensee Identified Violations

The following findings of very low significance were identified by the licensee and are violations of NRC requirements which meet the criteria of Section VI of the NRC Enforcement Manual, NUREG-1600 for being dispositioned as Non-Cited Violations (NCV).

<u>NCV Tracking Number</u>	<u>Requirement Licensee Failed to Meet</u>
NCV 457/00-18-01	Technical Specification 5.4.1.c. requires written procedures shall be established, implemented, and maintained for Fire Protection Program Implementation. The Fire Protection Program was implemented, in part, by procedure OP-AA-201-004, "Fire Prevention for Hot Work." Condition Report A2000-04494 cited 45 examples of the failure to follow OP-AA-201-004 during the licensee's Unit 2 fall 2000 refueling outage.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

T. Tulon	Site Vice President
K. Schwartz	Station Manager
T. Luke	Site Engineering Director
J. Harvey	Nuclear Oversight Manager
T. Simpkin	Regulatory Assurance Manager
R. Graham	Work Management Director
L. Guthrie	Maintenance Manager
C. Dunn	Operations Manager
D. Goldsmith	Radiation Protection Director
G. Baker	Site Security Manager
B. Schramer	Chemistry Manager
J. Bailey	Regulatory Assurance - NRC Coordinator

NRC

M. Jordan	Branch Chief, Division of Reactor Projects
C. Phillips	Senior Resident Inspector
N. Shah	Resident Inspector

Illinois Department of Nuclear Safety

J. Roman	Resident Engineer
----------	-------------------

ITEMS OPENED AND CLOSED

Opened

457/00-18-01	NCV	failure to meet Technical Specification requirements
--------------	-----	--

Closed

457/00-18-01	NCV	failure to meet Technical Specification requirements
--------------	-----	--

LIST OF BASELINE INSPECTIONS PERFORMED

The following inspectable-area procedures were used to perform inspections during the report period. Documented findings are contained in the body of the report.

<u>Inspection Procedure</u>		<u>Report Section</u>
<u>Number</u>	<u>Title</u>	
71111-04	Equipment Alignment	1R04
71111-05	Fire Protection	1R05
71111-11	Licensed Operator Requalification Program	1R11
71111-12	Maintenance Rule Implementation	1R12
71111-13	Maintenance Risk Assessments And Emergency Work Control	1R13
71111-15	Operability Evaluations	1R15
71111-19	Post Maintenance Testing	1R19
71111-22	Surveillance Testing	1R22
71111-23	Temporary Plant Modifications	1R23
71114-06	Drill Evaluations	1EP6
71151	Performance Indicators	4OA1
	Licensee Identified Violations	4OA7

LIST OF ACRONYMS AND INITIALISMS USED

AF	Auxiliary Feedwater
BwAP	Braidwood Administrative Procedure
BwOP	Braidwood Operating Procedure
BwVS	Braidwood Engineering Surveillance Procedure
BwZP	Braidwood Emergency Plan Implementation Procedure
CC	Component Cooling Water
CR	Condition Report
CFR	Code of Federal Regulations
CV	Chemical and Volume Control
DCP	Design Change Package
ESF	Engineered Safety Features
HX	Heat Exchanger
LCO	Limiting Condition for Operation
KV	Kilovolt
NRC	Nuclear Regulatory Commission
NRR	Nuclear Reactor Regulations
PSA	Probabilistic Safety Analysis
SX	Essential Service Water