

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report Nos. 50-456/85017(DRP); 50-457/85018(DRP)

Docket Nos. 50-456; 50-457

License Nos. CPPR-132; CPPR-133

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

Facility Name: Braidwood Nuclear Power Station, Units 1 and 2

Inspection At: Braidwood Site, Braidwood, Illinois

Inspection Conducted: April 1 through May 3, 1985

Inspector: L. G. McGregor

Approved By: *W. S. Little*
W. S. Little, Director
Braidwood Project

May 31, 1985
Date

Inspection Summary

Inspection on April 1 through May 3, 1985 (Report No. 50-456/85017(DRP); 50-457/85018(DRP))

Areas Inspected: Routine, unannounced safety inspection of licensee actions on previous inspection findings, preoperational test procedure reviews, preoperational test performance, and preoperational test results evaluation. The inspection consisted of 195 inspector-hours onsite by one NRC inspector, including 22 inspector-hours onsite during offshifts.

Results: Of the four areas inspected, no items of noncompliance or deviations were identified.

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DETAILS

1. Persons Contacted

Commonwealth Edison Company (CECo)

- M. Wallace, Project Manager
- *L. M. Kline, Project Licensing and Compliance Supervisor
- *C. W. Schroeder, Project Licensing and Compliance Superintendent
- *D. L. Cecchett, Project Licensing and Compliance Engineer
- *P. L. Barnes, Project Licensing and Compliance Engineer
- *E. E. Fitzpatrick, Assistant Manager, Quality Assurance
- F. Lotarski, Field Engineer
- *C. Tomashek, Project Startup Superintendent
- B. Wurglitz, System Test Engineer
- B. Ronchetti, System Test Engineer
- D. Hoots, System Test Engineer
- R. Letko, Startup Group Leader
- *R. Kyroual, Operations Quality Assurance Supervisor
- *T. E. Quaka, Site Quality Assurance Superintendent
- *D. Jones, Project Engineer, Instrumentation
- *C. Gray, Project Structural Supervisor

Nuclear Regulatory Commission

- *L. G. McGregor, Senior Resident Inspector
- *W. S. Little, Chief Reactor Projects Branch

*Indicates those present at exit meeting held on May 3, 1985.

Additional licensee and contractor personnel were contacted during the course of the inspection.

2. Licensee Action on Previously Identified Items

(Closed) Item of Noncompliance (50-456/82-05-05; 50-457/82-05-05): This item of noncompliance involved a significant breakdown in the Braidwood quality assurance program which resulted in extensive evaluation, redesign, and repair to establish the adequacy of installed structures, systems, or components to meet the criteria and bases stated in the safety analysis report or the construction permit. The control and erection of mechanical equipment installed at Braidwood by Phillips Getschow has been addressed in 10 CFR 50.55(e) 82-07. Followup inspections on the corrective actions outlined in 50.55(e) 82-07 and the NRC Confirmatory Action Letter of September 8, 1982, are in-process and the closure of these items will be addressed in subsequent inspection reports. Based upon the licensee's corrective actions, the inspector considers this item closed.

(Closed) Item of Noncompliance (50-456/82-05-06; 50-457/82-05-06): This item of noncompliance involved the failure of the licensee to protect safety-related equipment from construction related work activities. The training of contractor personnel in the requirements for the protection and proper care of safety-related equipment and the development of procedures to prevent this damage are considered adequate. This item is considered to be closed.

(Closed) Item of Noncompliance (50-456/83-02-03; 50-457/83-02-03): This item of noncompliance related to the licensee's failure to control the issuance of documents, including changes thereto and that an informal speed letter was issued to document the modification of bolting to the steam generator lateral frame columns. Subsequently, an FCR (L-5128, dated May 21, 1982) was issued documenting the engineering decision. Based upon the licensee's corrective action, the inspector considers this item closed.

(Closed) Unresolved Item (50-456/83-08-01; 50-457/83-08-01): This item addressed the installation of safety-related tanks with insufficient anchor bolt lengths which is contrary to the original design requirements. A newly designed extender nut was installed to engage the shorter anchor bolts. NCR 555 was issued to track this deficiency. Based upon the licensee's corrective action, the inspector considers this item closed.

(Closed) Unresolved Item (50-456/84-13-10; 50-457/84-13-10): This unresolved item documented a plant modification to a reactor coolant pump lateral support. The inspector requested all documentation to substantiate the nonconforming condition and at a minimum provide the following: Engineering Change Notice, the Design Change review and approval, material specifications, qualified welding procedures, Quality Control records and inspections, and welder qualifications. Due to lack of documentation for this design change which affected two reactor coolant pumps, this unresolved item was upgraded to an Item of Noncompliance (50-456/84-21-08; 50-457/84-20-08) and is considered closed.

No items of noncompliance or deviations were identified.

3. Preoperational Test Procedure Review

The inspector reviewed the following preoperational test procedures against the FSAR, Startup Manual and Regulatory Guide 1.68 requirements:

BWPT-WO-10	Control Room Chilled Water System
BWPT-VD-10	Diesel Generator Room Vent
BWPT-RY-10	Reactor Coolant Pressurizer

The VD-10 test requires testing of the complete ventilation system; however, the diesel generator room discharge dampers remain inoperative. Other portions of this test will not be affected by these inoperative system components and upon construction completion of these dampers, test VD-10 will be accomplished.

No items of noncompliance or deviation were identified.

4. Preoperational Test Performance

The inspector witnessed the performance of portions of the following preoperational test procedures in order to verify that testing is conducted in accordance with approved procedures, independently verify that testing is conducted in accordance with approved procedures, independently verify the acceptability of test results and evaluate the performance of licensee personnel conducting the tests.

a. BWPT-DG-10, "Diesel Generators"

During the month of April, the 1A and 1B emergency diesels experienced unstable voltage and frequency conditions which prohibited completion of DG-10 testing. On April 19, 1985, a satisfactory test run on the 1B diesel was completed; however, the 1A diesel remains in a maintenance status. The completion of Section 9.37, "Diesel Generator Reliability Test" will be delayed until both diesels are operational.

b. BWPT-WO-10, "Control Room Chilled Water System"

Sections 9.1, "Chilled Water Pump OA Control Logic"; 9.2, "Chilled Water Pump OB Control Logic"; 9.5, "Chilled Water Unit OA Control Logic"; 9.6, "Chilled Water Unit OB Control Logic"; and 9.10, "Test of 4.16KV Feed Breaker Bus No. 142 Cubicle #11," were successfully completed. During Test 9.9, "Test of 4.16KV Feed Breaker Bus No. 141 Cubicle No. 10," problems developed with breaker indicating lights which required the System Test Engineer (STE) to write a deficiency and work order to evaluate the indicating light circuit and control contacts.

No items of noncompliance or deviations were identified.

5. Preoperational Test Results Evaluation

The inspector reviewed portions of the results of the following preoperational test procedure to verify all test changes were identified and approved in accordance with administrative procedures; test deficiencies were appropriately resolved, reviewed by management and retesting was conducted as required; test results were evaluated by appropriate engineering personnel and specifically compared with acceptance criteria; data was properly recorded, signed, dated and documented as test deficiencies if out of tolerance, test packages were reviewed by QA for adequacy of contents; and test results were approved by appropriate personnel:

BWPT-DC-10 125 Volt D.C. Distribution

Some test results give indications that may require additional supportive test data. As an example the following items are being evaluated and will be examined during future inspections:

- a. Incorporating the expected ranges for data collecting steps should be considered in all Braidwood preoperational tests as this method of verifying proper instrument reading was implemented in the Byron testing (see CECO response to Violation 3 of NRC Report 50-454/83-47).
- b. The high specific gravity readings taken in Step 9.5.15 invalidates the test results on data sheet 11.6. Specific gravity readings taken at the top of the cell are not consistent with the electrolyte specific gravity readings from the withdrawal tubes unless the cells have completed an equalize charge or after a considerable time (normally six weeks or more) have been on a "float charge." Test change 50 removed the requirement to record specific gravity readings of each cell after the battery capacity test, Section 9.4.
- c. The recent discharging (April 28, 1985) of battery banks No. 111 and No. 211 to approximately 55 volts and the subsequent paralleling and charger operations are also areas of concern with relation to the operability, and more specifically the eight hour battery capacity test of the station safety-related battery banks. These concerns will be examined in greater detail during future inspections.

No items of noncompliance or deviations were identified.

6. Exit Interview

The inspector met with licensee and contractor representatives denoted in Paragraph 1 during and at the conclusion of the inspection on May 3, 1985. The inspector 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.