

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-461/86030(DRS)

Docket No. 50-461

Construction Permit No. CPPR-137

Licensee: Illinois Power Company
500 South 27th Street
Decatur, IL 62525

Facility Name: Clinton Nuclear Power Station, Unit 1

Inspection At: Clinton Site, Clinton, IL

Inspection Conducted: April 28 through May 2, 1986

Inspectors: *S. G. DuPont*
S. G. DuPont

6/26/86
Date

H. Stromberg
H. Stromberg, EG&G Idaho, Inc.

6/26/86
Date

M. A. Ring
Approved By: M. A. Ring, Chief
Test Programs Section

6/26/86
Date

Inspection Summary

Inspection on April 28 through May 2, 1986 (Report No. 50-461/86030(DRS))

Areas Inspected: Previously identified inspector findings 461/85061-02 (92702).

Results: No items of violations or deviations were identified.

DETAILS

1. Persons Contacted

- *W. C. Gerstner, Executive Vice President
- *F. A. Spengenberg, Manager, Licensing and Safety
- *J. W. Wilson, Plant Manager
- *J. S. Perry, Manager, Nuclear Programs Coordinator
- *J. Greenwood, Manager, Power Supply (Soyland/WIPCo)
- *J. E. Loomis, Construction Manager
- *J. L. Thompson, QA Manager
- *J. G. Cook, Assistant Plant Manager
- *E. W. Kant, Assistant Manager, NSED
- *E. J. Corrigan, Director, Quality Engineering and Verification
- *J. A. Brownwell, Licensing Specialist
- D. Holesinger, Director, Startup Testing

The inspectors also interviewed other licensee employees, including members of startup and plant staff.

*Denotes those attending the exit interview on May 2, 1986.

2. Actions on Previous Inspection Findings

(Open) Unresolved Item (461/85061-02): inadequate control and quality of the licensee's turnover process of preoperational tested systems to the licensee's plant staff. The licensee's turnover process is divided into two separate stages. The first, "Phase II Final Release," is the stage where a system is jurisdictionally transferred to plant staff from startup. The second stage, "Declaration of Readiness," was an informal process without any administrative procedural control that tracked and trended the systems to determine readiness to support fuel load. During the previous inspection (Inspection Report No. 461/85061), the inspectors identified the following problems with the licensee's process:

a. Phase II Final Release

- (1) In general, the Procedure 1040.01, "System Release Review and Acceptance," was inadequate in that the procedure did not require any review or define any acceptance criteria other than as recommendations.

Example 1: The inspectors found that Procedure 1040.01 recommends that a Phase II release not be initiated until after the preoperational test results have been reviewed and accepted by the Joint Test Group. However, the following systems were Phase II released and accepted before preoperational testing was completed:

- ° Division III 125 VDC Battery System
- ° High Pressure Core Spray System
- ° Division III Diesel Generator System

Example 2: The inspectors found that in the case of safety-related batteries, the licensee's plant staff was not prepared to accept jurisdictional control of the system and maintain the system in the same state of condition as when the system was preoperational tested. This was primarily the result of poor maintenance practices and inadequately written, approved and reviewed procedures.

- (2) Procedure 1040.01 does not require tracking punch list items on a system as a whole. A given system's punch list items were tracked by assigned department and could be divided between maintenance, technical staff, or Nuclear Station Engineering Department (NSED). This process of tracking by department made a formal review for readiness of a given system extremely difficult in that there was no vehicle for identifying all the items involving that system.

b. Declaration of Readiness

- (1) In general, this process was not controlled by any administrative or quality procedure and was only a mechanism for plant management to determine if a system was ready to support fuel load. However, this determination was based on an undefined condition, once the punch list was reduced to an arbitrarily small number, the Manager-CPS would declare the system ready to support fuel load.
- (2) The process does not have a defined acceptance criteria for declaring a system ready to support fuel load.

- c. The inspectors reviewed the licensee's corrective actions to the unresolved item and found that they did not resolve the concerns. The inspectors found that Procedure 1040.01 was not revised and as such still contained only recommendations without control or quality. The inspectors did, however, find that an administrative procedure had been issued to control the declaration of readiness to support the fuel load process, but it was also inadequate in administrative and quality control of the process. Because of this review, the inspectors find this unresolved item still open with only minimal improvements.

- d. During the review the inspectors found additional concerns and deficiencies as follows:

(1) Station Punch List

During the review the inspectors found that the station punch list had been formalized into an administrative procedure. However, the actual punch list did not agree with the procedure, CPS 1025.01, in that many of the Milestone Priority Codes addressed by the procedure for determining milestones are not updated to indicate changing conditions of an item as new requirements and documents are added to the item. In some cases, the milestone code was determined during preoperational testing and was not changed to reflect current licensing conditions. Additionally, the closure and removal of punch list items did not require any management review other than actions by the system engineer.

(2) Review of Systems Ready for Fuel Load Turnover

The inspectors reviewed the applicant's Procedure 1014.02, "Designating Systems Ready for Fuel Load," Revision 2, to determine whether or not their procedures had been adhered to during declaration, whether or not all problems had been addressed, and whether or not the system was ready for turnover.

The inspection was performed in two parts. The first was to review completed declaration packages, and then, secondly, to walk the one system down to determine if it appeared to be ready for fuel load.

During the inspection, two completed "System Ready for Fuel Load Declaration" packages were obtained and reviewed. The first package reviewed involved the 125 Volt DC System. There were a large number of questions generated during this review, mostly dealing with incompleteness of the declaration statements. The systems engineer was interviewed and it became apparent that most of the inspector's questions had, in fact, been examined at turnover just not documented in the write up. Management was questioned about this situation and indicated that some early system declarations had been completed based on a procedure that had since been revised. The applicant indicated that the documentation of the early systems had not been reexamined following the revision of the procedure. The applicant indicated that systems in question would be reviewed. The second completed package reviewed involved DG-3 (Division III Diesel Generator). Due to lack of personnel resources this package was given a cursory review. The review noted that the package appeared complete, and no major problems were identified.

(3) System Walkdowns

The second part of the inspection was to perform a walkdown of DG-3 (Division III Diesel Generator). During walkdown, the following problems were identified requiring response from the applicant:

- (a) The outboard generator bearing oil glass had etchings that indicated full and low level. The oil level was actually above the full level. The applicant was not sure what the maximum level should be, and therefore, was not sure that the level was too high. The problem is being researched.
- (b) There was an apparent modification to the diesel lubricating oil system that was not being tracked as a modification. The applicant is researching to determine the reason for the modification. The applicant needs to demonstrate that the modification is being controlled in accordance with procedures.
- (c) One of the air start motors on the diesel was venting upward and into a passage where people could be walking. The applicant had the vent readjusted so it was venting towards the floor.
- (d) There were a number of items (valves and strainers) missing identification tags. The applicant indicated that these problems would be researched and addressed appropriately.
- (e) One of the air start air compressors had oil on a bedplate below the compressor. The applicant indicated the oil sample connection was not long enough to allow easy sampling and the oil was the result of sampling. The line was going to be modified.
- (f) There was a wooden box built around a snubber on the diesel exhaust and the box was filled with rags. Following research it appeared that the box was installed to protect the snubber while work was in progress in that area and the rags had been stuffed in the box to keep the box from rattling. The applicant indicated the box and rags would be removed when the work was done in the area.
- (g) A nonconforming material report (NCMR-1-1267) had been generated and closed. Closure had been made approximately a year earlier. The NCMR tag had not been cleared. The applicant is to research and respond to the problem.

(4) Modification Control

The inspectors reviewed the applicant's modification activities to ascertain whether or not the applicant maintained conformance to the approved station procedures.

The inspection was performed in two stages. The first stage was to obtain two completed modification packages and review them. The second step was to review any supporting document packages. The packages were reviewed for completeness, all the necessary reviews, adequacy of testing, and conformance to the controlling procedures.

During the inspection, the following item was identified:

- ° Both modification packages (TDG-58 and TDG-59) had Post Maintenance Testing documents included which had all of the testing marked as NA (not applicable) without a signature or date. In one case (TDG-58), welding and cutting had been performed on a diesel lube oil system. It did not seem appropriate to the inspector that flushing was not done. This item was presented to the applicant as an open inspection item (461/86030-01) pending the applicant's investigation and response.

In addition to the above open item, the inspectors found the following:

(a) TDG-58, Oil Circulation Pump Modification

1. Maintenance Work Request (MWR) B15089 required performance of a vibration analysis. However, this requirement was not performed, and MWR B15089 was closed without a disposition for not performing the vibration analysis. The issue of inadequate closure of MWRs has been previously identified to the licensee by region-based and resident inspectors and is currently being addressed by the licensee. Because the licensee is in process of reviewing all MWRs that were completed on Phase II systems for adequacy this is not considered a violation. The resolution of this deficiency will be accomplished by a scheduled inspection prior to licensing.
2. Other inadequacies with MWR B15089 were; a seismic analysis was not performed or required after the pump pedestal was modified, the installation requirements to enlarge the base plate holes parallel to the pump shaft were changed by the craftsman to perpendicular with the shaft without engineering evaluation, and although the

modification was issued as a minor modification, the modification became a major modification prior to completion. In this case it was not apparent that the administrative procedure provided a provision to upgrade the modification status from a minor to major. These inadequacies are also being addressed by the licensee through their 100% audit of MWR closure.

(5) Summary

Because of the various deficiencies found by the inspectors during the review of the turnover process, the administrative and management controls needed to assure that the systems are adequately maintained after preoperational testing are still not apparent. Since the inspection, the licensee has revised the administrative procedures. The revisions will be reviewed during a scheduled inspection to verify that adequate controls exist and that all previously turned over systems have been upgraded.

No violations or deviations were identified; however, one new areas requires additional research and is documented as an open item.

3. Open Items

Open items are matters which have been discussed with the licensee, which will be reviewed further by the inspectors, and which involve some action on the part of the NRC or licensee or both. An open item disclosed during the inspection is discussed in Paragraph 2.d.(4).

4. Exit Interview

The inspectors met with licensee representatives (denoted in Paragraph 1) on May 2, 1986. The inspectors summarized the scope and findings of the inspection. The inspectors also discussed the likely informational content of the inspection report with regard to documents or processes reviewed by the inspectors during the inspection. The licensee did not identify any such documents or processes as proprietary.