

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-461/88002(DRS)

Docket No. 50-461

License No. NPF-62

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

Facility Name: Clinton Nuclear Power Station, Unit 1

Inspection At: Clinton Site, Clinton, Illinois

Inspection Conducted: January 15 through April 6, 1988

Inspectors: *S. Stasek for*  
A. M. Bongiovanni

4/13/88  
Date

*F. A. Maura*  
F. A. Maura

4/13/88  
Date

*S. Stasek*  
S. Stasek

4/13/88  
Date

Approved By: *M. P. Phillips*  
M. P. Phillips, Chief  
Operational Programs Section

4/13/88  
Date

Inspection Summary

Inspection on January 15 through April 6, 1988 (Report No. 50-461/88002 (DRS))

Areas Inspected: Routine, unannounced safety inspection of actions on a previously identified item (92701), and review of startup test results (72532, 72301).

Results: Of the two areas inspected, no violations or deviations were identified. Overall, the licensee appeared to have well documented test packages that included all required data/information to establish proper validation of test results against approved acceptance criteria.

## DETAILS

### 1. Personnel Contacted

#### Illinois Power Company (IP)

- \*W. C. Gerstner, Executive Vice President
- \*D. P. Hall, Vice President
- \*J. W. Wilson, Manager, Clinton Power Station
- \*J. Greenwood, Manager, Power Supply
- \*J. A. Miller, Manager, Scheduling and Outage Management
- \*R. E. Wyatt, Manager, Nuclear Training
- \*R. E. Campbell, Manager, QA
- \*L. S. Perry, Manager, Nuclear Program Coordination
- \*F. A. Spangenberg, Manager, Licensing and Safety
- \*D. L. Holesinger, Assistant Manager, Clinton Power Station
- \*R. W. Morgenstern, Assistant Manager, Plant Technical
- \*R. J. Kerestes, Director, Field Engineering
- \*D. Tucker, Director, Configuration Management
- \*E. W. Kant, Director, NSED
- \*J. D. Weaver, Director, Licensing
- \*K. A. Baker, Supervisor, I&E Interface
- \*M. E. Aldridge, Graduate Trainee, Licensing and Safety

#### U.S. Nuclear Regulatory Commission

- \*P. Hiland, Senior Resident Inspector, Clinton
- \*W. Kropp, MOS, RIII
- \*T. Tella, MCS, RIII

\* Denotes those personnel listed above who attended the exit interview on April 6, 1988.

### 2. Actions on Previously Identified Items

(Closed) Open Item (461/87033-01(DRS)): Acceptability of the licensee's program for categorization and recalibration periodicity for permanently installed plant instrumentation. The inspector reviewed the licensee's administrative program for categorizing instruments and the specific methodology used for establishing recalibration schedules. A review of a computer generated master instrument list was also performed by the inspector and a sample selected to independently verify proper categorization. The licensee's administrative program was found to be adequate in this area and the selected sample of line items from the instrument list was determined to be properly categorized. This item is, therefore, considered closed.

### 3. Startup Test Results Evaluation

The inspectors reviewed the results of the startup test procedures listed below to verify that all test changes were identified and approved in accordance with administrative procedures; all test deficiencies were appropriately resolved, reviewed by management, and retested 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, and test results were approved by appropriate personnel:

STP-05-H	Control Rod Drive System
STP-04-0	Full Core Shutdown Margin
STP-06-0	SRM Performance and Control Rod Sequence
STP-25A-1	MSIV Functional Tests
STP-30C-1	Reactor Recirculation System Performance
STP-31-1	Loss of Turbine Generator and Offsite Power
STP-19-2	Core Performance
STP-27-2	Turbine Trip Within Bypass Valve Capability
STP-30C-2	Reactor Recirculation System Performance
STP-29A-3	Recirculation Flow Control Tuneup and Demonstration Test
STP-30A-3	Recirculation System: RPT Trip of One Pump
STP-30B-3	Recirculation System: RPT Trip of Two Pumps
STP-30C-3	Reactor Recirculation System Performance
STP-19-4	Core Performance
STP-30C-4	Reactor Recirculation System Performance
STP-25B-6	MSIV - Full Reactor Isolation
STP-27-6	Generator Load Rejection
STP-30C-6	Reactor Recirculation System Performance

- a. With respect to STP-05-H, the inspector noted that when comparing Data Sheet E, individual scram testing at rated RPV pressure, against the GETARS traces, the data sheet had scram times for CRDs 08-45 and 16-37 reversed. The same problem was noted for Data Sheet F. The licensee acknowledged the error and corrected the record. The inspector also noted that during friction testing, the licensee used a recorder which lacked adequate sensitivity/readability for proper measurement against the acceptance criteria limit of  $\leq 15$  psid. (The recorder calibration was  $1\text{mm} = 10$  psid with a trace width of nearly 10 psid). During the test, the measured dPs were sufficiently low so that the questionable sensitivity/readability of the recorder did not adversely impact the 15 psid limit. The licensee was encouraged to obtain a more appropriate measuring instrument to record future friction tests. The licensee agreed to evaluate an upgrade to the equipment.
- b. With respect to STP-25A-1, the inspector noted that when comparing Data Sheet C, MSIV Closure Transient Peaks, against the GETARS traces, the data sheet peak venturi dPs did not agree with the traces in five of the twelve traces reviewed. The licensee performed a review, acknowledged the errors, and corrected the record.

- c. During the performance of STP-31-1 the licensee experienced a loss of CRD position display, as well as closure of the turbine bypass valves at the start of the transient. Both events were caused by the lack of uninterruptible power to their respective circuits, or portions of it. With respect to the loss of CRD position display, the licensee plans to modify the system by supplying it with uninterruptible power. It should be noted that CRD position indication is presently available to the operators through the use of the plant computer. With respect to the immediate closure of the bypass valves, the licensee plans no corrective action because, per plant design, closure of the MSIVs also occurs during a loss of offsite power due to the leak detection logic. In addition this transient is bounded by the turbine trip without bypass event. According to the licensee, other plants of the BWR/6 design also allow for loss of MSIV and bypass valve operability during a loss of offsite power.
- d. During the performance of STP-27-6 the feedwater pump turbines were automatically tripped at level 8. This trip could be avoided by changing the values for the water level setpoint in the setdown logic following a transient. The licensee decided against changing the level setpoint values to minimize the risk of ECCS injection on level 2. The licensee will depend on operator action to avoid the level 8 trip of both feedpumps. In the event both turbine driven feedpumps trip, the backup electric driven feedpump may be started once the high level trip is cleared. The inspector has no safety concerns regarding the licensee's action.

4. Exit Interview

The inspectors met with licensee and contractor representatives denoted in Paragraph 1 during and at the conclusion of the inspection on April 6, 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.