

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-461/82-14(DPRP)

Docket No. 50-461

License No. CPPR-137

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

Facility Name: Clinton Power Station, Unit 1

Inspection At: Clinton Site, Clinton, IL

Inspection Conducted: August 1 through September 30, 1982

Inspector: *F. J. Jablonski for*  
H. H. Livermore

11/22/82

Approved By: *D. W. Hayes*  
D. W. Hayes, Chief  
Reactor Projects Section 1B

11/22/82

Inspection Summary

Inspection on August 1 through September 30, 1982 (Report No. 50-461/82-14(DPRP))

Areas Inspected: Routine safety, resident inspector inspection of construction activities including material laydown and storage areas, general welding activities, program control and numerous stop work recovery activities. The inspection involved a total of 231 inspector-hours onsite by the NRC resident inspector, including 24 inspector-hours onsite during offshifts.

Results: Of the areas inspected one item of noncompliance was identified.  
(Report paragraph 3.e.)

## DETAILS

### 1. Persons Contacted

#### Principle Licensee Employees

W. C. Gerstner, Executive Vice President  
\*J. O. McHood, Vice President, Project Manager  
\*R. J. Canfield, Director, Construction  
\*A. J. Budnick, Director, QA  
\*E. E. Connon, Director, Compliance  
\*J. S. Spencer, Director, Design Engineering NSED  
\*W. L. Calhoun, Electrical Construction Supervisor  
B. Spicer, QA Engineer  
\*G. N. Motsegood, Engineering Supervisor, Construction  
\*L. Brodsky, Assistant Plant Manager  
\*R. Weber, Station QA Engineer  
\*R. Campbell, Supervisor, Programs and Procedures  
\*D. E. Korneman, Assistant Director, Construction  
L. J. Koch, Vice President, Engineering and Licensing  
\*G. W. Bell, Supervisor, Audit and Surveillance  
\*N. S. Derks, Compliance Analyst  
\*T. F. Plunkett, Plant Manager  
\*J. M. King, Assistant Director Construction  
D. P. Hall, Vice President

#### Baldwin Associates

\*J. W. Smart, QA Manager  
\*J. E. Findley, Manager, Quality and Technical Services  
\*W. J. Harrington, Project Manager and Vice President  
\*H. R. Swift, Project Engineer  
\*G. Chapman, Manager, Technical Services  
T. Yearick, Assistant Project Manager  
\*D. R. Murphy, Sr., Electrical Engineer  
\*P. Bryant, Assistant Manager, Quality and Technical Services  
  
H. J. Harris, Assistant Project Engineer  
\*R. W. Jones, Assistant QA Manager  
\*M. E. Daniell, Assistant Manager, Technical Services  
\*C. Anderson, Manager, Quality Control

#### Sargent and Lundy

D. K. Schopfer, Field Project Manager

#### Authorized Nuclear Inspection (ANI)

\*M. L. Tracey, CPS ANI  
L. Malabanon, CPS ANI

Other staff and personnel were contacted during the reporting period.

\*Denotes those attending at least one of the exit meetings.

2. Licensee Action on Previous Inspection Findings

(Closed) Open Item 50-461/82-08-01: Illinois Power completed an evaluation and determined that Clinton Power Station does not use bullet resistant fire doors of the type identified as a problem at Kewanee Power Plant. Illinois Power went on to state that all their fire doors will be fire rated and have the required UL label. This item is closed.

3. Functional or Program Areas Inspected

a. Site Surveillance Tours

At periodic intervals during the reporting period, surveillance tours of the site were performed. These surveillances are intended to assess: the cleanliness of the site; the storage and maintenance conditions of equipment and material being used in site construction; the potential for fire or other hazards which might have a deleterious effect on personnel and equipment; and to witness construction activities in progress. In general the storage and maintenance of safety related material and equipment appears acceptable throughout the laydown areas and the Power Block.

No items of noncompliance or deviation were identified.

b. Welding Activities

During the reporting period, the inspector observed general welding activities associated with electrical hangers and structural attachments in the Power Block. For the welding examined one or more of the following activities was observed: Protection of nearby electrical cable was satisfactory. Electrode control and handling was satisfactory. The welding areas were free of contaminants. The welders were certified as qualified for the thickness and the process specified. Technique and weld results appeared to be satisfactory.

No items of noncompliance or deviation were identified.

c. Program Control

At periodic intervals, the NRC inspector reviewed Nonconformance Reports (NCRs), Discrepancy Reports (DRs), Field Change Requests (FCRs), Sargent and Lundy Specification Revisions, FSAR Amendment, Constructor Audit Reports, Construction Procedure Revisions, Licensee Quality Procedures, Trend Analysis, Licensee Surveillance Reports, Findings, Audits, and plant problems identified by Corrective Action Requests (CARs). Numerous informal comments

were forwarded to the Licensee and constructor for action and/or discussion. The NRC inspector attended numerous status and/or problem discussion meetings with the Licensee and constructor. The inspector also reviewed and approved individual Stop Work exceptions as allowed by NRC Confirmatory Action Letters.

No items of noncompliance or deviation were identified.

d. Potential Problem Identification

The following item was forwarded to the Licensee for information and "followthrough" action. The item consists of generic problem information obtained by the NRC from other power reactors. The NRC inspector explained that the information may identify a potential problem of a similar nature at Clinton. The Licensee is requested to investigate the problem, determine its applicability, and denote action to be taken.

At Riverbend, during a recent inspection of Power Generation Control Complex (PGCC) Terminal Cabinets, it was observed that the spring nuts holding terminal blocks to powerstrut channels were not properly aligned. Previous experience with misaligned and improperly tensioned spring nuts has been that, when installed in this manner, the spring nuts do not preclude component slippage when subjected to specified accident forces.

This is Open Item 50-461/82-14-01

e. Radwaste Reprocessing System Evolution

During the reporting period, the inspector performed a surveillance of a Plant Staff evolution at the Radwaste Operations Center (ROC) Control Room. A Radwaste Reprocessing System recirculation, chemical test, and dump evolution was performed without procedures. The system lineup consisted of 1WE02T Waste Surge Tank, 1WE024 Surge Tank Decant, 1WE02P Pump, 1WE018 Surge Tank RCRC, and temporary in-line filters. The inspector notes that there was no applicable procedure for this lineup configuration present in the Control Room. When queried, the operator retrieved two procedures from an office (00P3901.03S and .02N). It was immediately evident that neither procedure addressed the lineup configuration nor the specific test content/instruction used for the evolution observed. The performance of plant system (test) evolutions without the use of detailed procedures/instructions is contrary to the requirements of 10 CFR 50, Appendix B, Criterion V, Instructions, Procedures and Drawings, and constitutes an Item of Noncompliance (50-461/82-14-02).

f. Absence of Third Party Inspection

Independent inspection by the Authorized Nuclear Inspection Agency (ANI) was not performed in all cases at Clinton Power Station. The Resident Inspector notes that there were certain

items, including the Containment Liner, Fuel Pool Liners, Reactor Pressure Vessel Pedestal, and Piping Component Supports, that were fabricated and/or installed without an onsite, in-line inspection by the ANI agency. The Licensee's Preliminary Safety Analysis Report (PSAR) and Final Safety Analysis Report (FSAR) commitments were to design and build the items (and others) in accordance with the requirements of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code Section III. Inmate in the ASME code is the requirement of Code Symbol Stamping, and thusly a third party independent inspection. Both of the requirements were deleted on certain items such as the subject Liners and Reactor Pedestal. The Architect Engineer's Specifications specifically delete the ASME Code Symbol Stamping requirement. Since there was no Code Stamp, and as a result no N-5 Data Form, the site ANI Agency did not perform a third party inspection. The Resident Inspector has requested the Licensee to identify all other items on which the Code Stamping Requirement has been deleted, and on which no third party inspection was performed. The Resident Inspector has requested action of the NRC Office of Nuclear Reactor Regulation (NRR) to evaluate the past and ongoing practice of "no third party inspection" on the subject items. The Resident Inspector has requested NRR to evaluate the legality of the Architect Engineer's action of deleting the Code Stamping requirement; evaluate the premise that some "level of equivalency" for the omitted third party inspection be demonstrated by the Licensee; and that the third party independent inspection be reinstated for on-going and corrective action work on the subject items.

This is Unresolved Item 50-461/82-14-03.

#### 4. Meetings and Site Visits

- a. The second in a series of management meetings was held with corporate officers and staff of the Illinois Power Company at the Clinton Power Station on August 9, 1982. The purpose of the meeting was to discuss the existing stop work recovery plans and proposals with respect to continuing construction work activities at the Clinton Power Station. Details are provided in NRC Report 50-461/82-13.
- b. A follow-on management meeting was held on site on August 1, 1982. Participants from NRC were R. C. Knop, Chief, Projects Branch 1, C. C. Williams, Chief, Plant Systems Section, and H. H. Livermore, Senior Resident at Clinton. The Illinois Power participant was Executive Vice President W. C. Gerstner. The findings of an audit of Illinois Power management by LRS Consultants were presented and discussed, as were those of a special audit of Baldwin Associates by Fishbach and Moore (F&M). One item presented by the NRC was the recommendation that Illinois Power formulate an Overall Schedule and Master Management Plan that will integrate all ongoing work and manpower resources with the present Stop Work

Recovery Plans. This management plan should be in operation prior to the implementation of any separate Recovery Plan.

- c. A subsequent on-site management meeting was held on September 14, 1982. NRC participants were R. C. Knop, Chief, Projects Branch 1, D. Hayes, Chief, Projects Section 1B, F. Jablonski, Projects Inspector, and H. H. Livermore, Senior Resident, Clinton. Illinois Power participants were W. C. Gerstner, Executive Vice President and D. Hall, Vice President. One purpose of the meeting was to introduce and brief Mr. Hayes and Mr. Hall - both newly assigned to the Clinton Project. Status of the Recovery Plans and on-going work were discussed.
- d. A management meeting was held with corporate officers and staff of the Illinois Power Company, Baldwin Associates, and NRC at the NRC Region III office in Glen Ellyn, Illinois on September 30, 1982. The purpose of the meeting was to discuss the status of stop work recovery and overinspection programs, the master management plan, and significant findings and recommendations from various consultant's audits associated with the Clinton Power Station.

Details are provided in NRC Report 50-461/82-17.

#### 5. Stop Work Chronology

A summation of the past Stop Work events was presented in NRC Reports 50-564/82-05 and 08. Since the previous chronology, five Stop Work Recovery Plans have been formally submitted to the NRC Region III for review.

On September 1, 1982, the NRC Region III issued a Confirmatory Action Letter (CAL) encompassing the existing Stop Works in effect as well as other corrective actions expected of Illinois Power. Confirmatory Action Letters document the NRC's understanding of courses of action to be taken and in progress in order to assure that the Clinton Power Station will be constructed in accordance with the Final Safety Analysis Report.

On September 3, 1982, Region III approved a partial release of Electrical Stop Work #007. The partial release consisted of allowing the Contractor's QC inspection and construction corrective work on a controlled number of electrical cable trays and attachments. Once completed, an overinspection will be performed by the NRC Region III prior to full release of the Stop Work.

On September 16, 1982, Region III approved a partial release of Structural Steel Stop Work #019. The partial release plan 2A-1 consisted of a re-inspection of a group of structural beams installed in Containment. Previous inspection records had been lost. Results of the re-inspection will be used to help determine extent of existing problems. The basic Stop Work remains in effect.



On September 27, 1982, Region III issued a letter to Illinois Power rejecting their request for a partial lift of Stop Work #016, Electrical Conduit Installation. The proposed partial release plan was not a relatively, small, well-defined, controlled scope of work defined by the NRC as a partial release. Furthermore, certain commitments and procedures were not addressed, as required by the applicable Confirmatory Action Letter (CAL). The NRC letter went on to state that the Illinois Power master management plan covering all facets of the Project Management, Engineering, and Quality Organization had not been submitted to the NRC as stipulated in the Confirmatory Action Letter dated September 1, 1982. This management plan must be reviewed and concurred in by the NRC prior to lifting Stop Work Order 010 and 14 through 020.

In summation the 10 original Stop Works remain in effect; and 3 Confirmatory Action Letters (CAL) remain imposed on Illinois Power by the NRC.

6. Exit Meetings

The inspector met with Licensee representatives (noted in Paragraph 1) throughout the months of August and September and summarized the scope and findings of the inspections performed.

The inspector attended the following Region III inspector exit meetings:

- R. Love and R. Janke on September 3, 1982
- D. Keating on September 16, 1982
- R. Paul on September 17, 1982