

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-461/85031(DRP)

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: May 20-23, 1985

Inspector: *F. J. Jablonski*
F. J. Jablonski

6/11/85
Date

Approved By: *R. F. Warnick*
R. F. Warnick, Chief
Reactor Projects Branch 1

6/11/85
Date

Inspection Summary

Inspection on May 20-23, 1985 (Report No. 50-461/85031(DRP))

Areas Inspected: Routine, unannounced inspection concerning allegations and resolution of open items. The inspection involved 38 inspector-hours onsite by one NRC inspector.

Results: No items of noncompliance were identified. No items significant to plant safety were identified.

DETAILS

1. Persons Contacted

Illinois Power (IP)

- *W. Gerstner, Executive Vice President
- *J. Brownell, QA Specialist
- *J. Cook, Assistant Plant Manager
- *W. Connell, Manager of QA
- *H. Daniels, Project Manager
- *J. Greenwood, Manager of Power Supply (Soyland Power)
- *D. Hall, Vice President
- *J. Loomis, Construction Manager
- *J. Miller, Director of Startup Programs
- *J. Perry, Manager of Nuclear Programs
- *F. Spangenberg, Director of Nuclear Licensing
- *J. Spencer, Director of Design Engineering

Baldwin Associates (BA)

- *A. King, Project Manager
- *L. Osborne, Manager of Quality and Technical Services
- *J. Thompson, supervising Quality Engineer

Other personnel were contacted during the inspection as a matter of routine.

*Designates those who attended the exit meeting on May 23, 1985.

2. Followup on IE Circulars

(Closed) IE Circular (81003-CC): Inoperable Seismic Monitoring Instrumentation.

For the IE Circular listed above, the inspector verified that it was received by management, reviewed for applicability, and evaluated for corrective action. The actions taken appeared adequate. This matter is closed.

3. Followup on 10 CFR 50.55(e) Reports

(Closed) 50.55(e) Item (461/81005-EE): U-bolt electrical hanger fitting. This matter was initially reported to NRC on October 27, 1981, and inspected by RIII as described in report 461/83014. The inspector reviewed data in a document titled "Corrective Action Documentation for Reinvestigation of 55-81-06" wherein three corrective action options were described. IPQA approved Option 1 based on an approved report on the investigation of cracking and failure of Superstrut supplied A-212, E-212

and H-212 strut fittings. Option 1 included a search and removal of defective fittings, inspection of hangers and replacement of fittings if found, revision of purchasing requirements, validation of QC inspection data, and revision of QC inspection procedures and forms. All aspects of the corrective actions were complete. This matter is closed.

4. Followup on 10 CFR 50 Part 21 Reports

(Closed) Part 21 Report (461/82003-PP): NSPS load driven connector plugs. The inspector reviewed the actions taken by General Electric (GE) and IP. Records showed that GE had completed the installation of jumpers in 101 connector plugs described as LHI-767 in June 1984. IP has completed construction and initial operation testing of the NSPS system which verified installation of the jumpers. This matter is closed.

(Closed) Part 21 Report (461/82018-PP): Control switches in ADS system. The inspector reviewed the actions taken as described in IP Construction Work Request 5530. IP has completed construction and initial operation testing of the ADS system which verified correction of deficiencies in the GE supplied control switches. This matter is closed.

(Closed) Part 21 Report (461/84004-PP): Environmental test failure of circuit breaker used for hydrogen recombiner. IP has its own qualification program for accident environment temperature testing. Accident environment temperature for BWR Mark III is 125 degree F not 165 degrees as tested by Rockwell International; therefore, the problem described in Rockwell International letter to NRC RIV dated May 27, 1983, does not apply to the Clinton site. This matter is closed.

(Closed) Part 21 Report (461/84005-PP): Rosemount Model 1153 Series B Transmitter Amplifier Board. A search and investigation conducted by IP did not disclose receipt of the defective amplifier board described in Rosemount, Inc. letter dated July 19, 1984. No other action will be taken. This matter is closed.

(Closed) Part 21 Report (461/84006-PP): Deficiencies in Elma power supplies. In conversation with an IP representative on September 21, 1984, it was determined by RIII that Elma power supply units were not installed in safety related systems. This information applies to IE Information Notice 83-04 "Failure of Elma Power Supply Units." These matters are closed.

5. Followup on Allegations

(Closed) Allegation (RIII-85-A-0013) (No. 118): Six concerns arising from paint stripped from welds.

In January 1985, RIII received a memorandum from NRC RIV. Attached to the memorandum was a letter of concern from a former BA first line QC electrical field supervisor. The individual expressed six concerns associated with removal of paint from attached welds.

Synopsis of Incident:

On or about December 29, 1983, a first line QC electrical inspector reported to his field supervisor that paint on carbon steel attachment welds had been removed and apparently invalidated previously completed first line QC inspections. In addition, the person removing the paint was not using a traveler, but a request for construction assistance form to officially perform and document the work being done. Two nonconformance reports (NCRs) were written, NCR 13567 and NCR 13568, on December 29 and 30, 1983. Both NCRs described the following condition: "Paint has been removed from the equipment to pad welds of 1AP94E (1AP41E). Stripping agent used for paint removal was either Strip It or Kleen Strip. Composition and content of these stripping agents is indeterminate at this time for use on 1E equipment." Both NCRs were validated by the field supervisor on December 30, 1983. As a result, stripping of paint was stopped.

Background:

BA first line QC inspection is augmented by BA field verification inspection which is an integral part of IP's Overinspection Program. BA procedure BQA 190 describes the Field Verification Program. The program includes examinations, measurements, and observations of hardware previously inspected by first line QC inspectors. BA procedure BQA 190 section 6.11 requires paint be removed for verification of all weldments, and section 7.1.3 describes requirements for use of craft support including removal of coatings (paint). BA procedure BAP 2.34 "Craft Support of Field Verification" section 5.2 describes the administrative methods used for removal and reapplication of paint and Galvanox by recording the actions on Form JV-959 "Craft Support Request"; travelers are not required.

Six Concerns:

The six concerns expressed by the individual have been consolidated into three items discussed below.

a. How and when was the stop-work closed?

Figure 0-3 of the BA QA Manual grants authority and responsibility to delegated representatives of the Manager of Quality and Technical Services for limiting any operation or process considered out of compliance with requirements of the QA Manual. A written stop work order was not issued. The NCRs previously discussed above under Background were dispositioned on January 5, 1984, but were superseded the same day by NCRs 13629 and 13630 because paint was reapplied without proper surface preparation. Final inspection was completed on January 5, 1984. No formal stop work order was issued. Work resumed on January 5, 1984, after completion of final inspection.

- b. Paint remover was purchased non-safety related when used on safety related components; paint remover was purchased from unapproved vendors; there was no certificate of conformance with shipment to verify purchase order requirements.

ANSI N45.2.13, "QA Requirements for Control of Procurement of Items and Services," requires QA requirements to be compatible to the particular type of item or service to be supplied. A factor in determining QA requirements is the importance to plant safety of a malfunction or failure. Each item to be procured must be evaluated by the engineering staff to determine its importance to plant safety. Use on a safety related system, structure, or component does not mean it is safety related. In BA memorandum RRR/9/84 it is documented that an engineering decision had been made by Sargent & Lundy to allow paint removal by solvent cleaning provided adequate methods were used to protect adjacent items.

Regulatory Guide 1.54 "QA Requirements for Protective Coatings Applied to Water Cooled Nuclear Power Plants," delineates QA requirements for coating materials per ANSI N101.4 "Protective Coatings (Paints) for Light Water Nuclear Reactor Containment Facilities." In part, the regulatory guide states that coatings used with stainless steel should not be compounded from or treated with chemical compounds containing elements that could contribute to corrosion, intergranular cracking, or stress corrosion cracking. Examples of such chemical compounds are those containing chlorides and fluorides (halogens) where such elements are leachable or where they could be released by breakdown of the chemical compounds under expected environmental condition, for example, by radiation. BA procedure BAP 1.9 "Control of Stainless Steel" provides controls for stainless steel including those associated with handling, storage, identification, cleaning, and coating, and the tools and attachments associated with receiving, fabrication and/or installation of stainless steel items or materials. All materials approved for use on stainless steel are required to have a Certificate of Conformance and should not have halogen content in excess of 0.1% by weight. BA procedure BAP 3.2.6 "Reactor Pressure Vessel Cleaning and Cleanliness Control," lists solvents that are approved for use in/on the reactor vessel and associated piping. The procedure requires approval from GE to deviate from the list.

The engineering decision to purchase paint remover as non-safety related was correct, thereby removing any requirements for vendor approval or certificate of conformance on receipt of the commodity. Adequate controls exist to preclude use of paint remover on stainless steel materials the real area of concern. At no time was it ever alleged that halogenated paint removing solvents were used on or adjacent to stainless steel material. There are no restrictions against using commercial grade solvent paint removers on items fabricated from carbon steels, as was the case in this allegation.

- c. Were areas where paint removal was used documented on NCRs? Have areas where paint was removed been recoated?

NCRs associated with this matter are described above. The inspector observed the specific carbon steel equipment pad welds. At 1AP41E the welds had been recoated with Galvanox primer and ASA #61 gray paint. The inspector observed that other carbon steel welds in the general vicinity of the equipment, that is, HVAC and electrical raceway supports, had also been recoated. At 1AP94E, however, the same type welds appeared to have been recoated but were recently wire brushed clean. The reason for this condition on the pad welds was noted on an IP nonconforming material report #508. In both locations the equipment was indoors in the Auxiliary Building free from radiation and other corrosive atmosphere. The inspector did not observe any stainless steel piping or materials in any of the equipment areas.

Conclusion:

A stop order was not warranted. None of the concerns was valid because overinspections, including recoating welds, were being conducted in accordance with established site procedures; purchase of paint remover as a commercial grade item was appropriate; use of solvents to remove paint from carbon steel materials was not prohibited; and adequate controls existed to protect stainless steel from halogenated solvents. This matter is closed.

6. Exit Meeting

The inspector met with licensee representatives (denoted in the Persons Contacted paragraph) at Clinton on May 23, 1985. The inspector summarized the scope and findings of the inspection. The probable contents of the report were discussed with licensee personnel and no proprietary information was identified.