

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-461/95010

Docket No. 50-461

License No. NPF-62

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

Facility Name: Clinton Power Station

Inspection At: Clinton, Illinois

Inspection Conducted: July 14 through July 25, 1995

Inspectors: C. Phillips, Lead Inspector
J. D. Smith
P. Louden

Approved By: /s/H. B. Clayton
H. B. Clayton, Chief
Reactor Projects Branch 1

8/24/95
Date

Inspection Summary

Inspection July 14 through July 25, 1995 (Report No. 50-461/95010(DRP))

Areas Inspected: Announced inspection by three regional inspectors in the Self-Assessment area. The inspection was conducted utilizing portions of Inspection Procedure 40500 to ascertain whether self-assessment was effectively performed by the licensee.

Results: Based on the items inspected, overall performance in self-assessment was considered good. There were no violations or deviations.

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EXECUTIVE SUMMARY

The licensee's ability to identify and trend problems was excellent. The strength in this area was the audits, surveillances, and trends developed by the Nuclear Assessment Department. Self-assessment performance of the individual departments was mixed and predominately reactive. The effectiveness of the Facilities Review Group and the Nuclear Review and Assessment Group was good.

The licensee's ability to resolve and prevent problems was good. The corrective actions program was effective. However, several challenges were identified that were contributors to repetitive and long term equipment problems. The general theme to those challenges was the prioritization of routine work.

DETAILS

1.0 IDENTIFICATION

The identification of problems was considered excellent. Collectively, the use of condition reports; radiological deficiency reports; audits, surveillances, and trending by the Nuclear Assessment Department (NAD); audits and reviews requested by the Nuclear Review and Audit Group (NRAG); and a limited number of self-assessments by individual departments identified most problems and problem trends. The performance of audits, surveillances, and trending by NAD was a strength. This was an important component of the licensee's overall problem identification process because self-assessment performance of the line organization was mixed.

1.1 Effective Condition Report (CR) Program

The CR program was effective in the identification of problems. The inspectors reviewed a list of CRs for the last six months and performed an in depth review of about 30 CRs. The threshold for writing a CR was good. The inspectors were not made aware of any problems through plant walkdowns or interviews that were not identified by a CR. The Nuclear Assessment Department (NAD) performed routine audits and surveillances of the CR program. The inspectors reviewed the most recent surveillance and found it contained thorough, critical findings. Another NAD audit contained survey results that showed two-thirds of those surveyed were either reluctant or somewhat reluctant to write a CR. The inspectors interviewed twelve licensee employees including engineers, maintenance workers and operators, and none indicated a reluctance to write a CR.

1.2 Effective Radiological Deficiency Report Program

Overall, the use of Radiological Deficiency Reports (RDRs) appeared to be effective. The RDR system was used in conjunction with the CR system. The focus of RDRs was to trend low level problems. RDRs were generated by station workers with assistance from the Radiological Protection (RP) department.

The inspectors reviewed selected RDRs written during the past eighteen months. The threshold for reporting problems was found to be very low and any problems which appeared to be repetitive or of a more significant nature were additionally reported through the CR system. The inspectors also found RDRs were assigned to appropriate departments for resolution with corrective actions reviewed by RP department personnel.

1.3 Excellent Nuclear Assessment Department Audits, Surveillances, and Trending

The identification of problems by NAD audits, surveillances, and trending was considered a strength. Audits were thorough and had good scope. The inspectors interviewed two lead auditors. The interviews indicated plant staff was generally receptive to NAD findings and observations. The inspectors also observed good communication and

cooperation between the NAD and plant staff. NAD conducted statistical analysis of CRs and published declining and adverse performance trends in a monthly report.

1.4 NRAG and Facility Review Group (FRG) Were Effective

The NRAG was effective in the identification and resolution of problems affecting plant safety. The inspectors reviewed NRAG meeting minutes for 1995 and interviewed two subcommittee members. Several problems were documented in NRAG meeting minutes. One such problem involved inadequate control of the engineering work request system. The inspectors verified corrective action plans were in place to address the problem areas.

The inspectors reviewed FRG meeting minutes and attended the weekly FRG meeting. The FRG appeared to be effective in the identification of problems through the review of select completed condition reports.

1.5 Departmental Self-Assessment Performance was Mixed

The performance of the individual departments in identifying and correcting problems was mixed. Operations had no effective self-assessment program; radiation protection and engineering performed mostly reactive programmatic assessments; and maintenance had limited but proactive assessments.

The operations department had no effective self-assessment program. The required actions of operations Standing Order 086, "Operations Department Self Assessment Program" assessed only a small segment of operations performance. The information obtained from the performance of Standing Order 086 was neither documented nor trended. Operations management indicated that little was done with information provided to them via trending reports from NAD. The licensee performed good reactive self-assessments of events that occurred in the control room. For example, the unit automatically shutdown in January 1995 during a valve line-up on a feed water heater. The licensee determined that the event was caused by weaknesses in a procedure and in operator training. The procedure was revised and the operators were trained appropriately.

Radiation protection (RP) self-assessments were effective and timely based on the inspectors' review of several examples. The RP department performed self-assessments of various programmatic areas for the last few years such as tagging of radioactive material, posting verifications, and radioactive material barrel control. Many of the topical areas assessed appeared to be in response to problems documented in RDRs. However, a scheduled plan existed for future self-assessments focused on selected areas determined by RP department management.

Engineering department self-assessments were limited. The engineering department formerly had an assessment group that was moved under the direction of NAD. The licensee had no plan to perform internal engineering department assessments on a routine basis. The licensee published a monthly review of performance indicators and a quarterly material condition monitoring report. There were engineering assessments performed to address specific areas such as, organizational

changes from re-engineering activities, maintenance rule status and engineering work request (EWR) status.

The maintenance departments were proactive in implementing programs to monitor performance. The programs were still immature in that some of the information gathered was not trended and there was no plan to perform future assessments. However, these programs had the potential to identify problems at a low threshold.

The maintenance departments recently completed a self-assessment that included reviews by industry peers. The assessment identified programmatic problems with pre-work walkdowns, pre-job briefs, and enhancements needed to field supervisor roles. A corrective action plan was established for the assessment of findings. Other implemented initiatives included establishing coaching expectations for supervisors and the use of personnel evaluations in the field to identify performance problems. Also, the licensee recently changed the method to identify rework which should lead to earlier detection of maintenance problems.

2.0 RESOLUTION AND PREVENTION

Licensee controls to resolve and prevent problems were effective. The inspectors reviewed about 30 CRs and identified that the root cause analyses performed and corrective actions implemented were good. However, several challenges to the corrective actions program were noted. These challenges were contributors to repetitive and long term equipment problems.

2.1 Generally Effective Corrective Action Program

The Corrective Action Review Board (CARB) was effective in the review and evaluation of CRs, root cause analyses, and corrective action implementation. This conclusion was based on the inspectors' review of CRs, NAD audits and surveillances, and FRG and NRAG meeting minutes, and on observation of a CARB meeting. However, the CARB did not always have current trend data available for the condition reports reviewed. Reliance on memory could lead to a failure to recognize the significance of negative trends and the acceptance of corrective actions that may not fully resolve the problem.

No representatives from the maintenance or radiation protection departments were routinely involved with the CARB's function. Interviews with maintenance management indicated that this lack of representation did not have any effect. However, interviews with RP staff and the inspectors' independent review of CRs, indicated the RP department was not involved in the problem resolution process for some items which had radiological consequences. For example, RP was not involved in the corrective actions regarding a sump to sump transfer of water in the turbine building where the discharge hose came loose and low level contaminated water was spilled. RP personnel were involved in the immediate actions to control the spill but not in any subsequent actions.

The inspectors' review of the RDR program revealed neither the CARB nor the Facility Review Group (FRG) reviewed RDRs unless a condition report was written. The lack of oversight by one of these groups could allow negative trends or events to not receive the appropriate level of management attention. RDR's were overviewed by the NRAG which met once per quarter, but the NRAG was only required to meet every six months.

2.2 Setting Priorities a Challenge to the Corrective Action Program

There were some challenges to the licensee's corrective actions programs. Work prioritization was a common theme.

The licensee was not effective at prioritizing and managing the backlog of engineering work requests (EWRs). A licensee assessment of the EWR process identified several problems and a corrective action plan was implemented.

Engineering was slow in implementing CR correction actions. For example, a trend report for January through June 1995 showed an average of approximately 13 condition report corrective actions that were overdue daily and an average of 10 CRs a month were extended. The inspectors reviewed repetitive extensions for some corrective actions. The lack of timeliness in implementing corrective actions contributed to equipment failures or operating problems which negatively impacted plant performance. Two recent examples were the failure of an emergency diesel generator bearing due to an oil leak that had existed for years and the overflow of a radwaste tank which had inoperable level indication and a blocked overflow line. The first event was discussed in Inspection Report 50-461/95003. The second event will be discussed in Inspection Report 50-461/95011.

Acceptance of degraded equipment conditions by operators and other plant personnel contributed to delays in correcting some problems. Because some problems were accepted, they got little attention when engineering and maintenance work were prioritized. Some of these problems were workarounds which likely would have been resolved more quickly had they been recognized as being significant.

3.0 EXIT MEETING

The inspectors met with licensee representatives at the Clinton Power Station on July 25, 1995, to summarize the purpose, scope, and findings of the inspection. The inspectors discussed the likely information content of the inspection report with regard to documents or processes reviewed during the inspection. During the exit meeting, the licensee personnel were asked to identify any proprietary information or material obtained during the inspection. The licensee did not identify any proprietary information and no documents or processes reviewed during the inspection were identified as proprietary.

Persons contacted:

Illinois Power Company

- * J. Cook, Vice President, Clinton Power Station
- * R. Morgenstern, Manager, Clinton Power Station

- * W. Bousquet, Director, Maintenance and Technical Training
- * M. Kiel, Supervisor, Operations Support
- * D. Korneman, Director, Plant Engineering
- * J. Langley, Director, Engineering Projects
- * J. Miller, Manager, Nuclear Station Engineering Department
- * K. Morris, Director, Plant Technical
- * A. Mueller Jr., Director, Plant Support Services
- * J. O'Brien, Supervisor, Engineering Assessment/ISEG
- * J. Sipek, Engineer, Maintenance Planning
- * M. Stickney, Supervisor, Licensing
- * D. Waddel, Director, Resource Management
- * R. Wyatt, Manager, Nuclear Assessment
- * P. Yocum, Director, Nuclear Assessment

U. S. Nuclear Regulatory Commission (USNRC)

- * C. Phillips, Resident Inspector, DRP
- * J.D. Smith, Reactor Inspector, DRS
- * P. Loudon, Reactor Inspector, DRSS
- * M. Jordan, Chief, Operational Program Section, DRS

Other licensee persons were contacted during the inspection.

* Denotes those present at the exit meeting on July 25, 1995.