

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-461/94016(DRSS)

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 Site, Clinton, Illinois

Inspection Conducted: October 3-7, 1994

Inspectors: *Cynthia D. Pederson*
D. W. Nelson
Radiation Specialist

11/10/94
Date

Approved By: *Cynthia D. Pederson*
Cynthia D. Pederson, Chief
Reactor Support Programs Branch

11/10/94
Date

Inspection Summary

Inspection on October 3-7, 1994 (Report No. 50-461/94016(DRSS))

Areas Inspected: Routine announced inspection of the radiation protection program, including: organization, management controls, planning and scheduling, audits and surveillances, and maintaining occupational exposures ALARA (IP 83750). Also included in this inspection was a review of the actions taken to resolve previous inspection followup items (IFI).

Results: The radiation protection program appears to be effective in controlling radiological work and in protecting the public health and safety.

However, the licensee has been ineffective in fully implementing the requirements of the source control procedure.

Program strengths were identified and include improved housekeeping in the generally accessible areas of the auxiliary and radioactive waste buildings and the licensee's initiatives to improve outage planning and drywell access control.

DETAILS

1. Persons Contacted

- * C. Alsasser, Director, Planning and Scheduling
- * W. Bousqurt, Director, Plant Support Services
- * R. Campbell, Health Physics Supervisor
- * J. Cook, Vice President, Clinton Power Station
- * M. Dodds, Supervisor, Radiological Operations
- * L. Everman, Director, Radiation Protection
- * G. Kephart, Supervisor, Radiological Support
- * D. Korneman, Director, NSED
- * J. Langley, Director, Engineering Projects
- * R. Morgenstern, Manager, Clinton Power Station
- * R. Phares, Director, Licensing
- * M. Reandeau, Licensing Specialist
- * R. Weedon, Assistant Director, Radiation Protection

- * M. Miller, Senior Resident Inspector

The inspectors also interviewed other licensee and contractor personnel during the course of the inspection.

* Denotes those present at the exit meeting on October 4, 1994.

2. General

This inspection was conducted to review aspects of the licensee's radiation protection program. The inspection included tours of radiation controlled areas, auxiliary and radwaste buildings, observations of licensee activities, review of representative records and discussions with licensee personnel.

3. Licensee Action on Previous Inspection Findings (IP 83750)

(Closed) Inspection Followup Item (IFI) No. 461/92018-03:

The IFI addressed problems with maintaining the operability of process and effluent monitors. Since that inspection, the operability record of the instruments noted in the inspection report has been excellent. Even rarely used instruments (liquid release monitors) are maintained and routinely tested for operability. This item is closed.

4. Organization and Management Controls (IP 83750)

The inspectors reviewed the licensee's organization and management controls for the radiation protection (RP) program including organizational structure, staffing, and delineation of authority used to implement the program, and experience concerning self-identification and correction of program implementation weaknesses.

Staffing within the radiation protection department has remained stable. One supervisor in the Health Physics Support (HPS) group was replaced by a former radiation protection (RP) shift supervisor. The HPS routinely provides health physics technical assistance to the RP operations group.

There have been reports of minor communications problems between the two groups in the past and the new supervisor's familiarity with both groups has helped to alleviate some of those problems.

No violations or deviations were identified.

5. Outage Planning (IP 83750)

The Outage Planning group conducted a study to determine if the concerns raised by the NRC following the last refueling outage and recent maintenance outages were valid. Those concerns dealt with lack of adequate planning for emergent work, inflexibility in the computer driven master outage schedule and difficulties associated with "B" category (moderate radiological risk) jobs. The study concluded that emergent work had always been a real problem, too much emergent work had been approved during the last refueling outage and trying to coordinate the work had been nearly impossible. The study further concluded that the master schedule needed flexibility, and work coordination and planning for "B" work needed improvement.

As a result of the study a number of recommendations were proposed to deal with each specific area of concern. Each proposed corrective action (recommendation) was assigned a coordinator and given a specific date for completion. The corrective actions taken will be monitored during the next refueling outage.

No violations or deviations were identified.

6. Audits, Surveillance and Self Assessments (IP 83750)

The inspectors reviewed the results of a Nuclear Assessment (NA) surveillance conducted during Maintenance Outage (MO)-5. The surveillance included observations of RP activities during the outage and the licensee's program for controlling access to the drywell. Previous inspection reports have documented weaknesses concerning the narrow focus of NA surveillances on procedural adherence issues. The review indicated that the NA group had broadened its focus to include all aspects of the licensee's drywell access control program. This broadening of focus is viewed as an improvement.

The surveillance concluded that MO-5 was a well planned and effectively executed outage. However, some aspects of the access control program however were not effectively communicated to the workers. In addition, workers were confused about the role dose control cards played in access control, pre-job briefs were held in areas where the noise levels were high and workers had some difficulty hearing those briefings and early in the outage there was some confusion about what group or groups were performing specific jobs at specific times in the drywell. In general, all of the problems noted appeared to have been a result of poor communications between work groups.

NA's approach to ensuring that the deficiencies identified in the surveillance are addressed and the corrective actions taken in response to problems noted in the surveillance will be monitored during future inspections.

No violations or deviations were identified.

7. Transportation (IP 86750)

The inspector reviewed the paperwork generated for three of the more than 50 shipments of radioactive materials and waste transported from the facility since January 1, 1994. No violations of state or federal requirements were noted indicating that the licensee continues to have an excellent transportation program.

No violations or deviations were identified.

8. Maintaining Occupational Exposure ALARA (IP 83750)

The inspector reviewed the licensee's program for maintaining occupational exposures ALARA including ALARA group staffing and qualifications; changes in ALARA policy and procedures and their implementation; worker awareness and involvement in the ALARA program; establishment of goals and objectives, and effectiveness in meeting them.

Staffing within ALARA remained essentially as described in the last routine inspection report.

The inspector attended a meeting of the ALARA committee. Observations made during the meeting included:

- * The Director of Plant Maintenance is the chairman of the ALARA committee. This has proved to be an excellent idea. Maintenance participation in dose reduction activities have expanded significantly since the Director was named chairman.
- * Dose significant jobs were discussed in some detail at the meeting. Discussions centered around the need for performing the work and the consequences of the work on total station dose.
- * The significance of low dose jobs was discussed. Discussions centered on doses received under departmental generic work permits (low risk work) and how those doses are tracked.

The meeting was well organized and informative. Maintenance participation in the meeting was extensive. In general, the meeting reinforced the perception that management was committed to reducing overall station dose.

No violations or deviations were identified.

9. Source Control (IP 83750)

The licensee continues to have problems implementing the requirements of CPS procedure 1907.20 "Radioactive Source Control, Leak Testing, and Accountability". In the 1993 Nuclear Assessment audit of the radiation protection program (Q38-94-07) the auditors reported that the documentation of source movement and accountability at the station was inadequate. Specifically, the logs (binders or files) used to track the sources were not current and even though all sources were accounted for

their locations were not accurately reported. The audit concluded that the health physics (HP) technicians had not been adequately trained to implement the provisions of the procedure. Since that audit (March 94) HP technicians have been given additional training.

Since that audit, however, there have been a number of incidents, described in Condition Reports (CR), in which individuals failed to comply with specific provisions of the procedure. Those incidents include:

- * April 28, 1994, CR noted that a Strontium/Yttrium-90 (0.5 microcuries) had been lost.
- * June 10, 1994, CR noted that the door to the whole body counting room had been left unlocked and the whole body counter post calibration check source had been left unattended.
- * September 10, 1994, CR noted that a source locker had been found unlocked. No sources were missing.
- * September 27, 1994, CR noted that a key to a source locker had been found on a table adjacent to the locker. The locker was locked and no sources were missing.
- * September 27, 1994, CR noted that a gamma calibration source had not been properly secured. The source had been secured electronically (key) but not mechanically (lock).
- * October 5, 1994, the licensee discovered that two new sources had been stored in a locker and the log had not been updated and a physical inventory of all of the sources in the locker had not been conducted. Both are requirements. As a result, the inventory did not match the actual number of sources present.

The licensee had taken corrective actions following each incident. The actions included naming a new manager of the health physics support group, the group responsible for many of the sources; retraining individuals who work with the sources; sending memoranda to individuals working with the sources detailing the requirements of the procedure; and taking disciplinary action against individuals involved in the incidents.

The licensee, however, has had some difficulty in determining the root cause or causes for the incidents. Each incident had been an isolated event with different individuals failing to comply with separate distinct provisions of the procedure. Retraining and/or sending memoranda to effected parties failed to prevent further events. Whether disciplinary action works as a deterrent remains to be seen. The concern remains, however, that although the safety significance is low, the sources are typically very low activity check sources, these incidents continue and the licensee has been unable to take effective corrective actions. For this reason the licensee's progress toward preventing further incidents will be monitored.

No violations or deviations were identified.

10. Plant Tour (IPs 83750, 84750)

During a tour of the turbine, auxiliary and radwaste buildings the inspectors noted the following: postings, labeling and radiological controls in the auxiliary and radioactive waste buildings were in accordance with regulatory and licensee procedural requirements and housekeeping in the readily assessable areas of the auxiliary and radioactive waste buildings and in radiologically controlled areas (behind closed doors) of the same buildings had improved.

No violations or deviations were identified.

11. Exit Interview (IPs 83750, 86750)

The inspector met with licensee representatives (denoted in Section 1) at the conclusion of the inspection on October 7, 1994, to discuss the scope and range of the inspection.

During the exit interview, the inspector discussed the likely informational content of the inspection report with regard to documents or processes reviewed by the inspector during the inspection. Licensee representatives did not identify any such documents or processes as proprietary. The following were specifically addressed at the exit meeting.

- a. Outage planning and scheduling (Section 5)
- b. Transportation program (Section 7)
- c. Source control issues (Section 9)
- d. Housekeeping (Section 10)
- e. NA surveillance of MO-5 (Section 6)