U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report Nos. 50-373/93039(DRSS); 50-374/93039(DRSS)

Dockets No. 50-373; 50-374 License Nos. NPF-11; NPF-18

Licensee: Commonwealth Edison Company
Post Office Box 767
Chicago, IL 60690

Facility Name: LaSalle County Station, Units 1 and 2

Inspection At: LaSalle County Station, Marseilles, Illinois

Inspection Conducted: December 13 through 17, 1993

Inspector: Patrick L. Louden 1/6/94
Patrick L. Louden
Radiation Specialist
Date

Approved By: James E. Foster for 1/6/94
William G. Snell, Chief
Radiological Programs Section 2
Date

Inspection Summary

Inspection on December 13 through 17, 1993 (Report No. 50-373/93039(DRSS); 50-374/93039(DRSS))

Areas Inspected: The focus of this inspection was a review of the implementation and status of corrective actions taken by the station in response to several recent radiological protection problem areas identified by the NRC. This inspection also included a review of recent radiological occurrences and the station source term reduction program.

Results: An event involving a violation of NRC requirements was identified; however, enforcement discretion will be applied to the event since the root causes were similar to other previously identified concerns and the licensee is still implementing corrective actions to address these concerns. The station is continuing to implement broad scope changes to address multiple radiation protection (RP) concerns at the station. The short term effectiveness of these actions appeared to be adequate however, long term effectiveness is still in question. The station is continuing with its plans to begin zinc injection in Unit 1 in January 1994.

DETAILS

1. Persons Contacted

Licensee staff

*L. Bryant, Radiation Protection Training Staff
*R. Crawford, Superintendent, Work Control
*M. Cray, Master, Instrument Maintenance
*M. Friedmann, Technical Lead Health Physicist
*J. Gieseker, Manager, Site Engineering and Construction
*S. Harmon, Supervisor, Training Department
*K. Kociuba, Master Electrician, Electrical Maintenance
*J. Lockwood, Supervisor, Regulatory Assurance
*E. Martin, Director, Station Quality Verification
*E. McVey, Regulatory Assurance
*T. Nauman, Master, Mechanical Maintenance
*P. Nottingham, Supervisor, Chemistry Department
*M. Reed, Superintendent, Technical Services
*M. Santic, Superintendent, Maintenance Department
*J. Schmeltz, Superintendent, Operations
*B. Schrum, Senior Radiation Protection Technician
*T. Shaffer, Executive Assistant to the Site Vice President

Nuclear Regulatory Commission

*C. Phillips, Resident Inspector

Illinois Department of Nuclear Safety

*R. Zuffa, Resident Engineer

The inspector also interviewed other licensee personnel in various departments in the course of the inspection.

*Indicates those present at the exit meeting on December 17, 1993.

2. Changes in Radiation Protection Departmental Organization (IP 83750)

As part of the corrective actions taken in response to recent radiation protection (RP) problems at the station, the licensee is planning to perform significant re-assignments within the RP department. The inspector discussed the changes with the Health Physics Services Supervisor (HPSS) which are to be effective January 3, 1994. A brief description of the changes are listed below:

Lead Operational HP to RP Performance Improvement Coordinator

Lead Technical HP to Lead Operational HP

ALARA Coordinator to Unit 1 HP

Radiation Work Permit (RWP) Coordinator to Contamination Control Coordinator

Contamination Control Coordinator to RWP Coordinator

An RP Shift Supervisor to As-Low-As-Reasonably-Achievable (ALARA) Coordinator

An RP Shift Supervisor to Maintenance RP Supervisor

An RP Shift Supervisor to Electrical/Instrument Maintenance and Operations RP Supervisor

Mechanical Maintenance ALARA Coordinator to Contractor ALARA Group

ALARA Engineer to RP Planner/Scheduler

In all, the changes did not involve the elimination of existing positions or removing individuals from the department. As a result of the shuffling, two RP shift supervisor positions were vacated. These positions were anticipated to be filled by the end of January 1994. The effectiveness of the many changes to the department will be reviewed during future inspections.

No violations of NRC requirements were identified.

3. Corrective Actions to Previously Identified Concerns (IP 83750)

The inspector reviewed the licensee's implementation of corrective actions taken to address the multiple NRC concerns discussed in recent NRC Inspection Reports and which were the result of actions taken in response to a recent Escalated Enforcement action.

The licensee formed a special team whose partial charter was to assess the radiation protection issues which faced the station. These issues ranged from RP departmental effectiveness to interdepartmental relations and procedural compliance. Over fifty items were identified by the team and these items were assigned to cognizant management personnel for implementation or resolution. The team met with assigned managers to assess the actions taken toward their assigned action items and detailed their review in a report issued on December 20, 1993. Most of the assigned items were in the process of being addressed and continued attention to the teams action items is necessary to ensure completion. This item is being tracked by a previously initiated inspection followup item.

The inspector discussed with station management the progress of the Corrective Action Management (CAM) program. Several hundred minor corrective items had been identified by station managers and were being corrected either on the spot or through a newly formed minor maintenance group. Many of these items addressed housekeeping concerns. The

program appeared to be effective in correcting problems for the short term but long term effectiveness in changing worker cultural habits still is under assessment.

No violations of NRC requirements were identified.

4. Radiological Occurrences (IP 83750)

The inspector reviewed the circumstances and licensee investigation of an event which involved a station laborer who received an administrative overexposure on December 11, 1993.

During the day shift on December 11, 1993, a station labor work crew entered the Unit 2 drywell under RWP #93-30895A to clean the under vessel area in preparation for the Unit 2 startup. A radiation protection technician (RPT) was assigned to the job to provide continuous coverage during the cleanup activities. The workers were wearing normal protective clothing (PCs), plastic rain suits and respirators. The electronic dosimeter alarm set points for the job were 100 mrem (1 mSv) dose and 600 mrem (6 mSv/hr) dose rate.

The RPT performed an initial entry survey and identified the highest dose rate in the area to be 200 mrem/hr (2.0 mSv/hr). The workers subsequently entered the under grating area and accomplished their work. One worker continued his activities longer than the rest of the crew and was in the area approximately forty minutes. While the individual was doffing his PCs he noticed that his electronic dosimeter was reading 131 mrem (1.31 mSv). He also noticed that the alarm was not functioning on the dosimeter. The worker immediately left the area and contacted the RPT on the scene and the RP office.

The licensee's followup investigation into the event revealed that the dosimeter functioned properly with the exception that the speaker was not working. The unit could not provide an alarm to indicate an alarm set point had been reached. The licensee performed followup verification surveys of the area which resulted in no large discrepancies to the RPTs survey with the exception of an isolated hot spot under a drain line. The highest recorded dose rate recorded by the electronic dosimeter was 900 mrem/hr. It appeared that the worker could have come in proximity to the hot spot for a very short period of time which would account for the recorded high dose rate. However, based on the length of time the worker was in a 200 mrem general area dose field, the administrative overexposure more than likely occurred due to the length of time the worker spent in the area.

The inspector conducted interviews with the RPT assigned to the job and other station RPTs to determine if time keeping is routinely performed during job coverage. Aggressive time keeping was not routinely performed by the RPTs. The results of the interviews indicated an over-reliance on electronic dosimeter alarms by not only the specific RPT but by most RPTs in the department. The inspector discussed these observations with station management at the exit meeting (Section 6).

No violations of NRC requirements were identified.

5. Maintaining Occupational Exposures ALARA (IP 83750)

The licensee was approaching the completion of the current Unit 2 outage (L2R05). Accumulated exposures for the outage totaled 492 person-rem (4.92 person-Sieverts). This total is a little higher than the anticipated goal of 450 person-rem (4.5 person-Sieverts). The station exposure total for 1993 will be about 850 person-rem (8.50 person-Sieverts). The licensee has performed adequately during the current refueling outage with respect to dose reduction. "Lessons learned" and interdepartmental cooperation needs to improve in order for the station to realize improved ALARA program effectiveness during the next Unit 1 outage (Spring 1994).

The inspector discussed the licensee's source term reduction program with station management. The station had lost their source term reduction project manager to another employer and the position had yet to be filled during the inspection period. The inspector emphasized the importance of the position and the need for the station to appoint a replacement as soon as possible.

Through discussions with cognizant licensee staff the inspector reviewed plans for the initiation of depleted zinc injection to begin in January 1994 in Unit 1. The temporary skid arrived during the inspection and is scheduled to be operational by the end of January 1994. Based on discussions with engineering staff, there appeared to be some communication problems with respect to the full analytical methodologies which will be performed at the station to monitor the zinc addition's effectiveness. The inspector discussed this at the exit meeting and was informed by station management that due to the loss of the former source term reduction project manager, some lines of coordination and communication were weakened. However, temporary replacement individuals had been assigned to monitor the system's implementation until a new source term project manager could be appointed.

No violations of NRC requirements were identified.

6. Exit Meeting

The scope and findings of the inspection were discussed with licensee representatives (Section 1) at the conclusion of the inspection on December 17, 1993. Licensee representatives did not identify any documents or processes reviewed during the inspection as proprietary. Specific items discussed at the meeting were as follows:

- The review of the administrative overexposure and the appearance of an over-reliance by RPTs on electronic dosimeter alarms.

- The status of the corrective actions the station has taken thus far to address multiple radiation protection concerns.

- The need to fill the vacant source term reduction project manager position to provide continuity and oversight of the source term reduction program.