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U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION III

Report No. 50-373/80-07

Docket No. 50-373 License No. CPPR-99

Licensee: Commonwealth Edison Company
P.O. Box 767
Chicago, IL 60690

Facility Name: LaSalle County Nuclear Power Station, Unit 1

Inspection At: LaSalle Site, Seneca, Illinois

Inspection Conducted: February 6-8, 1980

Inspectors: D. E. Miller — 3-6-80

L. J. Hueter — 3-6-80

Approved By: W. L. Fisher, Chief — 3-6-80
Fuel Facility Projects and
Radiation Support Section

Inspection Summary

Inspection on February 6-8, 1980 (Report No. 50-373/80-07)
Areas Inspected: Routine, announced preoperational inspection of the radiation protection program; including: qualifications; radiation protection procedures; respiratory protection program; radioactive materials shipping procedures; and facilities. The inspection involved 43 inspector-hours on site by two NRC inspectors.
Results: No items of noncompliance or deviations were identified.

DETAILS

1. Persons Contacted

*G. Diederich, Assistant Superintendent for Operations
*F. Lawless, Rad/Chem Supervisor
*G. Myrick, Lead Health Physicist
*W. Huntington, Technical Staff Engineer
*J. Williams, Test Engineer
*E. Stevak, Quality Assurance Engineer
L. Berry, Engineering Assistant/Nuclear Technician (Rad/Chem)
J. Lewis, Rad/Chem Foreman
B. Nelson, Rad/Chem Foreman

*Denotes those present at the exit interview.

2. General

This inspection, which began at 9:30 a.m. on February 6, 1980, was conducted to examine progress made in development of radiation protection procedures and the radioactive material shipping and respiratory protection programs, and to review qualifications of certain licensee personnel.

During the inspection, the inspectors toured several areas under construction.

3. Organization

Since the last inspection (50-373/80-01), L. Berry has resigned from his position as an Engineering Assistant/Nuclear Technician with the Rad/Chem organization and has terminated employment with Commonwealth Edison.

4. Qualifications

During a previous inspection (50-373/79-25) the inspector stated that the Rad/Chem Supervisor had been promoted to Assistant Technical Staff Supervisor and the Chemist was promoted to Rad/Chem Supervisor.

According to FSAR question 422.11 and FSAR Table 13.1-1, the Rad/Chem Supervisor shall meet ANSI N18.1-1971 requirement for Radiochemistry, and Regulatory Guide 1.8, Revision 1, requirements for Radiation Protection Manager (RPM). During this inspection, the inspectors reviewed the Rad/Chem Supervisor's qualifications and found that the person currently holding the job title has a strong chemistry and radiochemistry background, but has not held a position in which his

primary duties included applied radiation protection. A licensee management representative stated that this person had been routinely associated with radiation protection practices while working as a radiochemist, and that it was his considered opinion that the Rad/Chem Supervisor meets the RPM requirements. This opinion was not shared by the inspectors.

- The inspectors discussed with the licensee the need to submit the Rad/Chem Supervisor's qualifications to NRR, who will determine whether the RPM requirements are met. The licensee stated that either the qualifications would be submitted as discussed or other options would be considered and submitted.

5. Radioactive Material Shipping Program

The inspector reviewed the following procedures:

LRP 1520-1	Revision 1	Offsite Shipment of Radioactive Material
QA Procedure No. 13-52	Revision 0	Preparation and Shipment of Radioactive Material

The inspector noted that most of the regulatory requirements listed in 10 CFR Part 71 and 49 CFR Parts 170-189 are addressed in these procedures. The quality assurance procedure is an operationally oriented document which includes checklists for documenting completion of several of the regulatory quality assurance requirements. The radiation protection procedure, which contains requirements not included in the quality assurance procedure, is written in the form of a standard rather than an operational procedure.

During the review, the inspector found it difficult to determine:

a. Whether all the requirements are addressed in the procedures,

b. Who has programmatic responsibilities for some of the tasks and

c. Whether all the required records will be generated and reports made.

As a result of this review, the inspector discussed with the licensee the need for a management controlled audit of activities associated with the packaging and shipping of radioactive materials. The licensee stated that they will perform the audit before fuel load.

6. Respiratory Protection Program

The respiratory protection program was reviewed to determine its current status and for its consistency with requirements of 10

CFR 20.103 and Regulatory Guide 8.15. Also, the inspectors reviewed an IE Bulletin and two IE Circulars for applicability to the licensee's respiratory protection program. General areas reviewed included: training; medical examinations; fitting of respirators; procurement, issuance, and maintenance of approved respiratory equipment; air sampling and determination of MPC fraction; bioassays to evaluate the effectiveness of the program to limit intake of airborne radioactivity; and written procedures governing the respiratory protection program.

It was noted that most of the procedures or planned revisions of procedures related to the respiratory protection program were either in draft stage or in process of station on-site review. The following procedures are in that status unless indicated otherwise:

LRP Procedure No.	Revision	Title
1310-1	0	Maintenance and Care of Respiratory Protective Equipment
1310-3	2	Self-Contained Breathing Apparatus
1310-4	0	Regulation and Use of Radiological Respiratory Protective Equipment
1310-5	0	Monthly Inspection: SCBA
1310-6	1	Principle of Operation of Air-line Supplied Air System
*1310-9	0	Charging of Air Cylinders for SCBA
1310-10	3	Operation and Use of the Respirator Fit Test Facility
1310-11	1	Respiratory Protective Equipment Quality Inspections
1340-4	2	Personnel Monitoring for Internal Radioactive Contamination
**1340-5	0	WBC Daily Routine Operation
**1350-1	0	Operation and Use of the Draeger Multi-Gas Detector Model 31

1350-2	1	Operation and Use of the MSA Model 2H Explosimeter
1350-3	0	Operation and Use of the MSA Model 53 Gascope
1350-4	0	Calibration of MSA Model 2H EXplosimeter
1350-5	0	Operation and Use of the Teledyne Oxygen Analyzer Model 320P-4
1350-10	0	Operation and Use of the MSA Filter Resistance Tester
**1350-26	0	Air Sampling Instruments
1360-6	1	Air Sample Surveys

*Not drafted
**Completed and approved

The following matters were discussed with licensee personnel during the inspection:

a. Responsibility for the respirator program has not been vested in one individual as specified in the Regulatory Position of Regulatory Guide 8.15 and its reference to Section 12.1 and 3.1.5 of NUREG-0041.

b. The requirement for the licensee to provide written notification to the Director of the NRC Region III Office of Inspection and Enforcement at least 30 days before the first use of the respiratory protective equipment under the provision of 10 CFR 20.103 (as required in subparagraph (e) of that paragraph).

c. The licensee has only one respirator fit test unit; a Frontier Enterprise Model FE 259 that has an upper torso test chamber and utilizes a DOP test atmosphere. Most of the personnel at the plant have already been tested, with each test taking about 20 minutes. The inspectors pointed out the bottleneck that can result with a single unit during a refueling outage, considering the large influx of contractor personnel and the possibility of equipment breakdown.

d. It was noted that the training program provided to users of respiratory equipment specifies that only black hose will be used for breathing air in conformance with a color coded

hose policy at the plant. However, a number of red breathing air hoses which had been supplied with one type of NIOSH approved respiratory equipment were observed. Conformance of policy, training, and equipment made available is needed.

e. Instructions should caution those individuals who clean, sanitize, inspect, and package face masks and place them in storage trays to limit the quantity placed in a tray to preclude the mask taking a "set".

f. The individual Mask Card used by those issuing masks to determine, among other things, the calendar quarter in which the last annual training (including mask training) was received and that an annual medical approval was obtained should specify the actual date of the last medical approval to preclude a potential mixup in those cases where the date of last medical approval may differ significantly from the date of the last training.

g. The inspectors noted that the licensee's procedures appropriately specify that a whole body count or bioassay evaluation is to be conducted on the termination of employment of any individual who has worked in a radioactive material area or in an airborne activity area. The inspectors noted that experience has shown that, unless a good system with "teeth" is established, problems will be encountered with contractor personnel and others terminating employment and leaving the facility without benefit of the procedurally required whole body count or other bioassay.

The licensee has a Bristol Compressor system which can simultaneously fill two breathing air bottles in about two minutes. The unit operates off any 440 volt welding receptical and can be lifted with a fork lift for easy transport within plant or onto a truck for outside transport. The unit has moisture separators, filters, and both carbon dioxide and moisture monitors. It provides double pressure control of the bottles being filled. In addition, the bottles are filled in a sheet metal tank filled with water as a safety precaution.

The licensee has provided for periodic sampling and analysis of air from the plant service air system to meet grade E specifications per CGS G-7.1-1973. This specification is more restrictive than the criteria required for breathing air.

With respect to IE Bulletin No. 78-07, concerning protection afforded by certain air-line respirator equipment and supplied-air hoods, it was learned that the licensee has no air-line supplied-air respirators (either half-mask facepiece or full facepiece) operated in the demand mode, nor does the licensee plan to obtain any demand mode operated equipment of this type. It was noted that Attachment

C to Procedure LRP 1310-4 needs to be modified to delete reference to demand type supplied-air equipment. The licensee has some supplied-air hoods called "Poly Hood" with NIOSH approval TC-19C-124. However, a protection factor has not been selected since calibrated air-line pressure gauges or flow measuring equipment has not been established to assure an appropriate flow rate to hoods. It was also noted that Attachment C to Procedure LRP 1310-4 under "Respirator Type and Description" currently does not reference supplied-air hoods, nor have procedures been developed for proper operation of supplied-air hoods. The training program for respirator users does not currently cover supplied-air hoods.

With regard to IE Circular No. 79-09 concerning occurrences of split or punctured regulator diaphragms in certain self-contained breathing apparatus, the licensee has four units of the Presur-Pak IIA type of self-contained breathing apparatus. The manufacturer has contacted the licensee and stated that a kit will be supplied (not received yet) to correct the diaphragm system problem. Procedures have not been prepared regarding the need to check the regulator diaphragm before and after use or, in the event a loose or dislodged regulator cover is found, the need to remove the cover and inspect the diaphragm before reassembly. LRP Procedure No. 1310-5 Revision 0, Monthly Inspection: SCBA, was not available for review to see if the monthly inspection includes a check of the regulator diaphragm.

With regard to IE Circular No. 79-15, concerning bursting of high pressure hose and malfunction of relief valve and "O" ring in certain self-contained breathing apparatus, the licensee has no Survival Air Mark I SCBA respiratory equipment, the type in which these problems were identified.

7. Exit Interview

The inspector met with licensee representatives (denoted in Paragraph 1) at the conclusion of the inspection on February 8, 1980.

The following matters were discussed:

a. The purpose and scope of the inspection.

b. The Rad/Chem Supervisor's qualifications as Radiation Protection Manager in accordance with Regulatory Guide 1.8 requirements. The licensee stated that they will submit his qualifications to NRR, who will determine whether the requirements are met. (Paragraph 4)

c. The need to perform a management-controlled audit of the radioactive material shipping program to determine whether all regulatory requirements are addressed. The licensee stated that they will perform the audit before fuel load. (Paragraph 5)

d. The need to designate one individual with overall responsibility for the respirator program. The licensee acknowledged the comment. (Paragraph 6)