

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Reports No. 50-373/85011(DRSS); 50-374/85011(DRSS)

Docket Nos. 50-373; 50-374

Licenses No. NPF-11; NPF-18

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

Facility Name: LaSalle Nuclear Generating Station, Units 1 and 2

Inspection At: LaSalle Site, Marseilles, Illinois

Inspection Conducted: July 10-12, 1985

Inspectors: *G. Brown*
G. Brown
Team Leader

8/5/85
Date

W. Snell
W. Snell

8/5/85
Date

N. Williamsen
N. Williamsen

8/5/85
Date

T. Ploski
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8/5/85
Date

Approved By: *M. P. Phillips*
M. P. Phillips, Chief
Emergency Preparedness Section

8/5/85
Date

Inspection Summary

Inspection on July 10-12, 1985 (Reports No. 50-373/85011(DRSS); 50-374/85011(DRSS))

Areas Inspected: Routine inspection of the LaSalle emergency preparedness exercise, involving observations by eight NRC representatives of key functions and locations during the exercise. The inspection involved 144 inspector-hours onsite by four NRC inspectors and four consultants.

Results: One violation was identified, related to two examples where exercise weaknesses identified in the 1984 exercise were not corrected.

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DETAILS

1. Persons Contacted

NRC Observers and Areas Observed

G. Brown, Control Room (CR), Technical Support Center (TSC), Emergency Operations Facility (EOF)
W. Snell, EOF
K. Lopusser, CR
F. Carlson, TSC
N. Williamsen, Operational Support Center (OSC)
T. Lonergan, OSC
J. MacMillan, Radiological Environmental Monitoring Team
T. Ploski, Corporate Command Center (CCC)

Commonwealth Edison

*N. Wandke, Assistant Vice President, CECO
*G. Diederich, Station Manager
*K. Klotz, GSEP Coordinator
*S. Cooley, Senior Human Factors Engineer, ARD Corporation
*K. Hesse, Management Assistant (Human Factors)
*R. Dwyer, Emergency Preparedness, CECO
*R. Thacker, Environmental Health Physicist, CECO
*T. Greene, Emergency Preparedness Health Physicist, CECO
*W. Wolf, Shift Foreman
*W. Sly, Shift Engineer
*J. Golden, CECO NST/EP Supervisor of Emergency Preparedness
*R. Flessner, Services Superintendent, Dresden
*L. Gerner, Regulatory Assurance Superintendent, CECO
*M. Vonk, Health Physicist, CECO
*C. Sargent, Production Superintendent
*T. Blackmon, NST/EP
J. Deden, CR Controller
W. Collins, OSC Controller
D. Kenealy, EOF Controller
K. Lacari, EOF/Joint Public Information Center Controller
R. Weidner, TSC Controller
L. Literski, TSC Controller
T. Ziakis, OSC Controller
F. Krowzack, OSC Controller
G. Congo, OSC Controller
E. Zaccaria, OSC Controller
J. Bowman, Environs Team Controller
D. O'Keefe, Environs Team Controller
T. Chubb, Post Accident Sample System (PASS) Controller
B. Schnell, CCC Controller
D. Vestal, CCC Controller

*Indicates those present at the July 12, 1985 exit interview.

2. Licensee Action on Previously Identified Items

(Closed) Open Item Nos. 374/84-24-03; 373/84-18-03: The licensee failed to meet the exercise objective of demonstrating post-accident sample collection and analysis capabilities using the HRSS. In the current exercise the licensee was able to obtain and analyze the sample within three hours of the request to collect the sample. This item is considered closed.

(Open) Open Item Nos. 374/84-24-01; 373/84-18-01: There was a lack of procedural guidance regarding the formulation and documentation of adequately detailed followup messages to offsite authorities. This objective was not demonstrated during the current exercise, which involved only utility participation. This item remains open.

3. General

An unannounced exercise of the licensee's Generating Stations Emergency Plan (GSEP) was conducted at the LaSalle County Station on July 10-11, 1985. The exercise involved the utility only with minimal participation by State and local authorities. Only two plant officials were cognizant of the actual date of the exercise up to the final week of the exercise. Security of the date was maintained up to the actual initiation of the exercise. There was no indication that the exercise date was compromised. The exercise tested the licensee's capability to respond to a hypothetical accident scenario. Attachment 1 describes the scenario.

4. General Observations

a. Procedures

This exercise was conducted in accordance with 10 CFR 50, Appendix E requirements using the GSEP, LaSalle Annex to the GSEP, and the station's emergency plan implementing procedures.

b. Licensee Response

The licensee's overall response was generally coordinated, orderly, and timely. Had these events been real, the actions taken by the licensee would have been sufficient to allow State and local authorities to take appropriate actions to protect public health and safety.

c. Observers

Licensee observers monitored and critiqued this exercise along with eight NRC observers and three observers from the Institute for Nuclear Power Operations (INPO).

d. Exercise Critiques

The licensee held a critique following the exercise on July 11, 1985. The NRC critique was conducted on July 12, 1985 at the Mazon Emergency Operations Facility where the preliminary findings were discussed with the licensee.

5. Specific Observations

a. Control Room

Control Room personnel participating in this exercise consisted of a Shift Engineer (SE), a Shift Control Room Engineer (SCRE), and a Control Room Communicator. These participants appeared attentive and professional in their performances. They were diligent in referring to plans, procedures and prints. This resulted in their developing a number of innovative actions which had to be negated by the Controllers in order to maintain the scenario.

The following improper actions were noted:

The Control Room log was not adequately maintained. While the log contained most pertinent data, few entries included the time of occurrence. Reconstruction of the events from these records would have been difficult.

The SCRE failed to alert the SE of deteriorating conditions in the Dry Well in a timely manner. Even though the SCRE studied the RAMTEK display several times during a period when the radiation levels were increasing toward the Emergency Action Level (EAL) for a Site Area Emergency declaration, he took no action to alert the SE.

Based on the above findings, the overall performance by the licensee in this area was acceptable. However, the following item should be considered for improvement:

- . The subject of proper recordkeeping should be included in the emergency preparedness training of Control Room personnel.

b. Technical Support Center (TSC)

The TSC was activated in a timely manner upon declaration of the Alert. The on-call directors responded from various normal worksites. Turnover of responsibilities from the Control Room was smooth and timely. Logkeeping was adequate. Reconstruction of events appeared to be possible from the records.

The following improper actions were observed:

NARS forms were incomplete. Sections for "Message Received," "Message Verified," and "Utility Duty Officer" were not completed.

Information regarding equipment out of service was lacking from the status boards and lists kept in the TSC. This may have contributed to delays in work progress on these items.

Based on the above findings, the overall performance by the licensee in this area was acceptable.

c. Operational Support Center (OSC)

The Operational Support Center was activated in a timely manner, being fully functional within 13 minutes of the directive to activate. The OSC Director was knowledgeable of his responsibilities and managed the OSC in an efficient manner. Briefings of the OSC teams were adequate and the teams were dispatched promptly.

The team directed to collect the HRSS liquid and air samples demonstrated an adequate knowledge of the system and procedure used to collect the samples. Members showed concern for exposure control while enroute to the HRSS location, during sampling and delivery of the samples. The team made constant use of the portable radiation survey meter and utilized remote handling tools and gloves when appropriate.

The following improper actions were observed:

The OSC area was too congested and the noise level too high. At one point the inspector counted 76 individuals in the OSC. It was unlikely that public announcements could be heard over the noise.

Chalkboards and status boards were not utilized. This was particularly important during this exercise since oral forms of communication were difficult because of the noise level. Posting such items as teams dispatched, team tasks, team makeup and designation would have been of value.

Logs and recordkeeping were inadequate. Few details were recorded. Reconstruction of OSC activities from these records would be difficult.

The time from sample count of the post-accident sample to the actual printout of the results was excessive, although the time from the decision to collect the sample to the time the results were available barely met the three hour requirement. It required over 1 hour and 40 minutes from the time the sample arrived at the counting room until a printout of the results was provided. This was apparently due to a software problem which occurred because the software was unable to accommodate this particular method of sample collection.

Good radiological control was not practiced when taking the water sample aliquot. The transfer of a 50 microliter aliquot of the water sample from the shielded container to the dampened filter paper in a petri dish via a shielded syringe over a distance of ten or more feet was performed without the benefit of a catch container or absorbent material underneath. Failure of any portion of the system could have resulted in contamination of the work area.

Failure to properly respond to HRSS alarms resulted in unnecessary delay in sample collection. The HRSS area panel indicated low nitrogen pressure. The HRSS team member erroneously interpreted this to be the result of system flushing during air sampling. Eighteen minutes into the lineup of the HRSS south panel the nitrogen tank was completely exhausted. It was then necessary to replace the tank and extend the purge time another 15 minutes.

The clock on the wall in the OSC ran backwards. This is not professional and could cause confusion during a real emergency.

Based on the above findings, the overall performance by the licensee in this area is acceptable. However, the following items should be considered for improvement:

- . Steps should be taken to reduce the noise level in the OSC. Some suggestions include allowing only necessary conversations which are required to accomplish the OSC mission, confine admittance to the OSC to actual controllers and participants, reduce the number of controllers and observers to a minimum, and conduct team briefings in an area remote from the OSC whenever possible.
- . The subject of proper recordkeeping should be included in the emergency training given to appropriate OSC personnel.
- . The wall clock in the OSC should be replaced.
- . A provision should be included in the HRSS procedure to utilize radiological containments when taking the water sample.
- . The software operating HRSS sample counting should be modified to accommodate all types of PASS sampling methods.

d. Field Monitoring Teams

The environs teams were formed and dispatched smoothly and efficiently. The teams properly conducted complete inventories and operational checks of emergency equipment prior to field use. In the field, the samples taken were properly identified showing location, type, date and time.

The following improper actions were noted:

One environs team did not follow proper procedures for taking dose rate readings. Members failed to use proper protective equipment such as gloves, and did not take readings at 6 inches and 6 feet with open and closed windows.

There was some confusion as to the location of some environmental sample points. For instance, Team #1 was dispatched to Point B-03 which was not on their map, and Team #2 was sent to Point D-03 which was inaccessible with the team vehicle.

Team #2 performed all sampling assignments in a timely and proper manner. However, they were unfamiliar with the GSEP van which was dispatched from Mazon. Team members were unfamiliar with the location of supplies, had difficulty in using the radio, and could not operate the built-in voltage converter for use with the air sampler. This was also an exercise weakness in the 1984 exercise which was not corrected. Therefore, this repeat weakness is in violation of NRC requirements.

The EOF Environs Director did not respond to radio transmissions from the environs teams in a timely manner. This caused some confusion. For instance, when the team would transmit a question it would be a long interval before the Environs Director responded. Since the team was unfamiliar with the radio, they interpreted the silence as radio transmission problems. This distracted them from other tasks.

Based on the above findings, one violation was identified. In addition, the following items should be considered for improvement:

- . Maps and routes used by the environs teams should agree with maps in the emergency response facilities.
- . All communicators should be trained to immediately acknowledge the receipt of a transmission, even though the full response may not be ready until later.

e. Emergency Operations Facility (EOF)

In activating the EOF, numerous tasks, such as establishing access control, testing the microwave system, and verifying the availability of the computer terminals were accomplished prior to the formal activation. This early action provided for a smooth and efficient establishing of control.

In general, the flow of information to the EOF from the other emergency facilities was prompt and thorough. The trending of key parameters such as reactor pressure, level, and containment radiation levels was adequate. The EOF properly gave careful consideration to the possibility of escalating the event to a General Emergency. Several thorough discussions on escalating to a General Emergency were conducted which included trends in containment radiation levels, containment integrity, dose calculations based on projected releases, and potential upgrading of Protective Action Recommendations.

Briefings to the EOF staff were frequent and helpful. The EOF provided good technical support to the TSC on plant problems. The video tapes of simulated TV newscasts were well done and added a new dimension to the exercise by actually introducing some public opinion into the proceedings.

The following improper actions were observed:

The assumption of responsibilities from the CCC was not timely. Responsibilities for protective action recommendations, notifications, and communications were not assumed until 75 minutes after a Site Area Emergency was declared.

Some status boards were not maintained in a timely manner. The Environmental/Meteorological Status Board was filled out only once during the entire exercise. Forecast meteorological data was never entered on the status board. Protective Action Recommendations given to State authorities also were not entered on the boards.

The News Information Center was inadequately manned. It was staffed by only one "coordinator" for over an hour and a half before being reinforced with corporate spokesmen.

Press releases were not disseminated internally in a timely manner. It was about one hour after activation of the EOF before a copy of the press releases issued by the CCC were provided to the Recovery Manager for review.

The CCC failed to inform the EOF of the fact that the utility had transferred several workers offsite for decontamination. This became critical during a news briefing when the subject was brought up and the spokesman knew nothing of it. Licensee credibility likely would have suffered had the event been real. The news briefing in the Joint Public Information Center (JPIC) was sufficiently technical in nature but not in detail. The spokesman was not prepared to satisfactorily give the briefing. He was unable to adequately describe the significance of the "Alert" emergency classification and incorrectly described the "General Emergency" classification. This was an exercise weakness from the previous exercise which was not corrected. This is in violation of NRC requirements.

f. Corporate Command Center

The Corporate Command Center was activated and prepared to perform its function in a timely manner. Control was assumed from the TSC in an orderly and efficient manner. Status boards were well maintained and utilized.

Actions taken by the CCC to assist in mitigating the accident were aggressive and proper. They were able to postulate the probable location of the small break loss of coolant accident (LOCA) within 35 minutes of the occurrence. They gave proper concern to avoid unnecessary over-dilution of boron in the Reactor Coolant System. They effectively used contractors, such as Sargent and Lundy, to help analyze data.

Actions taken by the CCC to protect the public were timely and proper. They closely monitored current and forecast weather, properly projected containment pressure and radiological conditions, and suggested proper Protective Action Recommendations.

The following improper actions were observed:

NARS forms were incomplete. Persons contacted were not documented on the form.

GSEP Section 6.5.1 requires Medical Director authorization (among others) before allowing emergency workers' exposures to exceed established limits. However, the "Medical Director" Implementing Procedure does not address this item among the Director's duties and responsibilities.

Based on the above findings, the overall performance by the licensee in this area was acceptable. However, the following item should be considered for improvement:

- . Adequate guidance should be provided in the "Medical Director" Implementing Procedure for the authorization of emergency workers' exposures.

g. Scenario Comments

LaSalle County Station had little difficulty in responding to this exercise even though it was unannounced. Being unannounced did, however, cause some exercise-unique problems. For example, in order to maintain the security of the exercise date, even the State was not advised. Thus, the State had minimal participation. This resulted in a blind interface between the State and local governments with plant personnel normally assigned to communicate with them. This could have contributed to some of the problems in completing the NARS forms in the various areas.

Other exercise-unique problems observed included:

The RAMTEK display for Dry Well radiation levels indicated units of "KR/HR" versus "R/HR." The values indicated would be correct for "R/HR."

There was unnecessary burden placed on the Shift Engineer when he was directed to produce seven persons to demonstrate evacuation of nonessential personnel.

During the exercise participants frequently used controller message sheets as documents to maintain and trend data. It should be noted that most of these message sheets represent instrument readings, etc. and would not be available during a real emergency. Participants would receive better training if they were required to create their own data from the message sheets, as they would during a real event.

At 1310 there was a report that the EOF RAMTEK was not receiving the same display as in the Control Room and TSC. This was later revised. This possible problem should be followed up by the licensee and corrective action taken if a problem is found to exist.

The following recommendations should be considered for improvement:

- . Assign role players to play the part of the State and local governments in utility-only exercises.
- . Modify the RAMTEK to display consistent radiation units.
- . Avoid tasking emergency response personnel with functions not directly related to their actual duties in a real emergency.
- . Require controllers to reclaim old message sheets when they pass out new ones.

6. Exit Interview

On July 12, 1985, an exit interview with the licensee representatives was held to present the NRC's preliminary findings. The inspector discussed the likely content of the inspection report. The licensee did not identify any of the materials as proprietary or safeguards.

Attachment: Exercise Scenario Narrative Summary