

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report Nos. 50-254/92017(DRSS); 50-265/92017(DRSS)

Docket Nos. 50-254; 50-265

License Nos. DPR-29; DPR-30

Licensee: Commonwealth Edison Company
Opus West III
1400 Opus Place
Downers Grove, IL 60515

Facility Name: Quad Cities Nuclear Generating Station, Units 1 and 2

Inspection At: Quad Cities site, Cordova, Illinois

Inspection Conducted: July 16-17, 1992

Inspectors: T. Ploski 7/24/92
T. Ploski Date

H. Simons 7/24/92
H. Simons Date

Approved By: J. W. McCormick-Barger 7/27/92
J. W. McCormick-Barger, Chief Date
Emergency Preparedness and
Non-Power Reactor Section

Inspection Summary

Inspection on July 16-17, 1992 (Reports No. 50-254/92017(DRSS); 50-265/92017(DRSS))

Areas Inspected: Special, announced inspection of the corrective actions in response to three performance weaknesses identified during the April 1992 emergency preparedness exercise at the Quad Cities Nuclear Generating Station. The inspection involved two NRC inspectors.

Results: No violations, deviations or deficiencies were identified. The licensee's corrective actions were thorough and included: a mini-exercise, involving Control Room Simulator and Technical Support Center staffs; additional training on accident assessment, emergency classification and offsite notification requirements to all onsite emergency organization personnel who may be involved in such activities; procedure revisions; and telecommunications equipment upgrades.

Based on the performances of personnel during the mini-exercise and review of the other corrective actions, concerns regarding the three exercise weaknesses are closed.

DETAILS

1. NRC Observers and Areas Observed

T. Ploski, Control Room Simulator
H. Simons, Technical Support Center

2. Licensee Representatives Contacted

R. Bax, Station Manager
G. Tietz, Technical Superintendent
G. Spedl, Production Superintendent
D. Craddick, Assistant Superintendent - Maintenance
A. Misak, Regulatory Assurance Supervisor
D. Hoogheem, Emergency Planning Coordinator
L. Kreuder, Emergency Planning Coordinator
L. Holden, Corporate Emergency Planning Supervisor
D. Stobaugh, Corporate Emergency Planner

The above and six other licensee representatives attended the NRC exit interview on July 17, 1992. The inspectors also contacted other licensee personnel during the inspection.

3. Licensee Action on Inspection Followup Items (IP 82301)

(Closed) Inspection Followup Item Nos. 254/92004-01 and 265/92004-01:
During the April 1992 exercise, Control Room Simulator (CRS) staff did not initially notify State officials of the Unusual Event and the Alert declarations in a timely manner.

A contributing factor to those untimely notifications was an equipment failure involving the dedicated Nuclear Accident Reporting System (NARS) telephone, which was the primary means of notifying State officials of any emergency declaration. Although the licensee had initiated corrective actions on the CRS's NARS telephone following the April exercise, operability problems with the CRS's NARS equipment persisted in mid-July.

As indicated in Section 4.a of this report, CRS staff determined that their NARS telephone was not fully operational during the July 16 mini-exercise. Backup communications methods were successfully utilized by CRS personnel to initially notify simulated State officials in a timely manner following each emergency declaration made in the CRS.

Records indicated that backup communications equipment has been upgraded in the actual CR, CRS and the Technical Support Center (TSC) by the installation of telephones having a "speed dialing" function and priority access to outside telephone lines. The telephone equipment also allowed a licensee communicator to establish a teleconference with up to five parties so officials in Illinois and Iowa could be simultaneously notified in the event that the dedicated NARS equipment was out of service. Appropriate members of the licensee's onsite emergency response organization had received training on how to utilize the upgraded backup communications equipment.

Corporate emergency planning staff issued additional guidance regarding the continued need for timely notification of offsite officials following any emergency declaration, even if the dedicated NARS and/or commercial telephone equipment became inoperable. In the event that the NARS and commercial telephone lines were not available, the licensee's Systems Power Supply Office would assume responsibility for notifying appropriate offsite officials. Procedure QEP 300-1, "Notifications for GSEP Emergencies", was revised to implement this guidance. This item is closed.

(Closed) Inspection Followup Item Nos. 254/92004-02 and 265/92004-02:
During the 1992 exercise, the Shift Engineer (SE) failed to assess degraded plant conditions warranting an Alert declaration in a timely manner and later failed to obtain sufficient information from the accident scene in order to determine the potential for emergency reclassification.

As indicated in Section 4.a of this report, the SE correctly classified conditions warranting two emergency declarations in a timely manner. CRS staff effectively demonstrated their capabilities to obtain and share complete and accurate information from CRS instrumentation and remote locations so that the SE could make informed emergency response decisions. This item is closed.

(Closed) Inspection Followup Item Nos. 254/92004-03 and 265/92004-03:
During the 1992 exercise, Technical Support Center (TSC) staff did not initially notify State officials of the Site Area Emergency declaration in a timely manner.

As indicated in Section 4.b of this report, the Station Director (SD) in charge of onsite emergency response activities quickly and correctly classified conditions warranting a Site Area Emergency declaration. The SE independently arrived at this conclusion and so informed the SD. Although the TSC's dedicated NARS telephone was considered to be inoperable for the purposes of this exercise, the TSC staff initially notified simulated State officials of the emergency reclassification in an accurate and timely manner.

The licensee's other corrective actions in response to this item are already summarized under Item Nos. 254/92004-01 and 265/92004-01. This item is closed.

4. Specific Observations (IP 82301)

a. Control Room Simulator (CRS)

CRS personnel demonstrated excellent teamwork and knowledge of systems and procedures throughout the exercise. Information flow among decisionmakers, operators and communicators within the CRS was accurate and timely.

Several examples of teamwork and expertise were noteworthy. The SE momentarily planned not to declare an Unusual Event until Unit 1 shutdown commenced. The Shift Control Room Engineer (SCRE) correctly informed the SE that this emergency declaration was

required when both emergency diesel generators associated with Unit 1 were considered to be out of service.

The Alert declaration was very timely and conservative. The SE did an excellent job of evaluating information provided to him by several operators. Area radiation monitor data were properly evaluated by an operator and the SE in terms of the monitors' alarm setpoints and the locations relative to the scene of a simulated resin spill. Another operator received a number of calls from controller roleplaying technicians at the spill scene. The operator ensured that he clearly and completely understood the descriptions of the accident scene and the technicians' reports regarding personnel contamination and exposures. This information was then promptly and accurately reported to the SE so that appropriate onsite protective actions were promptly initiated in addition to the correct emergency declaration.

The CRS crew later demonstrated good teamwork in response to the Unit 1 automatic shutdown, station blackout, and the brief returns to service of one diesel generator and the associated train of the residual heat removal system.

The communicator responsible for notifying simulated State officials quickly adjusted to the inoperability of the dedicated NARS telephone system. Initial notifications to these officials were completed in an accurate and timely manner through the use of upgraded, backup communications equipment.

Overall information sharing between CRS and Technical Support Center (TSC) staffs was generally very good following the Alert declaration. The SE and SCRE briefly neglected to coordinate the dispatch of several inplant teams with the TSC. This was an exercise artificiality since, had events been real, these personnel would have relocated from their normal workstations to the Operational Support Center (OSC) following the Alert declaration.

Transfer of command and control of onsite response efforts from the SE to the TSC's SD was very well done. The SE and other CRS personnel remained very responsive to the information needs of the TSC for the remainder of the exercise.

No violations or deviations were identified.

b. Technical Support Center (TSC)

The TSC became fully operational in a timely manner following the Alert declaration. Information flow among the TSC's staff was very good; however, noise levels during the key staff's briefings could have been better controlled.

Communications with simulated State and NRC officials were timely and accurate. However, TSC staff apparently duplicated the initial notification to the NRC following the Alert declaration.

The SD correctly declared the Site Area Emergency in a timely manner. This decision was quickly confirmed with the SE. Communicators initially notified simulated State and NRC officials in an adequately detailed and timely manner. The communicator responsible for notifying State officials was proficient in using the upgraded backup communications equipment upon discovering that the dedicated NARS telephone equipment was considered inoperable for exercise purposes.

TSC staff demonstrated their ability to coordinate efforts to mitigate the consequences of the degraded plant conditions. Appropriate attention was given to onsite protective actions.

Emergency action levels were closely monitored for applicability in the event of further changes in conditions. Late in the exercise, the SD correctly declared an Unusual Event for a transformer fire which potentially affected Unit 2. This declaration should have been more clearly documented for communication to simulated State officials to better ensure that this declaration was not misinterpreted as a downgrade of the Site Area Emergency declaration associated with Unit 1.

No violations or deviations were identified.

5. Exercise Scenario, Controller Performance and Critiques (IP 82301)

The licensee submitted exercise scope of participation and objectives information in a timely manner. This submittal was followed by a draft scenario manual. The final scenario was significantly different from that utilized in the April 1992 exercise. These submittals were reviewed and were determined to be responsive to the concerns categorized as weaknesses during the April 1992 exercise inspection (Inspection Report Nos. 50-254/92004(DRSS) and 50-265/92004(DRSS)).

Since the licensee's corrective actions involved all persons having certain emergency response positions, rather than only those who participated in the April 1992 exercise, it was agreed that participants in the July 16 remedial mini-exercise need not be limited to those who participated in the earlier exercise.

The licensee utilized two response cells during the July 16 exercise. One response cell simulated the corporate duty officer, NRC responders, plus State and county officials. The second response cell simulated supervisory personnel in the Operational Support Center (OSC), inplant teams and offsite monitoring teams. The scenario included adequate information to allow the response cells to effectively perform their intended functions.

Licensee staff controlled, evaluated and critiqued the July mini-exercise in the same manner as was done during the April exercise. The licensee's preliminary findings were in good overall agreement with the inspectors' preliminary findings.

No violations or deviations were identified.

6. Exit Interview

On July 17, 1992, the inspectors held an exit interview with those licensee representatives listed in Section 2 to present the preliminary inspection findings. The licensee indicated that none of the items discussed were proprietary in nature.

The licensee was informed that its corrective actions were thorough and that concerns categorized as exercise weaknesses during the April 1992 exercise inspection were closed. Overall performance by CRS and TSC staffs during the July 16 mini-exercise was very good.

Attachments:

1. Exercise Scope and Objectives
2. Scenario Narrative Summary