

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos: 50-237; 50-249  
License Nos: DPR-19; DPR-25

Report No: 50-237/2000001(DRS); 50-249/2000001(DRS)

Licensee: Commonwealth Edison Company (ComEd)

Facility: Dresden Nuclear Station, Units 2 and 3

Location: 6500 N. Dresden Road  
Morris, IL 60450

Dates: January 10 - 14, 2000

Inspector: Donald E. Funk Jr., Emergency Preparedness Analyst

Approved by: Steven K. Orth, Acting Chief, Plant Support Branch  
Division of Reactor Safety

## EXECUTIVE SUMMARY

Dresden Nuclear Station, Units 2 & 3  
NRC Inspection Report 50-237/2000001(DRS); 50-249/2000001(DRS)

This inspection reviewed the Emergency Preparedness (EP) program, an aspect of Plant Support. The inspector selectively evaluated the quality of the EP program, related audits and reviews, reviewed the effectiveness of management controls, verified the adequacy of emergency response facilities and equipment, reviewed EP training and qualification activities, and included follow-up on three previous inspection findings. This was an announced inspection conducted by a regional inspector.

- Emergency response facilities, equipment, and supplies were well-maintained. Demonstration of selected emergency response equipment verified that the equipment was operable (Section P2).
- The emergency implementing procedures reviewed were clear and easy to use. The Action Tracking System was an effective method to track and close EP issues (Section P3).
- EP training was generally effective, but tracking of completed training needed improvement. A Non-Cited Violation (NCV) was identified for failure to conduct annual Emergency Response Organization (ERO) training for three Security Directors (Section P5).
- The licensee's Nuclear Oversight assessment and surveillance of the EP program were effective in satisfying the requirements of 10 Code of Federal Regulations (CFR) 50.54(t) (Section P7).

## Report Details

### IV. Plant Support

#### **P2 Status of EP Facilities, Equipment, and Resources**

##### **P2.1 Material Condition of Emergency Response Facilities (ERFs)**

###### **a. Inspection Scope (82701)**

The inspector evaluated the material condition of the Control Room, Technical Support Center (TSC), Operations Support Center (OSC), and the Generating Stations Emergency Plan (GSEP) "barn" and vans. Field monitoring kits were also inspected. The licensee demonstrated the operability of numerous pieces of emergency response equipment, including radiological survey instruments, dose assessment and plant data computer terminals, portable generators, GSEP vans, and communications equipment. Records of periodic inventories and equipment tests were also reviewed.

###### **b. Observations and Findings**

The control room was in a good state of operational readiness. Current Emergency Plan Implementing Procedures (EPIP) were ready and available. The emergency notification system phone was verified operable, and cellular phones were connected to battery chargers and ready to use. The offsite agency notification fax machine was energized and available. The licensee provided an efficient demonstration of the dose assessment software on the control room computer.

The OSC, TSC, and GSEP "barn" were well-maintained. The licensee provided demonstrations of the portable generators, GSEP vans, dose assessment computers, and plant data computers. The layout and floorplan of the TSC had been changed. One wall had been removed, which significantly increased the usable area and should enhance facility staff communications and teamwork.

Prompt alert and notification siren records for 1999 were reviewed by the inspector. Annual operability for 1999 was 97.8 percent with 93.3 percent for the lowest month's average. Siren operability consistently exceeded the Federal Emergency Management Agency acceptability standard of 90 percent functional over a 12 month period.

The inspector reviewed records for the semi-annual augmentation drills. Two drills had been conducted, June 16, and December 15, 1999, since the last routine NRC inspection. Both drills were strictly a call-out to document estimated onsite arrival times with no actual travel to the station. The call-out system was upgraded in June 1999, and during the June 16, drill the Community Alert Network (CAN) was used for the first time to demonstrate Dresden's ability to augment its staff for an emergency. The acceptance criteria, as documented in Corporate Emergency Preparedness

Implementing Procedure (CEPIP) 1130-01, Revision 11, "Conduct of Emergency Response Organization Off Hours Augmentation Drills", uses specific criteria to evaluate the drill as passed, marginally passed, or failed. Both drills were considered as marginally passed by the licensee.

Inventory records of emergency equipment and supplies for the first thru fourth quarter of calendar year 1999 were reviewed. Emergency Preparedness Maintenance Procedure (EPMP) 0100-02, Revision 11, "Equipment Inventory", stated that these inventories shall be conducted at least once per quarter. The inspector's review determined that inventories, with only minor exceptions, were completed as required within the appropriate timeframe.

c. Conclusions

Overall, emergency facilities, equipment, and supplies inspected were well-maintained. The licensee rapidly responded to correct some minor documentation problems. All emergency equipment demonstrated was verified operable. The prompt alert and notification system sirens were well-maintained.

**P3 EP Procedures and Documentation**

a. Inspection Scope (82701)

The inspector reviewed a selection of licensee procedures, emergency plan sections and revisions. Problem Identification Forms (PIFs) assigned to the EP section were reviewed. Also, the Public Information Brochure was reviewed.

b. Observations and Findings

The inspector reviewed changes to the Dresden Emergency Plan, revisions 6P, 6Q and 7, dated between August 1998 and May 1999. The changes for these revisions focused on Emergency Action Level (EAL) revisions, replacing Northwestern Memorial Hospital with Loyola University Medical Center, and implementation of the single Emergency Operations Facility concept. Inspection determined that the changes had not decreased the effectiveness of the Dresden emergency plan.

The inspector also reviewed the following EIPs and EPMPs with no significant problems in content, format, or revisions identified: EPIP 0107-01, "Acting Station Director", Revision 5, dated July 6, 1999; EPIP 0160-01, "OSC Director", Revision 6, dated May 17, 1999; EPIP 0200-01, "Classification of GSEP Conditions", Revision 5, dated May 17, 1999; EPIP 0300-01, "Notifications for GSEP Emergencies", Revision 13, dated November 19, 1999; EPMP 0100-04, "GSEP Activation Notifications Test", Revision 7, dated June 15, 1999; and EPMP 0100-05, "Operational Check of Communications Systems", Revision 3, dated June 24, 1999.

The inspector evaluated the licensee's Corrective Action Program, as it pertains to EP. The Action Tracking System (the process that the licensee uses to identify, track and close issues) was reviewed to determine the range of EP issues identified and the

effectiveness of tracking and disposition of identified issues. The items reviewed were clearly identified by number and description; cognizant management and responsible persons, due dates, and item status were also listed. Eleven PIFs related to EP were evaluated by the inspector.

Documentation packages for selected PIFs were reviewed and found to be detailed and complete, with clearly trackable issues, status, dates, and closure documentation, with only one exception, where a PIF did not have adequate closure documentation. A PIF had been properly initiated when issues were considered to exceed the threshold as specified in "Corrective Action Program Procedure", NSP-AP-4004, Revision 4.

The Dresden Public Information brochure, distributed in May 1999, was also reviewed and was found to be in accordance with the ComEd GSEP.

c. Conclusions

The procedures reviewed were clear and easy to use. Action Tracking was an effective method to track and document closure of EP issues. The Public Information Brochure had been distributed.

**P5 Staff Training and Qualification in EP**

a. Inspection Scope (82701)

The inspector reviewed various aspects of the licensee's training program. The reviews included interviews with selected key ERO personnel (Assistant Station Director, OSC Director, Radiation Protection Technician), reviews of attendance records and the First Quarter GSEP Augmentation Telephone List, Revision 0. Respirator and Self-Contained Breathing Apparatus (SCBA) qualifications of plant personnel were also reviewed.

b. Observations and Findings

Interviews with three emergency response personnel indicated appropriate knowledge of procedures and emergency responsibilities. The Assistant Station Director effectively demonstrated knowledge of the NRC's incident response program. During the interviews, personnel commented on the responsiveness of the EP group and their open attitude regarding questions and concerns.

Records indicated that training was appropriately documented and training and drills were provided formal feedback opportunity. Training records were compared with the First Quarter 2000 GSEP Augmentation Telephone List to verify ERO personnel listed on the call list were qualified. Three Security Directors and two Plant Status Communicators were not currently trained for their emergency response positions.

10 CFR 50, Appendix E, Section F, "Training" states in part that the EP program is to provide for the training of employees. The GSEP Section 8.2, "Training", Revision 8, stated "the proficiency of emergency response personnel (as defined in 10 CFR 50,

Appendix E) is ensured by the following means: Initial training and annual retraining on applicable generic and site specific portions of the GSEP and the corresponding implementing procedures. Annual retraining is to be conducted on a calendar year basis”.

Contrary to the above, on January 13, 2000, it was identified that three of four GSEP Security Directors had not received annual requalification training in 1999 and were on the First Quarter 2000 GSEP Augmentation Telephone List. This Severity Level IV violation is being treated as a Non-Cited Violation, consistent with Appendix C of the NRC Enforcement Policy. (NCV 50-237/2000001-01(DRS); 50-249/2000001-01(DRS)). This issue was entered into the licensee’s corrective action program as PIF D2000-00200.

The licensee stated that the failure to cross check the training matrix against the GSEP Augmentation Telephone List resulted in the positions of Security Director and Plant Status Communicator to be left off the training matrix. Immediate corrective actions were initiated on January 13, 2000, when all three of the GSEP Security Directors were trained. The EP trainer also reviewed the training for all current GSEP Augmentation Telephone List personnel to ensure all were trained and qualified for GSEP duties and found that two Plant Status Communicators had also not been trained. The EP Coordinator (EPC) properly deleted their names from the Telephone List and issued a revised version. Long term corrective actions were initiated to review the method of tracking training qualifications for all ERO personnel.

Review of respirator and SCBA qualification documentation provided the following information:

<b>Respirator/ SCBA Qualifications</b>				
DEPARTMENT	NUMBER OF INDIVIDUALS	TRAINING/MEDICAL QUALIFIED	RESPIRATOR QUALIFIED	SCBA QUALIFIED
Radiation Protection	66	65/57	45	42
Operations	134	119/125	93	85
Instrument Maintenance	54	41/36	31	2
Electrical Maintenance	59	50/47	37	0
Mechanical Maintenance	120	94/92	56	50
Chemistry	25	20/19	12	12
Welders	16	13/13	10	0

NRC Information Notice 98-20, “Problems With Emergency Preparedness Respiratory Protection Programs”, was issued June 3, 1998. This information notice alerted licensees to multiple generic weaknesses in respiratory protection programs supporting emergency preparedness. Respiratory protection qualifications included three parts;

respiratory training, medical testing, and a mask fit. The numbers represented the current respiratory qualifications by department. The results of this review indicated that there appears to be sufficient respiratory and SCBA qualified personnel to respond in the event of an emergency. Discussions indicated that licensee personnel were aware of the Information Notice and had evaluated its information.

c. Conclusions

EP training was generally effective, but tracking of completed training needed improvement. Training records indicated that the program for tracking emergency responder qualifications was generally effective and training modules were properly reviewed and/or revised. One Non-Cited Violation of training requirements was identified. Interviewed key emergency response personnel demonstrated their knowledge of responsibilities and emergency procedures.

**P6 EP Organization and Administration**

a. Inspection Scope (82701)

The inspector conducted discussions with the EP staff regarding the current EP organization and anticipated changes.

b. Observations and Findings

Significant changes have been made to the EP organization since the last inspection. While the EPC continued to report to the Radiation Protection Manager (RPM), who in turn reports directly to the Station Manager, the RPM, EPC and the EP trainer have all changed. For the second consecutive year the position of EP trainer had been filled after a five month vacancy. Also as part of a Corporate EP mandate for standardization, the station implemented the CAN. CAN provided a call-out system for augmenting plant staff in an emergency. Management support for the program was adequate as evidenced by support for a number of program upgrades such as the CAN, TSC upgrade, and dedicated OSC directors for ERO activation.

c. Conclusions

Discussions with the EPC, staff, and site personnel indicated appropriate management support to the program. Upgrades and enhancements, plus the EP staff's responsive approach, have continued improving trends in the program.

**P7 Quality Assurance in EP Activities**

a. Inspection Scope (82701)

The inspector reviewed Nuclear Oversight (N.O.) Department Assessments which have been performed since the last routine EP inspection. The review also included an interview with the plant support lead assessor. Also reviewed was the 1999 EP Program Self-Assessment.

b. Observations and Findings

The N.O. annual EP assessment, NOA-12-99-PS04, conducted May 5 - 17, 1999, was very detailed; and objective evidence and surveillance reports supported the audit findings. The audit resulted in one deficiency, regarding GSEP equipment inventory surveillance. The corrective actions reviewed by the inspector included documenting the deficiency in the corrective action program by initiating a PIF and immediately conducting the missing surveillance of the TSC/OSC equipment inventory. The audit report and discussion with the lead auditor indicated that the overall implementation of the EP program had been effectively maintained. The audit identified that the interface with the state and local governments have been effective, which satisfied the requirements of 10 CFR 50.54(t).

The EP Program Self-Assessment was conducted September 8 - 10, 1999, with the assistance of corporate, Braidwood, Quad Cities and LaSalle EP personnel, utilizing NRC inspection procedure 82701 as the base document. This review concluded that the Dresden EP program had been maintained satisfactorily. However, the report identified two deficiencies, five recommendations and a comment that the EPC had been trying to perform both the EPC and Assistant EPC jobs since June 1999. As a result, program improvements have been put on hold in order to maintain the program in a state of operational readiness and that the administrative details have taken a lower priority than is desired. The self-assessment has proven to be a useful tool in identifying and obtaining corrective action on EP program issues at this site and others.

The inspector discussed N.O. and self-assessment findings and actions taken for the identified issues. Licensee evaluation of these items, documentation, tracking, corrective actions, and closure were generally effective and appropriate.

c. Conclusions

The licensee's N.O. assessment of EP activities were effective and satisfied the requirements of 10 CFR 50.54(t) to evaluate and document the adequacy of offsite interface with the State and local agencies. The EP self-assessment was of good scope and depth. The EP staff's ongoing responses to audit findings were appropriate and timely.

**P8 Miscellaneous EP Issues**

- P8.1 (Closed) Inspection Followup Item (IFI) No. 50-237/99001-01; 50-249/99001-01: During the 1999 EP routine inspection it was identified that the off hours augmentation drill did not effectively demonstrate the capability to augment the onshift staff in a short period after declaration of an emergency. Corrective action included reviewing and revising the procedure which directed and evaluated the off hours augmentation drills. As part of a Corporate EP mandate for standardization, the station implemented CEPIP 1130-01, which added one additional minimum responder to the TSC and incorporated generic evaluation criteria. Further, the station implemented the CAN and had drills to test the revised procedure prior to procedure finalization. The station then conducted two successful off hours augmentation drills during 1999. This item is closed.

- P8.2 (Closed) IFI No. 50-237/99010-01; 50-249/99010-01: During the 1999 emergency exercise the dispatch of urgent priority emergency response teams was not always timely. Corrective actions included initiating an action tracking request (AR) 17339-09, and developing an Emergency Preparedness Department Training and Reference Material OSC Team Dispatch Priority Scheme, dated January 3, 2000. This document establishes policy for the Nuclear Generation Group for dispatch of Emergency Teams from the OSC. As part of this policy, the definitions of urgent, high, and medium were redefined to better specify the actions associated with emergency response teams. The dispatch of emergency response teams using the new definitions were observed during a Severe Accident Management Guidelines drill conducted during the third quarter 1999. This item is closed.
- P8.3 (Closed) IFI No. 50-237/99010-02; 50-249/99010-02: During the 1999 emergency exercise, radiation protection personnel conducting team dispatch briefings did not verify the status of respiratory qualifications of two personnel assigned to a emergency response team prior to dispatch. Corrective actions included initiating an AR 13580-02 and placing a current copy of the respiratory qualification list in the OSC supervisors book. The emergency response team dispatching briefing form was also revised to include a check, first for the need for respiratory protection, and then a second check for qualifications. This item is closed.

## **V. Management Meeting**

### **X1 Exit Meeting Summary**

The inspector presented the inspection results to licensee management at the conclusion of the onsite inspection on January 14, 2000. The licensee acknowledged the findings presented. Overall, the EP program was in an effective state of operational readiness. Management support to the program was adequate, and interviewed key emergency response personnel demonstrated a good working knowledge of responsibilities and emergency procedures.

The inspector asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

## PARTIAL LIST OF PERSONS CONTACTED

### Licensee

J. Almon, Executive Assistant  
D. Ambler, Regulatory Assurance Manager  
G. Bockholdt, Maintenance Manager  
R. Book, Acting Nuclear Oversight Manager  
P. Boyle, Chemistry Manager  
S. Butterfield, NRC Coordinator  
P. Chabot, Engineering Manager  
R. Fisher, Operations Manager  
M. Friedmann, EP Coordinator  
M. Heffley, Site Vice President  
W. Lipscomb, Training Manager  
J. Moser, Radiation Protection Manager  
R. Rysner, Plant Support Lead Assessor, N.O.  
P. Swafford, Station Manager  
D. Van Aken, EP Trainer  
M. Vonk, EP Manager

### IDNS

Rick Zuffa, IDNS Resident Inspector

### NRC

B. Dixon, Resident Inspector  
K. Reimer, Senior Resident Inspector

## INSPECTION PROCEDURES USED

IP 82701: Operational Status of the Emergency Preparedness Program  
IP 92904: Follow-up Plant Support

## ITEMS OPENED AND CLOSED AND DISCUSSED

### Opened

50-237;249/2000001-01      NCV      Training of ERO personnel

### Closed

50-237;249/99001-01      IFI      Implementation of semi-annual augmentation drills.

50-237;249/99010-01      IFI      Timely dispatch of urgent teams.

50-237;249/99010-02      IFI      Handling of respiratory qualifications in OSC.

50-237;249/2000001-01      NCV      Training of ERO personnel

### Discussed

None

## LIST OF ACRONYMS USED

AR	Action Request
CAN	Community Alert Network
CEPIP	Corporate Emergency Preparedness Implementing Procedure
CFR	Code of Federal Regulations
ComEd	Commonwealth Edison Company
DRS	Division of Reactor Safety
EAL	Emergency Action Level
EP	Emergency Preparedness
EPC	Emergency Preparedness Coordinator
EPIP	Emergency Plan Implementing Procedures
EPMP	Emergency Preparedness Maintenance Procedure
ERF	Emergency Response Facilities
ERO	Emergency Response Organization
GSEP	Generating Stations Emergency Plan
IFI	Inspection Followup Item
NCV	Non-cited Violation
N.O.	Nuclear Oversight
NRC	Nuclear Regulatory Commission
OSC	Operations Support Center
PIF	Problem Identification Form
PDR	Public Document Room
RPM	Radiation Protection Manager
SCBA	Self-Contained Breathing Apparatus
TSC	Technical Support Center