U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-237/92008(DRSS); 50-249/92008(DRSS)

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

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

Facility Name: Dresden Nuclear Generating Station, Units 2 and 3

Inspection At: Dresden Site, Morris, Illinois

Inspection Conducted: May 26-28, 1992

Inspectors: T. Ploski for H. Simons — 6/8/92 Date

T. Ploski — 6/8/92 Date

Accompanying Personnel: M. Peck
G. Smith
D. Schultz

Approved By: J. W. McCormick-Barger — 6/7/92 Date
J. W. McCormick-Barger, Chief
Emergency Preparedness Section

Inspection Summary

Inspection on May 26-28, 1992 (Report Nos. 50-237/92008(DRSS); 50-249/92008(DRSS))
Areas Inspected: Routine, announced inspection of the Dresden Nuclear Generating Station's emergency preparedness exercise involving review of the exercise scenario (IP 82302), observations by six NRC representatives of key functions and locations during the exercise (IP 82301), and follow-up on licensee actions on previously identified items (IP 82301).
Results: No violations or deviations were identified. The licensee demonstrated a good overall response to a hypothetical scenario which included the following challenging aspects: use of the control room simulator; activation of the security plan; activation of the fire brigade and offsite monitoring teams; and the use of roleplayers simulating NRC duty officers and onscene incident responders.

One concern was identified regarding the untimely briefing and dispatch of offsite monitoring teams. Interfaces between the security force and other members of the licensee's emergency response organization were good. All emergency declarations were correct and timely. Corrective actions were successfully demonstrated for all three concerns identified during the 1991 exercise.

DETAILS

1. NRC Observers and Areas Observed

H. Simons, Control Room Simulator (CRS), Technical Support Center (TSC), Emergency Operations Facility (EOF)
J. McCormick-Barger, CRS, TSC
T. Ploski, Operational Support Center (OSC), inplant teams
M. Peck, CRS
G. Smith, CRS, TSC, EOF
D. Schultz, TSC

2. Persons Contacted

L. Gerner, Technical Superintendent
J. Kotowski, Production Superintendent
R. Radtke, Regulatory Assurance Supervisor
T. Josefik, Security Administrator
L. Oshier, Lead Health Physicist
D. Sharper, Emergency Planning Coordinator
R. Holman, Emergency Planning Coordinator
R. Carson, Corporate Emergency Planning Supervisor
R. Groves, Corporate Emergency Planner

The above and 10 other licensee representatives attended the NRC exit interview on May 28, 1992.

The inspectors also contacted other licensee personnel during the inspection.

3. Licensee Action on Previously Identified Items (IP 82301)

(Closed) Open Item No. 237/91023-01: During the 1991 annual exercise, the Shift Engineer (SE) failed to declare an Unusual Event due to a postulated security threat situation.

The licensee revised several of the Emergency Action Levels (EALs) in order to clarify the criteria for declaring an emergency due to various types of security threats. As indicated in Section 6.a of this inspection report, during the 1992 exercise the SE correctly classified several situations warranting emergency declarations due to ongoing security threats. This item is closed.

(Closed) Open Item No. 237/91023-02: During the 1991 exercise, supervisors in the Operational Support Center (OSC) did not maintain adequately detailed logs and records of briefings given to inplant teams.

As indicated in Section 6.c of this inspection report, the OSC Director, OSC Supervisor and a technical briefer

maintained adequately detailed records of their activities and decisions on logs, briefing forms and message forms. This item is closed.

(Closed) Open Item No. 237/91023-03: During the 1991 exercise, the OSC Supervisor demonstrated inadequate concern for the respiratory protection needs of several inplant teams.

During the 1992 exercise, one team's assignment involved the use of respiratory protection equipment as a precaution due to changing plant conditions. The team was dispatched to prepare the post accident sampling system for use in collecting a reactor coolant sample. The OSC Supervisor and the Radiation Protection Technician (RPT) assigned to this team demonstrated good concern for the team's respiratory protection needs. Both persons assured that all team members were currently qualified to wear full face respirators. The RPT assured that each team member was issued the proper size respirator from the OSC's supplies. This item is closed.

4. General

An announced, off-hours exercise of the licensee's Generating Stations Emergency Plan (GSEP) was conducted at the Dresden Station site on the night of May 26-27, 1992. The exercise tested the licensee's emergency response organization's capabilities to respond to an accident scenario resulting in a simulated release of radioactive effluent. Attachment 1 describes the scope and objectives of the exercise. Attachment 2 summarizes the exercise scenario.

5. General Observations

a. Procedures

This exercise was conducted in accordance with 10 CFR Part 50, Appendix E requirements, using the licensee's GSEP and related implementing procedures.

b. Coordination

The licensee's response was coordinated, orderly and timely. If scenario events had been real, the actions taken by the licensee would have been sufficient to mitigate the accident and permit State and local authorities to take appropriate actions to protect the public's health and safety.

c. Observers

The licensee's controllers and observers monitored and critiqued this exercise, as was independently done by six NRC observers.

d. Exercise Critique

The licensee held critiques in each facility with the participants immediately following the exercise. Lead controllers held a joint critique the day following the exercise to discuss observed strengths and weaknesses for each facility and the overall exercise. The NRC discussed observed strengths and weaknesses, developed independently by the NRC evaluation team, during the exit interview with the licensee held on May 28, 1992.

6. Specific Observations (IP 82301)

a. Control Room Simulator (CRS)

At 0015 hours, the Security Shift Supervisor (SSS) received a report of abnormal aircraft activity over the plant site. The Shift Engineer (SE) in charge of CRS activities was promptly notified. The SE correctly declared an Unusual Event. State officials and the SSS were notified of this declaration in a timely manner.

After receiving another report that unauthorized persons had apparently entered the Protected Area, the SSS instructed the guard force to respond accordingly. The SSS then informed the SE of this information and a new report that a suspicious device was found within the Protected Area. The SE correctly declared an Alert at 0100 hours, based on the timely and accurate information provided by the SSS. State officials and the SSS were notified of this emergency declaration in a timely manner.

A response cell of controllers simulated NRC and other offsite organizations' representatives. CRS personnel initially notified simulated NRC officials of the Unusual Event and Alert declarations within the regulatory time limit. Simulated Federal Aviation Administration (FAA) officials were notified after the Unusual Event declaration. The SE kept CRS personnel adequately informed of these declarations and his other decisions in response to scenario events.

The SE should have recognized that NRC officials needed to be further informed of the FAA notification, per 10 CFR 50.72 (a)(2)(vi), as well as the unauthorized entry

of personnel and contraband into the Protected Area, per the requirements of 10 CFR Part 73, Appendix G. However, had scenario events been real, NRC officials would have recognized that the licensee's event descriptions associated with both emergency declarations represented reportable safeguards events and would have reacted accordingly.

Following the Unusual Event declaration, a Generating Stations Emergency Plan (GSEP) Advisor reported to the plant site and functioned in the CRS, Technical Support Center (TSC) and the Operational Support Center (OSC) as the exercise progressed. In response to the inspectors' concern that this staff level position was not yet proceduralized, the licensee provided a draft procedure for the GSEP Advisor position and indicated that the exercise was seen as an opportunity to refine the position's role in one or more response facilities.

The GSEP Advisor's overall performance was a positive contribution to the onsite emergency organization's performance. However, on one occasion, the advisor provided direction to an operator, which briefly diminished the SE's command authority over CRS staff. The GSEP Advisor should provide his advice through the SE. An operations engineer provided excellent support to the SE during the exercise without adversely impacting the SE's command authority.

The SE accepted the GSEP Advisor's good advice to order the assembly of all onsite personnel following the Alert declaration as a security precaution. It was unclear if the SE adequately coordinated this action with the SSS prior to the sounding of the station's assembly siren.

Following the loss of circulating water and the Anticipated Transient Without SCRAM (ATWS), the Shift Control Room Engineer briefly assumed command and control of the reactor operators, rather than performing his Shift Technical Advisor (STA) function. After about five minutes, the SE relieved the engineer so that STA duties could be fulfilled.

No violations or deviations were identified.

b. Technical Support Center (TSC)

The TSC was activated following the Alert declaration. TSC staff were pre-selected in order to fulfill their periodic exercise participation requirements. They responded to the site from various offsite locations.

Had events been real, a calltree, which was a prioritized listing of persons assigned to each response position by their estimated commuting times to the site, would have been implemented. An adequate number of TSC staff arrived about 65 minutes after the Alert declaration. The TSC's Station Director (SD) relieved the SE of command and control of the onsite response organization approximately 98 minutes after the Alert declaration. The timliness of TSC activation and transfer of command and control are considered adequate, in view of the use of pre-selected personnel rather than the implementation of the prioritized calltree described above.

During the final phase of TSC activation, an explosion in the cribhouse, which was related to the onging security threat, and a related ATWS occured. The SE declared a Site Area Emergency in a correct and timely manner. State and NRC officials were initially notified in a timely manner, although there was brief confusion on whether CRS or TSC staff should perform these required notifications.

Several minor problems were noted regarding the initial notification message to the State, which was prepared and transmitted by TSC staff. Although an abnormal release to the atmosphere would likely have been through the standby gas treatment system, the current wind speed and direction data provided to state officials were more appropriate for a ground level release, rather than an elevated release to the environment.

Secondly, the message form developed by state officials, which is utilized to formulate initial notification messages for any emergency declaration, does not require event description information to be included in the message. Instead, such information may be provided in the "additional information" section of the message form or may be provided to the state officials, upon their request, during the message verification callback process. In order to expedite information flow regarding the bases of any emergency declaration, the licensee and state officials should consider revising the message form to include mandatory provisions for an event description.

Overall, the TSC staff effectively interacted in correctly assessing plant conditions and adjusting corrective action priorities in response to changing scenario events. Several means were used to assure that all TSC staff remained aware of plant conditions,

major decisions and other response actions. Status boards were maintained in an accurate and timely manner. The SD conducted periodic briefings during which each of his directors were expected to update all TSC staff on the status of their current activities, new information and any concerns. Noise levels within the TSC were somewhat improved from those noted during the 1991 exercise. However, TSC staff should have made better efforts to minimize communications while the SD was conducting the very informative briefings.

Per procedures, two offsite radiological monitoring teams were to be formed and made ready to leave the site following the Alert declaration. The teams were formed within about one hour after the Alert declaration. However, the teams' leaders did not complete initial briefings in the TSC until after 0300 hours, or more than two hours after that declaration. The teams then obtained and checked their supplies, survey instruments, communications equipment and vehicles. These tasks took an estimated 45 minutes to complete, which was adequate. However, the offsite monitoring teams were not ready to perform their duties until almost three and one half hours after the Alert declaration, which was inadequate. The untimely briefing and dispatch of the offsite monitoring teams is an Inspection Follow-up Item (50-237/92008-01 and 50-249/92008-01).

The first documented offsite dose projection performed by TSC staff was not done until 0321 hours, roughly one hour after drywell radiation levels had begun to increase. By the exit interview, the inspectors were satisfied that the TSC's dose assessor had performed several offsite dose projections prior to the first one for which a computer printout was generated. The dose assessor apparently elected not to have the computerized calculations printed until drywell radiation levels were on the order of 500 to 1000 Roentgens per hour (R/hr). All offsite dose calculations should be documented for subsequent evaluations of the licensee's response by NRC and licensee incident investigation teams.

The director-level members of the TSC staff maintained individual logs of the activities and decisions that varied in quality. Several of the TSC's status boards were electronic copy boards, which enabled clerical support staff to readily generate historical records of information on these boards. Clerical staff also manually copied information posted on all other TSC status boards as another supplement to the directors'

personal logs for response reconstruction purposes.

Several licensee staff arrived in the TSC during the latter stages of the exercise in order to simulate being members of an NRC Site Team. The simulated Site Team should have been briefed by a senior TSC manager having an overall knowledge of abnormal onsite conditions and ongoing response activities, rather than only being briefed by the Security and Technical Directors.

No violations or deviations were identified; however, one Inspection Follow-up Item was identified.

c. Operational Support Center (OSC)

Onshift personnel began reporting to the OSC following the Alert declaration. As a precautionary measure due to the ongoing security threat, all onsite personnel were ordered to assemble and to be accounted for shortly after the Alert declaration.

The OSC Director identified himself and several key aides to the available technicians. He ordered no one to leave the facility without his permission. OSC staff were accounted for by signing a roster or by registering with a guard at the entrance to the facility. Although onsite personnel were accounted for within about 30 minutes, the OSC Director should have indicated when he considered all persons under his authority to be present and accounted for.

A supervisors' office and the adjacent lunchroom were reconfigured into the OSC workspace. All but one walkway into the lunchroom were blocked as an access and a contamination control measure. A contamination control point was established along the only usable hallway leading to and from the OSC. Inplant teams surveyed themselves at this location before entering the OSC. Habitability surveys were periodically performed within the OSC.

While OSC activation and onsite assembly were in progress, a Radiation Protection Technician (RPT) was assigned to survey the onsite assembly areas. Due to the ongoing security threat, the RPT was not dispatched until a security guard was available to accompany him. Both were adequately briefed on the survey task and the security threat. The RPT kept OSC supervision informed of his survey results as he completed surveying each assembly area.

The OSC Director declared the facility to be fully operational within 60 minutes of the Alert declaration. By that time, all supervisory personnel and several dozen technicians were available to perform their duties.

Overall information flow between the OSC, CRS and TSC was very good, with several minor exceptions. Although an OSC communicator maintained open line communications with a CRS counterpart, the first report of the ATWS was received from the GSEP Advisor, who had arrived from the CRS to assist in activating the OSC. The CRS's communicator confirmed this report when asked. During periodic briefings of key TSC staff that were broadcast in the OSC, TSC staff on several occasions stated their beliefs that certain inplant teams had been dispatched from the OSC on high priority tasks. On both occasions, these teams were in the midst of the briefing process when these announcements were made. Since status boards in the TSC and the OSC listed the dispatch times of all inplant teams, there should have been no misunderstandings about the status of any team.

During the exercise, any of four supervisory personnel in the OSC gave concise, accurate status update briefings to the available technicians. A flip chart was used to post updated information on scenario events, major decisions and higher priority tasks. Broadcasts of TSC staff briefings supplemented these sources of information.

The OSC Director and his aides effectively managed technicians assigned to the facility. A two-sided copy board was used to list the names of technicians from each department who were available for assignment, as well as those who were currently assigned to an inplant team. No teams were delayed due to a real or perceived shortage of technicians, dosimetry, or protective clothing. Several teams were delayed up to about 15 minutes until a security guard became available to accompany them.

Twelve inplant teams were dispatched from the OSC during the exercise. Teams were given concise and detailed briefings by a technical briefer or the OSC Supervisor. These individuals also debriefed returning teams. Briefings and debriefings were adequately documented on forms. In addition to the tasks to be performed, briefings addressed: the status of the security threat; anticipated radiological conditions; exposure limits; protective clothing needs; and reporting instructions.

Each team member's exposure history was verified prior to a team's dispatch. Teams were issued proper dosimetry and protective clothing. An RPT, equipped with a survey instrument, accompanied inplant teams whenever appropriate. A guard accompanied each team until the onsite security threat no longer existed. Team members' simulated radiation exposures were adequately tracked.

Two inplant teams were accompanied by an inspector. Both were adequately briefed, issued proper dosimetry and received adequate support from the accompanying RPT to avoid unnecessary radiation exposures.

A team of instrument and electrical maintenance technicians was dispatched to determine the cause of a loss of power to the control room's indications of control rods' positions. The technicians obtained the tools and system drawings needed to troubleshoot the problem. The technicians efficiently diagnosed the equipment failure, which was simulated on a realistic equipment mockup.

An operator was later dispatched to simulate connecting two instrument air systems. The operator obtained the relevent procedure and proceeded to the work sites, where he adequately described how he would perform the assigned task in accordance with the procedure.

Inplant teams reported the results of their activities to OSC supervision prior to returning to the OSC. These results were then promptly reported to the TSC.

No violations or deviations were identified.

d. Emergency Operations Facility (EOF)

EOF activation began after the Site Area Emergency declaration. Incoming EOF staff, who were prestaged in a local motel, efficiently prepared to perform their duties. Communications with TSC counterparts were quickly established. Although EOF staff became fully capable of performing their duties in a timely manner, turnover of command and control from the TSC's SD to the EOF's Manager of Emergency Operations (MEO) was slow. The EOF was fully operational about 30 minutes before the SD was ready to relinquish command and control of the licensee's response efforts to his EOF counterpart. This delay did not adversely affect the licensee's response to scenario events.

The EOF's Safeguards Specialist was particularly effective in performing his duties before and after the MEO assumed command. As the security threat evolved, he showed good concern for the safety of onsite personnel, non-essential evacuees from the site and EOF staff. The Safeguards Specialist and the EOF's Access Control Coordinator demonstrated good initiative by using a status board to post detailed information regarding the changing security threat situation for the benefit of EOF decisionmakers and their support staffs.

Protective measures staff in the EOF performed very effectively in several respects. When they were notified that an explosive device had been placed in a location which could lead to a radioactive release to the environment, they quickly performed offsite dose projections to estimate the worst case offsite impact. EOF decisionmakers were informed of this assessment. When one offsite survey team was simulated to have had a vehicle accident, the Environs Director soon recognized that the loss of communications with this team might be related to more than an equipment malfunction. He ordered the other survey team to search for their missing counterparts. Once he discovered that the personnel involved in the vehicle accident were unharmed, the director began making arrangements to replace this team with another from the licensee's LaSalle County Station.

The EOF's reactor safety group performed well with respect to gathering and assessing plant status information. One minor flaw was noted in their performance. The group utilized the table of Emergency Action Levels (EALs) found in the emergency plan rather than the EAL table located in an implementing procedure. The plan's EAL table was out-of-date despite NRC's recent approval of a plan revision containing several EAL refinements. These refinements had been incorporated in the implementing procedure. The inconsistencies between the plan's and the procedure's EAL tables had no adverse affect on the exercise participants. Approved changes to the emergency plan should be distributed and filed in controlled copies of this document in a more timely manner.

In general, briefings within the EOF should have been more frequent and thorough. The MEO initially briefed available personnel while the facility was being staffed. The next briefing did not occur for about 50 minutes. During subsequent briefings, not all EOF

staff were briefed that the explosive device, which could have created a release path, had been deactivated or that one offsite survey team had been involved in an accident. Such information appeared to be known only by key staff and persons in the affected functional groups in the EOF. All EOF staff, including any liaisons from State agencies, should be briefed on all significant events.

No violations or deviations were identified.

7. Exercise Objectives and Scenario Review (IP 82302)

The exercise scope and objectives and the exercise scenario were submitted to NRC within the proper timeframes. The licensee adequately responded to the lead inspector's questions pertaining to the scenario.

The scenario was challenging and included the use of: the control room simulator; the security plan; a response cell of controllers to simulate NRC duty officers and other offsite officials; licensee staff simulating members of an NRC Site Team; and several equipment mockups.

No violations or deviations were identified.

8. Exercise Control

Exercise control was good. There were adequate controllers to control the exercise. No noteworthy instances of controllers prompting participants to initiate actions, which they might not otherwise have taken, were observed.

No violations or deviations were identified.

9. Exit Interview

The inspectors held an exit interview on May 28, 1992, with the licensee representatives identified in Section 2 to present and discuss the preliminary inspection findings. The licensee indicated that none of the matters discussed were proprietary in nature.

The licensee was informed that the exercise's challenging aspects included: activation of the security plan; use of the control room simulator; activation of the fire brigade and offsite monitoring teams; the use of several equipment mockups; and the use of roleplayers to simulate NRC duty officers and onscene incident responders.

One concern was identified regarding the untimely briefing and dispatch of offsite survey teams. In response to a concern about the unproceduralized GSEP Advisor position, the licensee provided a draft implementing procedure and indicated that the position would soon by formally added to the onsite emergency organization. Interfaces between the security force and the licensee's other emergency responders were good. All emergency classification decisions were correct and timely. Corrective actions were successfully demonstrated on all three concerns identified during the 1991 exercise.

Attachments:
1. Exercise Scope and Objectives
2. Exercise Scenario Summary

DRESDEN NUCLEAR POWER STATION
1992 GSEP EXERCISE
MAY 27, 1992

ATTACHMENT 1

SCOPE OF PARTICIPATION

DATE: May 27, 1992

TYPE CECo Only, offhours

OFFSITE AGENCY PARTICIPATION:

None

PURPOSE:

Test the capability of the basic elements within the Commonwealth Edison Company GSEP. The Exercise will include mobilization of CECo personnel and resources adequate to verify their ability to respond to a simulated emergency.

CECo FACILITIES ACTIVATED:

* Control Room (Simulator)
* TSC
* OSC
* EOF

CECo FACILITIES NOT ACTIVATED:

* CEOF
* JPIC

Other Participants:

* None

The "Exercise" Nuclear Duty Officer will be notified of simulated events as appropriate on a real-time basis. The "Exercise" Nuclear Duty Officer and the balance of the Corporate Emergency Response Organization will be prepositioned close to the EOF to permit use of personnel from distant locations.

Commonwealth Edison will demonstrate the capability to make contact with contractors whose assistance would be required by the simulated accident situation, but will not actually incur the expense of using contractor services except as prearranged specifically for the Exercise.

Commonwealth Edison will arrange to provide actual transportation and communication support in accordance with existing agreements to the extent specifically prearranged for the Exercise. Commonwealth Edison will provide unforeseen actual assistance only to the extent that the resources are available and do not hinder normal operation of the Company.

DRESDEN NUCLEAR POWER STATION
1992 GSEP EXERICSE
MAY 27, 1992

1. Assessment and Classification

Objectives

a. Demonstrate the ability to assess, within fifteen (15) minutes, conditions which warrant initiating a GSEP classification. (CR, TSC EOF)

b. Demonstrate the ability to determine applicable Emergency Action Levels (EALs) within fifteen (15) minutes of initiating classification. (CR, TSC, EOF)

2. Notification and Communication

Objectives

a. Demonstrate the ability to correctly fill out a NARS form. (CR, TSC, EOF)

b. Demonstrate the ability to notify appropriate State and local organizations within fifteen (15) minutes of an Emergency classification or significant change in NARS information. (CR, TSC, EOF)

c. Demonstrate the ability to correctly fill out NRC Event Worksheets. (CR, TSC, EOF)

d. Demonstrate the ability to notify the NRC immediately following State notification and within one (1) hour after making an Emergency classification. (CR, TSC, EOF)

e. Demonstrate the ability to provide hourly information updates to the States and within thirty (30) minutes of changes in latest reported conditions on the State Agency Update Checklist. (CR, TSC, EOF)

f. Demonstrate the ability to contact appropriate support organizations that would be available to assist in an actual emergency within one (1) hour of conditions warranting their assistance. (e.g. M+T, Teledyne) (CR, TSC, EOF)

g. Demonstrate the ability to maintain an open-line of communication with the NRC on ENS upon request. (CR, TSC, EOF)

h. Demonstrate the ability to maintain an open-line of communication with the NRC on HPN upon request. (TSC, EOF)

i. Demonstrate the ability to provide hourly information updates to the NRC and within thirty (30) minutes of changes in reportable conditions when an open-line of communication is not maintained. (ENS and HPN) (CR, TSC, EOF)

j. Demonstrate the ability to provide adequate informational announcements (e.g. assembly instructions, changes in plant conditions) over the plant public address system. (CR)

3. Radiological Assessment and Protective Actions

Objectives

a. Demonstrate the ability to collect and document radiological surveys taken for conditions presented in the scenario. (TSC, EOF, OSC)

b. Demonstrate the ability to trend radiological information for conditions presented in the scenario. (TSC, EOF, OSC)

c. Demonstrate the ability to take appropriate protective actions for onsite personnel in accordance with Station procedures. (e.g. respiratory protection, protective clothing, KI) (OSC, TSC)

d. Demonstrate the ability to adequately prepare and brief personnel for entry into High Radiation Areas in accordance with Station procedures and policies. (OSC, TSC)

e. Demonstrate the ability to issue and administratively control dosimetry issued to teams dispatched from the OSC in accordance with Station procedures. (OSC)

f. Demonstrate the ability to establish radiological control in accordance with Health Physics procedures. (TSC, OSC, EOF)

g. Demonstrate the ability to monitor, track and document radiation exposure for inplant operations and maintenance teams in accordance with plant procedures. (TSC, OSC)

4. Emergency Facilities

Objectives

a. Demonstrate the ability to establish minimum staffing in the TSC and OSC within thirty (30) minutes of an Alert or higher Classification during an offhours event in accordance with procedures. (TSC, OSC)

b. Demonstrate the ability to augment the Control Room staff within thirty (30) minutes of an appropriate Emergency Classification in accordance with the procedures. (CR)

c. Demonstrate the ability to transfer Command and Control authority from the Control Room to the TSC. (TSC, CR)

d. Demonstrate the ability to transfer Command and Control authority from the TSC to the EOF. (TSC, EOF)

e. Demonstrate the ability to establish minimum staffing in the Emergency Operations Facility within approximately one (1) hour of the Site Emergency classification in accordance with EOF procedures. (EOF)

f. Using information supplied by the Exercise scenario, demonstrate the ability to record, track, and update information on the Status Boards at least every thirty (30) minutes. (CR, TSC, OSC, EOF)

g. Demonstrate the ability to document Operations and Maintenance Team activities in logs and on appropriate Status Boards. (OSC)

h. Demonstrate the ability to track in-plant job status in logs and on appropriate Status Boards. (CR, TSC, OSC, EOF)

i. Demonstrate the ability to exchange counterpart activity information between the ERFs at least every sixty (60) minutes. (CR, TSC, EOF, OSC)

j. Demonstrate the ability to update and disseminate information from the Electronic Status Board. (TSC, EOF)

5. Emergency Direction and Control

Objectives

a. Demonstrate the ability of the Directors and Managers to exert command and control in their respective areas of responsibility as specified in procedures. (CR, OSC, TSC, EOF)

b. Demonstrate the ability to coordinate and expedite Operations and Maintenance activities during abnormal and emergency situations. (TSC, OSC, EOF)

c. Demonstrate the ability to prioritize resources for Operations and Maintenance activities during abnormal and emergency situation. (TSC, EOF, OSC)

d. Demonstrate the ability to acquire and transport emergency equipment and supplies necessary to mitigate or control unsafe or abnormal plant conditions. (CR, TSC, EOF, OSC)

e. Demonstrate the ability of the Shift Engineer, Station Director, OSC Director and MEO to provide briefings and updates concerning plant status, event classification, and activities in progress at least every sixty (60) minutes. (CR, TSC, OSC, EOF)

f. Demonstrate the ability to provide access for the Mock NRC Site Team in accordance with Access Control procedures. (TSC, EOF)

g. Demonstrate the ability to interface the Mock NRC Site Team. (TSC, EOF)

h. Demonstrate the ability to identify and designate non-essential personnel within thirty (30) minutes after deciding to evacuate the site. (TSC, CR)

i. Demonstrate the ability of individuals in the Emergency Response Organization to perform their assigned duties and responsibilities as specified in Generic GSEP. (CR, TSC, OSC, EOF)

8. Miscellaneous

Objectives

a. Demonstrate the ability to determine the magnitude of the source term of a release. (TSC, EOF)

b. Demonstrate the ability to establish the relationship between effluent monitor readings and onsite and offsite exposures/contamination for various meteorological conditions. (TSC, EOF, Field Teams)

c. Demonstrate the ability to calculate release rate/projected doses if the primary instrumentation used for assessment is offscale, or inoperable, or if the release is unmonitored. (TSC, EOF)

d. Demonstrate the ability to assemble and account for On-site personnel within 30 minutes of a Site Emergency declaration. (CR, TSC)

e. Demonstrate the ability to explain the evacuation route, brief personnel and arrange for traffic control within one (1) hour of starting site evacuation. (TSC, EOF)

f. Demonstrate the ability to collect and count field samples in accordance with Environmental Sampling procedures. (Field Teams, TSC, EOF)

g. Demonstrate the ability to perform dose rate measurements in the environment for conditions presented in the scenario. (Field Teams)

h. Demonstrate the ability to dispatch the Environs Teams within forty-five (45) minutes of determination of the need for field samples. (TSC, OSC)

i. Demonstrate the ability to control/coordinate Environs Teams activities in accordance with CEPIPs. (TSC, EOF, Field Teams)

j. Demonstrate the ability to transfer control/coordination of Environs Teams activities from the TSC to the EOF in accordance with Station and EOF procedures. (TSC, EOF)

k. Demonstrate the ability of the Security force to respond to an emergency situation in accordance with procedures. (Security)

l. Demonstrate the ability of the Security force to coordinate actions and interact with the Emergency Response Organization. (Security)

9. Public Information

Objectives

None.

10. Recovery

Objectives

a. Demonstrate the ability to identify the criteria to enter a Recovery classification in accordance with procedures. (TSC, EOF)

b. Demonstrate the ability to generate a Recovery Plan which will return the plant to normal operations in accordance with CECo policies and procedures. (TSC, EOF)

c. Demonstrate the ability to coordinate recovery actions with the State and NRC. (TSC, EOF)

d. Demonstrate the ability to determine long-term recovery staffing requirements. (TSC, EOF)

ATTACHMENT 2

DRESDEN NUCLEAR POWER STATION
1992 GSEP EXERCISE
MAY 27, 1992

NARRATIVE SUMMARY

(Initial Conditions)

General

Chemical cleaning of the Unit One Spent Fuel Storage Racks has been scheduled for midnights 5/27/92. The NUKE-KLEAR Corp. has 10 people presently onsite making preparations for the scheduled cleaning. The Federal Bureau of Investigation (FBI) has notified Corporate Security of the increased terrorist threats received in their federal offices located in Chicago during the past week. Braidwood, Byron, Zion, LaSalle, Quad, and Dresden have been placed in a heightened awareness phase as a result of the information received from the FBI.

Unit Two:

Unit Two had been operating at 100% Power for the previous 80 days until today, when the Load Dispatcher gave the station the 'go ahead' to decrease power below 50% for the purpose of performing DOS 0250-02 Full Closure and Timing and Exercising of Main Steam Isolation Valves. The Reactor is presently operating at 40% power.

The 2A Control Rod Drive (CRD) pump is scheduled to be returned to service by 5/28/92 after being Out of Service (OOS) due to mechanical seal replacement.

At 2300, the IMs are in progress repairing a problem identified with the 2/3 Chimney SPING. The General Electric backup radioactive release monitoring system for the 2/3 chimney is in service. Chemistry department has been notified to take a grab sample once per shift. IMs are in progress with the final calibration of the 'A' SBGT flow control damper. Once the IMs are completed with the work request, operations will be notified. Operations will wait for completed work request to perform 10 hour operational run.

Unit Three:

Unit Three is presently in Day 30 of a Scheduled 70 day refuel outage. All fuel moves have successfully been accomplished and routine maintenance is presently underway on the 'backshift' to complete the servicing on equipment and components that have been targeted for overhaul.

UNUSUAL EVENT
(0015)

While on routine mobile patrol, a security officer hears what he analyzes to be a helicopter hovering over the protected area. The security officer searches in the dark sky above for five (5) minutes but cannot visually identify the exact location of the helicopter.

Three individuals are able to safely parachute into the Protected Area. Upon storing their parachutes and other equipment near a storage tank, they accost three contractors from the Nuke-Klear corporation, remove their security badges and bound and gage them in the Nuke-Klear supply trailor.

EXPECTED ACTION

The security officer should notify the Security Shift Supervisor or Response Team Leader that he has heard what appears to be an aircraft (helicopter) hovering over the Protected Area for the past five minutes. The Security Shift Supervisor should immediately notify the Shift Engineer of the incident. The Shift Engineer should classify an Unusual Event per EAL 8f or EAL 9b (Unusual Aircraft activity over the Protected Area).

ALERT
(0100 - 0215)

A security officer conducting mobile patrol within the Protected Area discovers suspicious material(s) by a storage tank near the North/West corner of the Unit 3 Turbine Building. The items include three (3) detached parachutes and a military style gun clip, electrical tape, splicing wires and detonating caps neatly packed behind one of the storage tanks.

EXPECTED ACTION

The Shift Engineer should declare an Alert per EAL 8k (Armed or forced protected area intrusion). The Shift Engineer may request the assistance from the local bomb squad due to the nature of the discovery (electrical tape and detonating caps). The security officer immediately notifies the Security Shift Supervisor, who in turn notifies the Shift Engineer of the discovery.

SITE EMERGENCY
(0215/0217 - END)

An explosion rocks the '2/3' cribhouse, spewing glass and dust onto the roadway. The blast damages several pieces of vital equipment contained within the cribhouse including the Circ Water Pumps, fire pump, electrical panels and Service Water System. The loss of the CW pumps causes a decrease and subsequent loss of Condenser Vacuum requiring the Shift Engineer to order a manual scram of the reactor. The RPS system will generate an automatic scram signal when condenser vacuum decreases to 23 inches of mercury.

When the operator initiates the manual scram, the RPS system does not de-energize, therefore no rod movement occurs. The crew enters DEOP 400-5, Failure to scram. Subsequently the crew initiates alternate Rod Insertion per DEOP 500-5, and after pulling RPS solenoid fuses, one half of the Control Rods insert. The remainder will be hydraulically locked. The crew must resort to other alternate scrams to get them inserted.

As part of DEOP 400-5 actions, the crew initiates the Isolation Condenser.

At approximately 0217, the Iso-Condenser will isolate due to a high flow trip switch failure. The IMs may be dispatched to repair a failed microswitch contained inside this flow switch.

At 0217, the Service Water System fails due to damages incurred by the explosion in the Cribhouse. The loss of service water will cause the failure to the instrument air compressor due to the loss of cooling water.

After the Assembly has sounded, the Nuke-Klear Corporation supervisor will phone the Shift Engineer to report that three of his workers are missing. He requests the Shift Engineer to check with Security to see if the individuals are in any of the Assembly Area.

Between 0230 and 0300 (after the assembly), one of the contractors manages to free his hands and phones the Shift Engineer's office to inform him of the encounter with three masked individuals.

At 0345 the State Police will notify the FBI that they have three individuals involved in a fatal head on collision with a tractor trailor on interstate 55. The individuals had in their possession, explosive devices with detailed maps and plans for a terroist attack upon a local Nuclear Power Plant. The State Police will fax photos of the individuals and the maps to the FBI in Chicago for further investigation. The FBI, being aware of the event at Dresden, contacts the Safeguard Specialist at the EOF and sends the maps and photos via fax to the facility.

At 0430 while performing surveys at some Environmental Monitoring Point, the Field Team van will be disabled due to an accident caused by a herd of Deer. All communication will be lost due to damage incurred in the crash. There are no injuries with the exception of the slain deer.

A security guard will hear an alarm in the facility and will investigate it source upon approaching the TLD room he will see smoke coming from underneath the door. A small type a fire has started within the room and has spread to the nearby source.

EXPECTED ACTION

After the explosion in the cribhouse is recognized as being caused by an explosive device, the Shift Engineer will upgrade the current ALERT to a SITE EMERGENCY per EAL 8m (Security event that results in the loss of control of any vital area). An assembly will be conducted at this time if it wasn't conducted at the ALERT phase to account for all personnel on site.

The ATWS will prompt the Shift Engineer to declare a SITE EMERGENCY per EAL 3k (Failure of the Reactor Protection System instrumentation to initiate and complete an automatic reactor SCRAM once Limiting Safety System Setting have been exceeded and manual scram was not successful) if he has not already done so. Efforts will be made to insert the control rods, but every effort aside from manually venting the piston will be successful in getting all the rods to insert.

The Shift Engineer will inform the TSC of the problem with the missing contractors and request that they perform an accountability to find the three individuals. The Security force should discover that the three individuals have apparently left the premises.

The Shift Engineer should discuss the report of the contractor to the TSC.

The combination of the "nearly" simultaneous Site Emergency Events may be enough to convince the Station Director to upgrade the Site Emergency to a General Emergency.

The EOF Safeguard Specialist should pass the information received from the FBI on to the EOF. The EOF should be able to identify the maps as being the Dresden's Common Cribhouse and the OffGas Absorber Vault. The EOF should then make the determination that there is an unexploded bomb in the vicinity of the Absorber Vault set to detonate at 0500 (according to the plans). A PAR should be made at this time due to the potential for a release to the environment if the bomb explodes.

At 0430, during the insertion of the sixth rod, a failure occurs on the 5 and 6 voltage supply to the RPIS system, causing light indication to be lost for the bottom half of the core.

The EOF will challenged with determining that the Field Team have encountered difficulties and need assistance.

The Security guard should use a fire extinguisher to extinguish the blaze. The EOF may make the determination that a habitability survey is required due to the potential damage to the calibration source.