

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Reports No. 50-440/86009(DRSS); 50-441/86003(DRSS)

Docket Nos. 50-440; 50-441

Licenses No. NPF-45; CPPR-149

Licensee: Cleveland Electric Illuminating  
Company  
Post Office Box 5000  
Cleveland, OH 44101

Facility Name: Perry Nuclear Power Plant, Units 1 and 2

Inspection At: Perry Site, Perry, OH

Inspection Conducted: April 14-17, 1986

Inspectors: *J. Plaski*  
W. Snell  
*for* Team Leader

4/30/86  
Date

*J. Foster*  
J. Foster

4/30/86  
Date

*M. Smith*  
M. Smith

4/30/86  
Date

Approved By: *J. Plaski*  
W. Snell, Chief  
*for* Emergency Preparedness  
Section

4/30/86  
Date

Inspection Summary

Inspection on April 14-17, 1986 (Reports No. 50-440/86009(DRSS);  
50-441/86003(DRSS))

Areas Inspected: Routine, announced inspection of the Perry Nuclear Power Plant emergency preparedness exercise involving observations by five NRC representatives of key functions and locations during the exercise. The inspection was conducted by three NRC inspectors and two consultants.

Results: Although no items of noncompliance, deficiencies or deviations were identified, three exercise weaknesses were identified and are summarized in the attachment to the report's transmittal letter.

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## DETAILS

### 1. Personnel Contacted

#### NRC Observers and Areas Observed

- \*W. Snell, Control Room (simulator), Technical Support Center (TSC),  
Emergency Operations Facility (EOF)
- \*J. Foster, TSC
- \*W. Herrington, Operations Support Center (OSC), Inplant Teams: Post  
Accident Sample (PASS), Medical Drill, Fire Drill
- \*J. Simonds, EOF  
T. Guilfoil, Control Room (simulator), EOF
- \*M. Smith, Joint Public Information Center (JPIC)

#### Cleveland Electric Illuminating Company

- A. Kaplan, Vice President, Nuclear Operations Division
- \*W. Coleman, GSE, Community Relations
- \*J. Waldron, Manager, PPTD
- \*D. Hulbert, Supervisor, Emergency Planning Unit
- \*C. Haslett, Governmental Affairs Representative
- \*D. Kaopliki, Supervising Operator
- \*M. Morrow, GE, Perry Training Section
- \*T. Corbett, Emergency Plan Responsible Instructor
- \*D. Takacs, GS Maintenance
- \*J. Anderson, Onsite Emergency Planner
- \*E. Schatz, Supervisor, Maintenance
- \*R. Mathews, Supervisor, Maintenance
- \*T. Oleksiak, Supervisor, Maintenance
- \*D. Rossetti, ALARA Coordinator
- \*P. Moskowitz, Supervisor, Health Physics
- \*W. Carnes, Consultant, ENERCON Services
- \*J. Bahleda, Quality Assurance
- \*A. Wagner, Consultant, ENERCON Services
- \*D. Mackney, Supervisor, Perry Training Section
- \*R. Cochran, Specialist, Chemistry Unit
- \*W. Burkhart, Supervisor, Radwaste
- \*G. Dunn, Specialist (PASS), Chemistry Unit
- \*D. Reyes, Supervisor, Chemistry
- \*K. Burkholder, Specialist, NUTECH Engineers
- \*S. Kensick, Superintendent, PPTD
- \*W. Kandra, GSE, Technical
- \*E. Williams, Electrical Engineer
- \*L. Corrice, Public Relations Representative
- \*C. Persson, Supervising Operator, RTS
- \*R. Tadvch, GS, Perry Training
- \*K. Novak, Supervisor, Site Protection
- \*J. Rupena, Fire Protection Specialist
- \*J. Gorman, Specialist, Site Protection
- \*E. Matsio, Fire Protection Specialist

- \*F. Stead, Manager, NED
- \*M. Kyster, Manager, PPOD
- \*T. Guilfoil, Manager, PPSD
- D. Cobb, Shift Supervisor
- J. Hanley, Unit Supervisor
- D. Phillips, Shift Technical Advisor
- B. Triplett, Supervising Operator
- S. Davis, Supervising Operator
- T. Terbizan, Control Room Communicator
- \*S. Goldman, Project Manager, NUTECH Engineers
- \*J. Kauffman, Specialist, NUTECH
- \*R. Palazzo, Specialist, NUTECH
- \*S. Reilly, Specialist, NUTECH
- \*S. Danielson, Specialist, NUTECH

\*Denotes personnel listed above who attended the exit interview on April 16, 1986.

## 2. Licensee Action on Previously Identified Items

(Closed) Open Item No. 50-440/86004-01: Inability of the VAX system to activate the emergency paging system. Investigation by the licensee indicated that the VAX was available, and could have performed its function, but the PBX (site phone system) was jammed with calls, so the VAX could not get through to autoactivate pagers. However, the OPX (Corporate System - microwave) was available, and could have been utilized if SAS personnel had recognized its availability. This has been corrected by retraining SAS personnel to ensure that they know to go to individual pagers if the PBX system is jammed, and revising the relevant procedure. Training on the use of both the PBX and OPX was conducted on February 21 and 24, 1986, including hands-on training. The inspectors reviewed documentation of the licensee's review and pertinent training records. This item is closed.

(Closed) Open Item No. 50-440/86004-02: Some Security personnel are not trained in Site Evacuation and accountability procedures. Records indicated that Security personnel have been trained in procedure SPI-0023, "Instructions for Personnel Accountability and Site Evacuation", and initial training has been conducted on Module 10, "Security Emergency Response". All three security shifts were trained on the above on April 10, and 11, 1986. The inspectors reviewed relevant training records. This item is closed.

## 3. General

An exercise of the Perry Power Plant Emergency Plan was conducted at the Perry Station on April 15, 1986. The exercise tested the licensee's and offsite emergency support organizations' capabilities to respond to a simulated accident scenario resulting in a major release of radioactive effluent. Attachment 1 to this report describes the Scope and Objectives of the exercise and Attachment 2 describes the exercise scenario. The exercise was integrated with a test of the State of Ohio, Lake County, Geauga County, and Ashtabula County Emergency Plans. This was a full participation exercise for these counties and the State of Ohio.

#### 4. General Observations

##### a. Procedures

This exercise was conducted in accordance with 10 CFR Part 50, Appendix E requirements using the Perry Nuclear Power Station Emergency Plan and Emergency Plan Implementing Procedures.

##### b. Coordination

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

##### c. Observers

The licensee's observers monitored and critiqued this exercise along with five NRC observers and a number of Federal Emergency Management Agency (FEMA) observers. FEMA observations on the response of State and local governments will be provided in a separate report.

##### d. Exercise Critiques

A critique was held with the licensee and NRC representatives on April 16, 1986, the day after the exercise. The NRC discussed the observed strengths and weaknesses during the exit interview. Attending personnel are listed in Section 1. In addition, a public critique was held at the Perry Town Hall on April 17, 1986, to present the preliminary onsite and offsite findings of the NRC and FEMA exercise observers.

#### 5. Specific Observations

##### a. Control Room

Proper classifications of the Notice of Unusual Event (NUE) and Alert were made, based on the appropriate Emergency Action Level (EAL) for each event. Notifications, except as noted below, were accurate and timely. Operators showed coordination, determination, and perseverance in their efforts to mitigate the effects of the simulated accident. Operators appeared to be well trained, were knowledgeable of their procedures, used their procedures properly, and responded appropriately to operational and safety systems failures. Operators quickly and efficiently reviewed their EALS, which minimized the time necessary to make classifications for the NUE and Alert.

Good communications were maintained with other Emergency Response Facilities throughout the exercise. The Secondary Alarm Station (SAS) communications were prompt, and accurate, providing notifications, reports and other needed information on a timely basis. SAS personnel quickly and efficiently carried out all requests from Control Room personnel. There was good chain-of-command evident. The Shift Supervisor properly guided the Control Room Team and kept them informed of plant and overall conditions.

Decisions were well thought out and appropriate to the situation. The decision to evacuate the area of the simulated resin spill demonstrated forethought and concern for keeping radiation exposures as low as possible.

Actions in this area were generally appropriate, with the following exceptions:

- (1) The communicator contacting the NRC Operations Center used a notification form (Form EPI-B1) which would not be acceptable in an actual event, as it does not contain sufficient information for NRC purposes, and is in a different format from that used by the NRC Duty Officer. The communicator should be aware that the NRC will be asking for additional information (e.g., the reason for the emergency classification).
- (2) The Alert notification time for the Coast Guard (17 minutes) exceeded the notification goal of 15 minutes. This was partially due to the communicator waiting for the Shift Supervisor's signature on the notification form prior to beginning his notifications (required by procedure). As a result of this delay, notifications were not begun until 14 minutes after the Alert declaration. This is an Open Item (440/86009-01; 441/86003-01).
- (3) There was a communication problem between the Control Room and the onsite teams responding to the contaminated injured man. The Control Room initially did not understand the complete situation at the injury site, and the need to promptly shut off power to a power cable in contact with the victim. None of the initial communications from the rescue team indicated that they could not begin to work on the victim until the power was shutdown. As a result, Control Room personnel did not appreciate the need for prompt action. When finally advised of the situation, the Control Room proposed sending an individual with a pole and insulating gloves to move the cable. In addition, there was no discussion of the potential for contamination in the area until about 15 minutes after the injury occurred. This is an Open Item (440/86009-02; 441/86003-02).
- (4) The plant public address announcement (PA) page made at approximately 0809 hours, announcing the resin spill and advising personnel to evacuate the area, was garbled. Although the Control Room received a telephone call at 0812 hours, informing them that the last announcement was garbled, the announcement was not repeated until 0827 hours. The announcement was repeated following a second call requesting clarification of the previous announcement.
- (5) Chronological records were initiated in the Control Room. However, these records (logs) were marginal in that it appeared reconstruction of Control Room actions would be difficult, and the logs were in no formal format.

- (6) Habitability (radiological survey) of the Control Room was not confirmed, nor periodically assessed. Dosimeters were not read at appropriate frequencies.
- (7) Some communications (hardware) problems existed, or developed during the exercise, which are not included in above items: two radiotelephones failed during the exercise; the three-way telephone failed twice (briefly); some radio transmissions (from the fire scene, for example) were not understood due to transmission or reception problems; the Operations and Instrument and Control channels of the SAS radio interfered with other channels.

Based on the above findings, the following item should be considered for improvement:

- Revise the notification procedure to include a notification form compatible with that utilized by the NRC Duty Officer for use when notifying the NRC.

b. Technical Support Center (TSC)

The TSC activation was timely, and personnel began their tasks promptly upon arrival. Security measures worked well. Status boards were filled out quickly, and telephones checked for operation within 15 minutes of the decision to activate the TSC.

Procedures, logs, and checklists were well utilized. Press releases were discussed with the Operations Manager (OM), and approved prior to issuance. Noise levels were acceptable, and the plant parameters status boards were updated every 15 minutes during the entire exercise. There were regular briefings by the Operations Manager, regular habitability checks (radiation surveys) and dosimeter readings.

Anticipatory discussions, for example those involving the resin spill potential for airborne contamination, were very good. Projections were made to determine the radiation doses workers would receive prior to sending them in to clean up the resin spill. Contingency planning was done, taking into account the possibility for degrading conditions. There was good communication with the Control Room and the EOF. Notifications were made as required, and within the required timeframe (Site Area Emergency). The replacement OM took care to familiarize himself with the ongoing situation via briefings, log reviews, and discussions before relieving the OM.

The decision to activate the JPIC prior to the declaration of a Site Area Emergency, due to anticipated public interest was prudent. Considering that the an Unusual Event and an Alert due to unrelated events had already occurred, followed by a reactor scram, media interest would be expected to be very high.

The assembly/accountability of approximately 485 plant personnel was performed in 30 minutes, with nine people unaccounted for. Those unaccounted for were located by the security force within an additional 30 minutes.

Activities in this area were acceptable, with the following exceptions:

- (1) Procedural criteria for downgrading an EAL to a lesser level are contained in the implementing procedures, but were not considered while downgrading the Action Level near the termination of the exercise. In addition, a 13 page unapproved form was utilized in recovery planning. The form appeared to have merit, and should be included in the recovery section of the procedures, with a reference to the criteria for downgrading an EAL. However, procedures should not be used until approved. This is an Open Item (50-440/86009-03; 50-441/86003-03).
- (2) TSC Status boards do not have a location for entry of containment radiation levels (unless selected for listing). This is often a critical parameter, and should have a standard status board listing.

c. Operational Support Center (OSC)

The OSC was activated at 0911 and was fully operational at 0915 hours. At this time all major OSC functions were filled. In general, the OSC appeared to be capable of providing operational support to the emergency response effort.

Status boards were kept current at all times and communications appeared to be adequate. Periodic status updates by the OSC Manager and the Emergency Director were very useful. The facility had an impressive pool of support personnel and was able to field 27 onsite teams during the exercise, with up to five teams operational at one time.

Teams were observed to be well equipped and thoroughly briefed prior to plant entries. Entry teams were well controlled by the OSC with respect to instruction and safety. Health Physics initiated adequate habitability monitoring when radioactive releases began in the plant.

In general, actions in the OSC were adequate, with the following exception:

- Communications in the OSC were difficult due to ambient noise levels. The Maintenance Support Supervisor's communications were overly loud, adding to the difficulty.

d. Medical Drill and Fire Drill

The licensee demonstrated a competent medical response to a contaminated injured man. Personnel trained in first aid (Security) and health physics promptly responded to a report of an injured man. Responding personnel showed good judgment in not touching the electrical shock patient until power to the panel (and the cable touching the victim) was disconnected. The medical care was very good as personnel concentrated on the wound and did not over-react to the potential for minor radiological contamination. A minor delay in departure of the ambulance was later determined to be due to the ambulance team following their own procedures for ascertaining the status of a patient before departure.

The licensee also demonstrated a commendable fire brigade response. The personnel responding to a simulated fire on the A-Chiller were well equipped and appeared to be well trained. The fire was declared out 21 minutes after the fire alarm was sounded.

e. Post Accident Sample (PASS)

The PASS area was surveyed at 1340 hours in preparation for sampling. Efforts to obtain a sample began at 1345 and were completed by 1505. In this time, containment air, offgas, and reactor coolant (liquid, diluted) were obtained. The sample team members appeared to be very well trained and the procedure facilitated obtaining PASS samples in a reasonable time period.

It was observed that PASS team personnel removed the faceplates from their respiratory equipment after being advised that there was no airborne contamination hazard at the PASS panel. However, it was observed that when a syringe was withdrawn from the panel the syringe needle flipped and could have caused the spread of radioactive contamination. The licensee should evaluate the need to maintain respiratory protection continuously during PASS sampling or prevent the syringe needle from flipping to stop the possibility of contamination from spilled or sprayed liquid during the sampling process.

f. Emergency Operations Facility (EOF)

EOF activation was accomplished in a professional manner, within 43 minutes of the decision to activate. EOF staff briefings were made periodically, and the Emergency Coordinator held conferences with his principal advisors. Status boards were well maintained and updated periodically (15 minute intervals). Briefings and conferences aided understanding of plant conditions. Health Physics personnel circulated at intervals, performing radiation surveys, verifying radiation monitors, and reminding personnel to check their dosimeters. Management control by all supervisors was apparent.

Excellent coordination was maintained with State personnel in the EOF and with County Commissioners over the telephone. County Commissioners, asked by the licensee if they felt that the telephone communication was adequate, indicated their satisfaction.

The Information Liaison did an excellent job of passing information to the JPIC in a timely manner. Coordination and content of press releases by the Information Liaison was also commendable. The Emergency Coordinator approved all press releases prior to release.

Protective Action Recommendations (PARs) to offsite agencies were, in general, appropriate, well discussed, and timely (except as noted below). The licensee did an excellent job of coordinating the bases for these recommendations with State and County representatives.

The Radiation Monitoring Teams (RMTs) were well controlled from the EOF. They were kept informed of meteorological conditions and apprised of the information being passed to the public in press releases. Comparisons were made between county RMT readings and licensee RMT readings. RMT readings were also compared with dose projections as an additional verification of field team information.

EOF personnel effectively used dose assessment projections in assisting with PARs. When, as the scenario progressed, they obtained firm data on actual release duration, it was utilized instead of system default values.

The Emergency Coordinator shift change was accomplished in a professional manner, and an announcement was made to advise personnel of the change.

Recovery planning was accomplished in a professional manner. Recovery/reentry was covered in thorough discussions. A meeting was set up with State and County Commissioners to discuss reentry by the public into evacuated areas; soil and vegetation sampling, etc.

Administrative personnel did an excellent job of administrative and logistical control (e.g., shift change scheduling, food procurement, lodging arrangements, access into evacuated areas through police road blocks).

In general, actions in this area were adequate, with the following exceptions:

- (1) The MIDAS dose assessment computer system does not specify the release pathway (e.g., unit vent, offgas vent) or effluent monitor value used in the calculation; or flow rate. This information should be noted on the printout.
- (2) The upgrading of the protective recommendations from sheltering to evacuation could have been done earlier, based on the decreasing reactor vessel water level, and the clear anticipation of core uncover. It was not until the active fuel was actually uncovered that the PAG was actually upgraded to include evacuation.
- (3) The trending of reactor vessel water level was difficult due to the format of the status board. This critical parameter needs better tracking and trending.

Based on the above findings, the following item should be considered for improvement:

- Provide additional training on anticipatory protective action recommendations based on degrading plant conditions.

g. JPIC

The Public Information organization demonstrated its ability to thoroughly inform the media and the public in a timely manner.

The JPIC was completely operational within one hour of activation. Frequent and thorough press briefings were conducted and excellent coordination with State and County representatives was demonstrated. Public Information Officers (PIO) were responsive to all inquiries from the press and from college students who served as simulated press representatives. Excellent facilities and equipment were available for use by the media, and information packets were available to all participants. Security and access control was well organized and maintained throughout the exercise.

Rumor control was located in two adjoining rooms. Six people were located in the main room to answer telephone calls of concerned citizens, played by controllers at the EOF. Information regarding licensee, State, and County activities was continuously updated on a large status board located in the main room. Two people were located in the second room to monitor the three main television stations serving the area. Broadcasts and interviews were advance taped and inserted into special films taped for this exercise. Incorrect information noted during news breaks or special broadcasts were written in hourly reports. The hourly reports were reviewed by media coordinators for inconsistencies, and if an error was noted, the information was corrected during the next media briefing.

Shift changes and requirements for long term operation were adequate. Plans for overnight and continued operations were developed. Implementation of these plans had begun when the exercise was terminated.

6. Exercise Scenario and Control

The exercise scenario was considered challenging and difficult, and adequately exercised all aspects of the Emergency Plan. It was noted that the task of dose assessment would have been more challenging if a wind shift had been added to the scenario.

A minor scenario/controller problem was observed in that the Control Room personnel were not provided with all of the initial conditions for the scenario (resin transfer in progress). Therefore, they did not understand the reason for the Area Radiation Alarm, or the report of the simulated resin spill, and had to ask for additional information.

7. Exit Interview

The inspectors held an exit interview the day after the exercise on April 16, 1986, with the representatives denoted in Section 1. The NRC Team Leader discussed the scope and findings of the inspection. The licensee was also asked if any of the information discussed during the exit was proprietary. The licensee responded that none of the information was proprietary.

Attachments:

1. Perry Exercise Scope and Objectives
2. Perry Exercise Scenario Outline

## 1.0 SCOPE AND OBJECTIVES

### 1.1 Scope

The 1986 Emergency Preparedness Exercise, to be conducted on April 15, 1986, will simulate accident events culminating in a radiological accident with resultant off-site releases from the Perry Nuclear Power Plant (PNPP), located in North Perry Village, Lake County, Ohio. The Exercise will involve events that test the effectiveness of the PNPP Emergency Preparedness Program and the integrated capabilities of the emergency organizations of the State of Ohio, and the Counties of Lake, Geauga, and Ashtabula. The Exercise will include the mobilization of state and local resources adequate to verify their capability to respond to an accident.

The exercise objectives are provided as separate sections, divided into the objectives for the Plant (Section 1.2) and those of each state/local agency (Section 1.3).

### 1.2 On-Site Objectives

The major objective of the exercise is to demonstrate the response capabilities of the PNPP Emergency Response Organization. Within this overall objective, numerous individual objectives are specified as follows:

- 1.2.1 Demonstrate the ability to mobilize, staff and activate Emergency Response Facilities promptly.
- 1.2.2 Demonstrate the ability to fully staff facilities and to maintain staffing on an around the clock basis through the use of relief shift rosters (limited shift changes may occur to allow for operational restrictions).
- 1.2.3 Demonstrate the ability to make decisions and to coordinate emergency activities.
- 1.2.4 Demonstrate the adequacy of facilities and displays to support emergency operations.
- 1.2.5 Demonstrate the ability to communicate with all appropriate locations, organizations, and field personnel.
- 1.2.6 Demonstrate the ability to mobilize and deploy Radiation Monitoring Teams.
- 1.2.7 Demonstrate the appropriate equipment and procedures for determining ambient radiation levels.
- 1.2.8 Demonstrate the appropriate equipment and procedures for measurement of airborne radioiodine concentrations as low as  $10E-7$  uCi/cc in the presence of noble gases.

- 1.2.9 Demonstrate the appropriate equipment and procedures for the collection of environmental samples.
- 1.2.10 Demonstrate the ability to project dosage to the public via plume exposure, based on plant and field data, and to determine appropriate protective measures, based on Protective Action Guidelines, available shelter, evacuation time estimates, and other appropriate factors.
- 1.2.11 Demonstrate the ability to notify off-site officials and agencies within 15 minutes of an emergency.
- 1.2.12 Demonstrate the ability to periodically update off-site officials and agencies of the status of the emergency based on data available at PNPP.
- 1.2.13 Demonstrate the ability to notify emergency support pools as appropriate (i.e., INPO, ANI, etc.).
- 1.2.14 Demonstrate the ability to notify on-site personnel using plant alarms and public address systems.
- 1.2.15 Demonstrate the ability to effectively assess incident conditions and to properly classify the incident.
- 1.2.16 Demonstrate the organizational ability and resources necessary to manage an accountability of personnel within the protected area.
- 1.2.17 Demonstrate the organizational ability and resources necessary to manage an orderly evacuation of protected area personnel.
- 1.2.18 Demonstrate the organizational ability and resources necessary to control access to the site.
- 1.2.19 Demonstrate the ability to continuously monitor and control emergency workers exposure.
- 1.2.20 Demonstrate the ability to brief the media in a clear, accurate, and timely manner.
- 1.2.21 Demonstrate the ability to provide advance coordination of information released to the public.
- 1.2.22 Demonstrate the ability to establish and operate rumor control in a coordinated fashion.
- 1.2.23 Demonstrate the adequacy of ambulance facilities and procedures for handling a contaminated, injured individual.

- 1.2.24 Demonstrate the adequacy of hospital facilities and procedures for handling a contaminated, injured individual.
- 1.2.25 Demonstrate the adequacy of on-site first aid facilities, equipment, and procedures for handling a contaminated, injured individual.
- 1.2.26 demonstrate the adequacy of in-plant post accident sampling techniques and analysis.
- 1.2.27 Demonstrate the ability to determine and implement appropriate measures for controlled reentry and recovery.

1.3 Off-Site Objectives

The off-site agencies' objectives are found as follows:

<u>Agency</u>	<u>Attachment</u>
State of Ohio	1
Lake County	2
Ashtabula County	3
Geauga County	4
FEMA Example Objectives Cross-Reference	5

The off-site exercise objectives are written in reference to the FEMA Example Exercise Objectives. Thus, for example, State of Ohio Exercise Objective No. '1 discusses how the State of Ohio will meet FEMA Objective No. 1. The state and counties correspond by number to the FEMA Example Objectives.

STATE OF OHIO  
PERRY NUCLEAR POWER PLANT  
FINAL OBJECTIVES  
APRIL 15, 1986 EXERCISE

1. Demonstrate ability to mobilize staff and activate facilities promptly.

LIMITING CONDITIONS: Small Scale Exercise - All State response personnel will be pre-positioned, limited action at the State Emergency Operations Center (EOC); State participants are Ohio Disaster Services Agency (DSA) Communications, Ohio DSA Public Information Office (PIO), State Dose Assessment, State Radiological Monitoring Teams and Communications Van. Also, Ohio DSA and the Ohio Department of Health (ODH) will participate at the Utility Emergency Operations Facility (EOF).

2. Demonstrate ability to fully staff facilities and maintain staffing around the clock.

LIMITING CONDITIONS:

Field Monitoring - Roster  
Communications Van - Roster  
Ohio DSA PIO - Double Staffing at the Joint Public Information Center (JPIC)  
Dose Assessment - Double Staffing  
Communications - Roster

3. Demonstrate ability to make decisions and to coordinate emergency activities.

LIMITING CONDITIONS: In the Executive Group, the decision maker will be the Ohio DSA Deputy Director; the Dose Assessment Group Leader will make decisions and recommendations to both the Governor and the affected counties.

4. Demonstrate adequacy of facilities and displays to support emergency operations.

LIMITING CONDITIONS: For staff and facilities listed in #1.

5. Demonstrate ability to communicate with all appropriate locations, organizations, and field personnel.

LIMITING CONDITIONS: None

6. Demonstrate ability to mobilize and deploy field monitoring teams in a timely fashion.

LIMITING CONDITIONS: All teams will be pre-positioned.

7. Demonstrate appropriate equipment and procedures for determining ambient radiation levels.

LIMITING CONDITIONS: None

8. Demonstrate appropriate equipment and procedures for measurement of airborne radioiodine concentrations as low as  $10^{-7}$  uCi/cc in the presence of noble gases.

LIMITING CONDITIONS: None

9. Demonstrate appropriate equipment and procedures for collection, transport and analysis of samples of soil, vegetation, snow, water, and milk.

LIMITING CONDITIONS: All applicable samples with the exception of milk; no transport to Columbus.

10. Demonstrate ability to project dosage to the public via plume exposure, based on plant and field data, and to determine appropriate protective measures, based on PAG's, available shelter, evacuation time estimates, and all other appropriate factors.

LIMITING CONDITIONS: None

11. Demonstrate ability to project dosage to the public via ingestion pathway exposure, based on field data, and to determine appropriate protective measures, based on PAG's and other relevant factors.

LIMITING CONDITIONS: Will not be demonstrated.

12. Demonstrate ability to implement protective actions for ingestion pathway hazards.

LIMITING CONDITIONS: Organizational ability and protective action recommendations based on release data.

13. Demonstrate ability to alert the public within the 10-mile EPZ, and disseminate an initial instructional message, within 15 minutes.

LIMITING CONDITIONS: None

14. Demonstrate ability to formulate and distribute appropriate instructions to the public, in a timely fashion.

LIMITING CONDITIONS: None

15. Demonstrate the organizational ability and resources necessary to manage an orderly evacuation of all or part of the plume EPZ.

LIMITING CONDITIONS: None

16. Demonstrate the organizational ability and resources necessary to deal with impediments to evacuation, as inclement weather or traffic obstructions.

LIMITING CONDITIONS: Will not be demonstrated.

17. Demonstrate the organizational ability and resources necessary to control access to an evacuated area.

LIMITING CONDITIONS: Will not be demonstrated.

18. Demonstrate the organizational ability and resources necessary to effect an orderly evacuation of mobility-impaired individuals within the plume EPZ.

LIMITING CONDITIONS: Will not be demonstrated.

19. Demonstrate the organizational ability and resources necessary to effect an orderly evacuation of schools within the plume EPZ.

LIMITING CONDITIONS: Will not be demonstrated.

20. Demonstrate ability to continuously monitor and control emergency worker exposure.

LIMITING CONDITIONS: None

21. Demonstrate the ability to make the decision, based on predetermined criteria, whether to issue KI to emergency workers and/or the general populations.

LIMITING CONDITIONS: Will not be demonstrated.

22. Demonstrate the ability to supply and administer KI, once the decision has been made to do so.

LIMITING CONDITIONS: Will not be demonstrated.

23. Demonstrate ability to effect an orderly evacuation of on-site personnel.

LIMITING CONDITIONS: Will not be demonstrated.

24. Demonstrate ability to brief the media in a clear, accurate and timely manner.

LIMITING CONDITIONS: JPIC only.

25. Demonstrate ability to provide advance coordination of information released.

LIMITING CONDITIONS: JPIC only.

26. Demonstrate ability to establish and operate rumor control in a coordinated fashion.

LIMITING CONDITIONS: Will not be demonstrated.

27. Demonstrate adequacy of procedures for registration and radiological monitoring of evacuees.

LIMITING CONDITIONS: Will not be demonstrated.

28. Demonstrate adequacy of facilities for mass care of evacuees.

LIMITING CONDITIONS: Will not be demonstrated.

29. Demonstrate adequate equipment and procedures for decontamination of emergency workers, equipment and vehicles.

LIMITING CONDITIONS: Will not be demonstrated.

30. Demonstrate adequacy of ambulance facilities and procedures for handling contaminated individuals.

LIMITING CONDITIONS: Will not be demonstrated.

31. Demonstrate adequacy of hospital facilities and procedures for handling contaminated individuals.

LIMITING CONDITIONS: Will not be demonstrated.

32. Demonstrate ability to identify need for, request, and obtain Federal assistance.

LIMITING CONDITIONS: None

33. Demonstrate ability to relocate to and operate the alternate EOF/EOC.

LIMITING CONDITIONS: Will not be demonstrated.

34. Demonstrate ability to estimate total population exposure.

LIMITING CONDITIONS: Will not be demonstrated.

35. Demonstrate ability to determine and implement appropriate measures for controlled recovery and re-entry.

LIMITING CONDITIONS: Will not be demonstrated.

LAKE COUNTY  
OBJECTIVES  
FOR THE  
APRIL 15, 1986 EXERCISE

1. Demonstrate ability to mobilize, staff and activate facilities promptly.

LIMITING CONDITIONS: EOC and JPIC staff, two field monitoring teams, and the Madison School District Superintendent's Office will be staffed as per procedures except that the decontamination station at the EOC will not be demonstrated. Red Bird Elementary School will be staffed by the Principal only. The North High School Care Center and associated decontamination team will be demonstrated from 3:00 to 4:00 p.m. only and two "evacuees" will be processed. Minor adjustments to the care center's staff and decontamination team's locations may be necessary so as to minimize disruption to normal school functions. Traffic and access control points will be activated at appropriate times as dictated by the scenario. The Referral Point on I-90 (Westbound) will be activated from 11:15 a.m. to 12:15 p.m. only. Lake County Hospital - East will receive patient(s) from on-site only.

2. Demonstrate ability to fully staff facilities and maintain staffing around the clock.

LIMITING CONDITIONS: The EOC, JPIC, and Care Center will have rosters showing 24 hour staffing and the EOC will also demonstrate double staffing. The field monitoring teams, referral point, decontamination team, and school district personnel do not have 24 hour duties, but will show a list of all trained personnel in addition to the staff demonstrating. (Explanation: generally, there are more people trained than necessary to perform the function.) Traffic and access control staffing in a continuing basis will be procedurally demonstrated in the EOC.

3. Demonstrate ability to make decisions and to coordinate emergency activities.

LIMITING CONDITIONS: As per objectives to be demonstrated.

4. Demonstrate adequacy of facilities and displays to support emergency operations.

LIMITING CONDITIONS: The EOC will demonstrate emergency power and feeding; the dormitory area will be shown. The JPIC, Lake County Hospital - East, and referral point will be fully demonstrated. The North High School care center will demonstrate the functions of a care center, including: registration with locator service; billeting (set up of 6 cots with blankets and identify source of more); food service (show the kitchen and cafeteria area only); health services. Directional signs will be put in place. The decontamination monitoring team will demonstrate fully with the exception that no person will shower and no vehicle will be washed.

5. Demonstrate ability to communicate with all appropriate locations, organizations, and field personnel.

LIMITING CONDITIONS: As needed to areas necessary to accomplish objectives agreed upon.

6. Demonstrate ability to mobilize and deploy field monitoring teams in a timely fashion.

LIMITING CONDITIONS: The monitoring teams as described in the plan will be demonstrated.

7. Demonstrate appropriate equipment and procedures for determining ambient radiation levels.

LIMITING CONDITIONS: As per the plan.

8. Demonstrate appropriate equipment and procedures for measurement of airborne radioiodine concentrations as low as 10-7uCi/cc in the presence of noble gases.

LIMITING CONDITIONS: None

9. Demonstrate appropriate equipment and procedures for collection, transport and analysis of samples of soil, vegetation, snow, water and milk.

LIMITING CONDITIONS: Will not be demonstrated.

10. Demonstrate ability to project dosage to the public via plume exposure, based on plant and field data, and to determine appropriate protective measures, based on PAG's, available shelter, evacuation time estimates, and all other appropriate factors.

LIMITING CONDITIONS: Will not be demonstrated.

11. Demonstrate ability to project dosage to the public via ingestion pathway exposure, based on field data, and to determine appropriate protective measures, based on PAG's and other relevant factors.

LIMITING CONDITIONS: Will not be demonstrated.

12. Demonstrate ability to implement protective actions for ingestion pathway hazards.

LIMITING CONDITIONS: Will not be demonstrated.

13. Demonstrate ability to alert the public within the 10-mile EPZ, and disseminate an initial instructional message, within 15 minutes.

LIMITING CONDITIONS: Silent siren activation signal will be sent once. There will be no actual broadcast of an EBS message. No Route Alerting will be demonstrated.

14. Demonstrate ability to formulate and distribute appropriate instructions to the public, in a timely fashion.

LIMITING CONDITIONS: Demonstrated at each protective action decision, but only the first siren sounding and formulation and distribution of instructions to the public will be timed on the "15 minute clock".

15. Demonstrate the organizational ability and resources necessary to manage an orderly evacuation of all or part of the plume EPZ.

LIMITING CONDITIONS: Will procedurally demonstrated in EOC via the use of SOPs, displays, and notifications. Additionally, field activities as noted under other objectives will be demonstrated.

The three traffic control points are intended as support to the nuclear power plant evacuation of non-essential personnel and will be required for only one hour.

16. Demonstrate the organizational ability and resources necessary to deal with impediments to evacuation, as inclement weather or traffic obstructions.

LIMITING CONDITIONS: Organizational ability and resources necessary to deal with impediments to evacuation will be demonstrated at the EOC only, through the use of SOPs, resource list, and displays.

17. Demonstrate the organizational ability and resources necessary to control access to an evacuated area.

LIMITING CONDITIONS: One access control point will be staffed and supplied with the resources necessary. The remaining access control points will be procedurally demonstrated in the EOC via SOPs and displays.

18. Demonstrate the organizational ability and resources necessary to effect an orderly evacuation of mobility-impaired individuals within the plume EPZ.

LIMITING CONDITIONS: Will be procedurally demonstrated in the EOC by SOPs, list of mobility-impaired, and by showing and explaining the means of keeping the list current.

19. Demonstrate organizational ability and resources necessary to effect an orderly evacuation of schools within the plume EPZ.

LIMITING CONDITIONS: The EOC will make notifications to school districts in the EPZ and to support school districts. The Madison School District will make notifications to each of its school buildings and other appropriate staff to include bus drivers. Three buses will be dispatched to the Red Bird Elementary School, but children will not board the buses. The school principal and bus drivers will explain bus loading procedure and demonstrate knowledge of where students would be relocated but the buses will not move to the relocation school.

20. Demonstrate ability to continuously monitor and control emergency worker exposure.

LIMITING CONDITIONS: Emergency workers responding inside the 10-mile EPZ and decontamination monitoring team personnel will have dosimetry and the proper recording form as specified in the plan. Workers will demonstrate knowledge of how often to read dosimeters and when to report readings to supervisors for relay to the EOC. The EOC will demonstrate its active role by conceptually playing notices from the EOC to all field agencies.

21. Demonstrate the ability to make the decision, based on predetermined criteria, whether to issue KI to emergency workers and/or the general populations.

LIMITING CONDITIONS: Will not be demonstrated.

22. Demonstrate the ability to supply and administer KI, once the decision has been made to do so.

LIMITING CONDITIONS: Will not be demonstrated.

23. Demonstrate ability to effect an orderly evacuation of on-site personnel.

LIMITING CONDITIONS: The medical drill at the plant will involve response of Perry Township Fire Dept. ambulance transporting the victim to Lake County Hospital - East.

At Site Area Emergency, the Perry Nuclear Power Plant (PNPP) will conduct its accountability drill and evacuation of non-essential site personnel will be simulated. Three traffic control points will be activated to assist with the simulated evacuation of PNPP personnel. These traffic control points will be staffed for one hour, unless evaluated sooner.

24. Demonstrate ability to brief the media in a clear, accurate and timely manner.

LIMITING CONDITIONS: The Lake County PIO conducts media briefings at the JPIC. The PIO at the JPIC is informed of pertinent response activities and events by a PIO Liaison Officer in the EOC. Communication between the PIO Liaison Officer and the PIO is via dedicated telephone and by hard copy via telecopier.

News media personnel will be invited into the EOC for a limited time for news coverage of the exercise.

25. Demonstrate ability to provide advance coordination of information released.

LIMITING CONDITIONS: None

26. Demonstrate ability to establish and operate rumor control in a coordinated fashion.

LIMITING CONDITIONS: Will be demonstrated as per the county plan which establishes this function in the EOC.

27. Demonstrate adequacy of procedures for registration and radiological monitoring of evacuees.

LIMITING CONDITIONS: Two evacuees will be processed through the decontamination monitoring process and through care center registration. These functions will be demonstrated fully, but minor physical adjustments may be necessary so as to minimize disruption to regular school functions (Examples: the registration tables and cots may be set off to the side.) The decontamination monitoring team will set up for decontamination of people and vehicles, but no actual decontamination will be demonstrated.

The care center will show 24 hour staffing by roster and will be able to identify sources of required resources (food, cots, etc.).

The decontamination monitoring team and the care center will be fully staffed and operational from 3:00 to 4:00 p.m. only.

28. Demonstrate adequacy of facilities for mass care of evacuees.

LIMITING CONDITIONS: The areas of North High School in which evacuees will be registered, housed, and fed can be shown. Food preparation facilities and shower areas will be shown. Special areas for the sick and handicapped, for recreation, and for evacuee viewing of television news coverage of the "accident" will be shown. No actual food preparation or feeding will be demonstrated. Only six cots will be set up.

29. Demonstrate adequate equipment and procedures for decontamination of emergency workers, equipment and vehicles.

LIMITING CONDITIONS: Will not be demonstrated.

30. Demonstrate adequacy of ambulance facilities and procedures for handling contaminated individuals.

LIMITING CONDITIONS: Perry Township Fire Department will respond on-site at the power plant and transport the victim to Lake County Hospital - East.

31. Demonstrate adequacy of hospital facilities and procedures for handling contaminated individuals.

LIMITING CONDITIONS: The Lake County Hospital - East will receive the victim from the power plant only.

32. Demonstrate ability to identify need for, request, and obtain Federal assistance.

LIMITING CONDITIONS: Will not be demonstrated.

33. Demonstrate ability to relocate to and operate the alternate EOF/EOC.

LIMITING CONDITIONS: Will not be demonstrated.

34. Demonstrate ability to estimate total population exposure.

LIMITING CONDITIONS: Will not be demonstrated.

35. Demonstrate ability to determine and implement appropriate measures for controlled recovery and re-entry.

LIMITING CONDITIONS: Will not be demonstrated.

ASHTABULA COUNTY  
OBJECTIVES  
FOR THE  
APRIL 15, 1986 EXERCISE

1. Demonstrate ability to mobilize staff, and activate the facilities promptly.

LIMITING CONDITIONS: Demonstrate mobilization of EOC, JPIC, a care center, an emergency worker monitoring/decontamination station, and an emergency room at Ashtabula County Medical Center (ACMC) to handle contaminate/injured person.

2. Demonstrate ability to fully staff facilities and maintain staffing around the clock.

LIMITING CONDITIONS: The EOC will demonstrate 24 hour staffing via roster (for alternate EOC staff) with some double staffing. The following EOC positions will be double staffed: Amateur Radio Coordinator, School Services Officer, Message Controller, Transportation Officer, Health Commissioner, Rumor Controller and EOF Liaison. The PIO at JPIC will demonstrate 24 hour staffing via roster (for alternate PIO).

3. Demonstrate ability to make decisions and to coordinate emergency activities.

LIMITING CONDITIONS: None

4. Demonstrate adequacy of facilities and displays to support emergency operations.

LIMITING CONDITIONS: Emergency Worker Monitoring/Decontamination Station, care center and ACMC to play out of sequence. Although available, back-up power will not be demonstrated in the EOC due to the disruption to normal day to day activities to the other parts of the building not involved in the exercise.

5. Demonstrate ability to communicate with all appropriate locations, organizations, and field personnel.

LIMITING CONDITIONS: None

6. Demonstrate ability to mobilize and deploy field monitoring tests in a timely fashion.

LIMITING CONDITIONS: Will not be demonstrated.

7. Demonstrate appropriate equipment and procedures for determining ambient radiation levels.

LIMITING CONDITIONS: Will not be demonstrated.

8. Demonstrate appropriate equipment and procedures for measurement of airborne radioiodine concentrations as low as 10-7uCi/cc in the presence of noble gases.

LIMITING CONDITIONS: Will not be demonstrated.

9. Demonstrate appropriate equipment and procedures for collection, transport and analysis of samples of soil, vegetation, snow, water and milk.

LIMITING CONDITIONS: Will not be demonstrated.

10. Demonstrate ability to project dosage to the public via plume exposure, based on plant and field data, and to determine appropriate protective measures, based on PAG's, available shelter, evacuation time estimates, and all other appropriate factors.

LIMITING CONDITIONS: Will not be demonstrated.

11. Demonstrate ability to project dosage to the public via ingestion pathway exposure, based on field data, and to determine appropriate protective measures, based on PAG's and other relevant factors.

LIMITING CONDITIONS: Will not be demonstrated.

12. Demonstrate ability to implement protective actions for ingestion pathway hazards.

LIMITING CONDITIONS: Will not be demonstrated.

13. Demonstrate ability to alert the public within the 10 mile EPZ, and disseminate an initial instructional message, within 15 minutes.

LIMITING CONDITIONS: Will not actually sound sirens, will prepare message and contact Lake County for EBS message preparation.

14. Demonstrate ability to formulate and distribute appropriate instructions to the public, in a timely fashion.

LIMITING CONDITIONS: Will demonstrate within the County EOC and at the JPIC, the ability to coordinate EBS messages from the counties for simulated EBS station broadcast.

15. Demonstrate the organizational ability and resources necessary to manage an orderly evacuation of all or part of the plume EPZ.

LIMITING CONDITIONS: Will procedurally demonstrate in the County EOC the ability and resources to manage an orderly evacuation of that portion of Ashtabula County in the EPZ.

16. Demonstrate the organizational ability and resources necessary to deal with impediments to evacuation, as inclement weather or traffic obstructions.

LIMITING CONDITIONS: Procedurally demonstrate within the EOC only. Will not actually dispatch vehicles to remove impediments.

17. Demonstrate the organizational ability and resources necessary to control access to the evacuated area.

LIMITING CONDITIONS: One access control point will be staffed with the necessary resources to control access, to include dosimeter equipment. The remaining access control points will be procedurally demonstrated through the use of maps in Ashtabula County EOC.

18. Demonstrate the organizational ability and resources necessary to effect an orderly evacuation of mobility-impaired individuals within the plume EPZ.

LIMITING CONDITIONS: Will demonstrate in the EOC the list of mobility impaired individuals within the EPZ showing the evaluator the plan/SOP's that are used to keep the list updated and current and the SOP's as to how transportation is provided.

19. Demonstrate the organizational ability and resources necessary to effect an orderly evacuation of schools within the plume EPZ.

LIMITING CONDITIONS: Geneva School District Transportation Supervisor will dispatch one bus to Spencer Elementary School (risk school). There will be no actual movement of children, or will the bus leave Spencer Elementary to go to a receiving school. Information will be provided to the evaluator at this point from the bus driver and Spencer Elementary Principal per their procedures.

20. Demonstrate ability to continuously monitor and control emergency worker exposure.

LIMITING CONDITIONS: None

21. Demonstrate the ability to make the decision, based on predetermined criteria, whether to issue KI to emergency workers and/or the general populations.

LIMITING CONDITIONS: Will not be demonstrated.

22. Demonstrate the ability to supply and administer KI, once the decision has been made to do so.

LIMITING CONDITIONS: Will not be demonstrated.

23. Demonstrate ability to effect an orderly evacuation of on-site personnel.

LIMITING CONDITIONS: Will not be demonstrated.

24. Demonstrate ability to brief the media in a clear, accurate and timely manner.

LIMITING CONDITIONS: Will demonstrate ability to brief the media in a clear, accurate, and timely manner from the JPIC only, and will demonstrate 24 hour capability with a roster. The Public Information Officer (PIO) in the JPIC receives continuous flow of information from the PIO Liaison in the EOC via dedicated (2 way) phone and facsimile machine.

25. Demonstrate ability to provide advance coordination of information released.

LIMITING CONDITIONS: None

26. Demonstrate ability to establish and operate rumor control in a coordinated fashion.

LIMITING CONDITIONS: None

27. Demonstrate adequacy of procedures for registration and radiological monitoring of evacuees.

LIMITING CONDITIONS: Care center to play out of sequence (after school children are dismissed), 7:00 p.m. at Rowe Junior High School, Conneaut, Ohio.

28. Demonstrate adequacy of facilities for mass care of evacuees.

LIMITING CONDITIONS: The 24 hour staffing of the care center will be by roster (for alternates) as most personnel are volunteers and have full time jobs requiring their presence, except during an actual emergency.

29. Demonstrate adequate equipment and procedures for decontamination of emergency workers, equipment and vehicles.

LIMITING CONDITIONS: Will demonstrate out of sequence (10:00 a.m.) at Saybrook Fire Station. Saybrook Elementary School, which is the facility where operations are conducted, is not available for demonstration purposes.

30. Demonstrate adequacy of ambulance, facilities and procedures for handling contaminated individuals.

LIMITING CONDITIONS: Will not demonstrate.

31. Demonstrate adequacy of hospital facilities and procedures for handling contaminated individuals.

LIMITING CONDITIONS: At 9:00 a.m. a tour of the Ashtabula County Medical Center Facility with regard to treatment of radiologically contaminated injured individuals will be conducted by the Hospital Vice-President, the Emergency Department Supervisor and, if available, the Hospital Radiologist and the Main Emergency Room Physician. The facility and equipment will be shown and procedures explained. The hospital vice-president will explain the critique of the Ohio Department of Health (ODH) and what the hospital has done to implement the ODH recommendations.

32. Demonstrate ability to identify need for, request, and obtain Federal assistance.

LIMITING CONDITIONS: Will not be demonstrated.

33. Demonstrate ability to relocate to and operate the alternate EOF/EOC.

LIMITING CONDITIONS: Will not be demonstrated.

34. Demonstrate ability to estimate total population exposure

LIMITING CONDITIONS: Will not be demonstrated.

35. Demonstrate ability to determine and implement appropriate measures for controlled recovery and re-entry.

LIMITING CONDITIONS: Will not be demonstrated.

GEAUGA COUNTY  
OBJECTIVES  
FOR THE  
APRIL 15, 1986, EXERCISE

1. Demonstrate ability to mobilize staff and activate facilities promptly.

LIMITING CONDITIONS: 1). EOC and JPIC staff will be mobilized per procedure at specified emergency classifications. 2). An access control point will be shown at SR 166 and 86. 3). The Hambden Fire Department (Emergency Worker Decontamination Center) in conjunction with Geauga Community Hospital will be shown out of sequence between the hours of 6:00 p.m. to 10:00 p.m. They will be showing emergency worker monitoring and decontamination. There will be an injured person who will be transported to Geauga Community Hospital to show their capabilities. 4). West Geauga High School will be played to show mass care by the American Red Cross, security by Chester Police Department, and radiological monitoring and decontamination by Chester Fire Department. Only the principal and/or his representative will be present from the school. This will be shown out of sequence between the hours of 6:00 p.m. and 10:00 p.m.

2. Demonstrate ability to fully staff facilities and maintain staffing around the clock.

LIMITING CONDITIONS: Will demonstrate double staffing or a staff roster where appropriate. Staffing at the Emergency Operations Center will be shown by double staffing and by roster to address 24 hour a day staffing. Staffing at the Joint Public Information Center will be shown by double staffing. Staffing at other various playing agencies will be shown by double staffing and/or by roster.

3. Demonstrate ability to make decisions and to coordinate emergency activities.

LIMITING CONDITIONS: None

4. Demonstrate adequacy of facilities and displays to support emergency operations.

LIMITING CONDITIONS: Deficiencies from the last exercise have been addressed. Maps and displays which were not in the Emergency Operations Center will be shown at this time.

5. Demonstrate the ability to communicate with all appropriate locations, organizations, and field personnel.

LIMITING CONDITIONS: None

6. Demonstrate ability to mobilize and deploy field monitoring teams in a timely fashion.

LIMITING CONDITIONS: Will not be demonstrated.

7. Demonstrate appropriate equipment and procedures for determining ambient radiation levels.

LIMITING CONDITIONS: Will not be demonstrated.

8. Demonstrate appropriate equipment and procedures for measurement of airborne radioiodine concentrations as low as 10-7uCi/cc in the presence of noble gases.

LIMITING CONDITIONS: Will not be demonstrated.

9. Demonstrate appropriate equipment and procedures for collection, transport and analysis of soil, vegetation, snow, water, and milk.

LIMITING CONDITIONS: Will not be demonstrated.

10. Demonstrate ability to project dosage to the public via plume exposure, based on plant and field data, and to determine appropriate protective measures, based on PAGs, available shelter, evacuation time estimates, and all other appropriate factors.

LIMITING CONDITIONS: Will not be demonstrated.

11. Demonstrate ability to project dosage to the public via ingestion pathway exposure, based on field data, and to determine appropriate protective measures, based on PAGs and other relevant factors.

LIMITING CONDITIONS: Will not be demonstrated.

12. Demonstrate ability to implement protective actions for ingestion pathway hazards.

LIMITING CONDITIONS: Will not be demonstrated.

13. Demonstrate ability to alert the public within the 10 mile EPZ, and disseminate an initial instructional message, within 15 minutes.

LIMITING CONDITIONS: A silent test of the Siren System will be conducted by Lake County Emergency Management Agency upon the agreement of all County Commissioners. The Lake County Emergency Management Agency will also issue the Emergency Broadcast System Statement to the CPCS-1 station at the agreement of all County Commissioners. Hard-copy information will be sent to the Public Information Officer at the Joint Public Information Center for dissemination to the media.

14. Demonstrate ability to formulate and distribute appropriate instructions to the public, in a timely fashion.

LIMITING CONDITIONS: A silent test of the Siren System will be conducted by Lake County Emergency Management Agency upon the agreement of all County Commissioners. The Lake County Emergency Management Agency will also issue the Emergency Broadcast System Statement to the CPCS-1 station at the agreement of all County Commissioners. Hard-copy information will be sent to the Public Information Officer at the Joint Public Information Center for dissemination to the media.

15. Demonstrate the organizational ability and resources necessary to manage an orderly evacuation of all or part of the plume EPZ.

LIMITING CONDITIONS: The EOC Staff will demonstrate this objective procedurally in the EOC through use of Standard Operating Procedures (SOPs) and EOC displays.

16. Demonstrate the organizational ability and resources necessary to deal with impediments to evacuation, as inclement weather or traffic obstructions.

LIMITING CONDITIONS: This will be done through the use of resource manuals of equipment available and through the Standard Operating Procedures (SOPs).

17. Demonstrate the organizational ability and resources necessary to control access to an evacuated area.

LIMITING CONDITIONS: This will be done through the use of resource manuals, Standard Operating Procedures (SOPs) and displays will be demonstrated in the EOC, in addition to the demonstration of one access control point in Thompson Township.

18. Demonstrate the organizational ability and resources necessary to effect an orderly evacuation of mobility-impaired individuals within the plume EPZ.

LIMITING CONDITIONS: This will be procedurally demonstrated in the Emergency Operations Center. A list will be available that identifies those individuals in Thompson Township who have special needs.

19. Demonstrate the organizational ability and resources necessary to effect an orderly evacuation of schools within the plume EPZ.

LIMITING CONDITIONS: Geauga County only has one school within the 10 mile emergency planning zone (Thompson Township). The ability and resources necessary to effect an orderly evacuation of schools within the plume EPZ will be done procedurally in the Emergency Operations Center through the use of Standard Operating Procedures (SOPs), resource manuals, etc.

20. Demonstrate ability to continuously monitor and control emergency worker exposure.

LIMITING CONDITIONS: This will be accomplished through the procedures of the Radiological Officer. We will also show dosimetry usage at the access control point in Thompson Township.

21. Demonstrate ability to make the decision, based on predetermined criteria, whether to issue KI to emergency workers and/or the general population.

LIMITING CONDITIONS: Will not be demonstrated.

22. Demonstrate the ability to supply and administer KI, once the decision has been made to do so.

LIMITING CONDITIONS: Will not be demonstrated.

23. Demonstrate ability to effect an orderly evacuation of on-site personnel.

LIMITING CONDITIONS: Will not be demonstrated.

24. Demonstrate ability to brief the media in a clear, accurate and timely manner.

LIMITING CONDITIONS: This will be accomplished through the Public Information Officer at the Joint Public Information Center at Lakeland Community College. We will also show the relationship of the Emergency Operations Center to giving the information to the Joint Public Information Center over the hard copy tele-copier and dedicated phone line.

25. Demonstrate ability to provide advance coordination of information released.

LIMITING CONDITIONS: This will be done at the Emergency Operations Center through the three-way dedicated phone line for all three sets of County Commissioners. The Public Information Officer at the Emergency Operations Center will also coordinate the release of this information prior to release to the media by the Public Information Officer at the Joint Public Information Center.

26. Demonstrate ability to establish and operate rumor control in a coordinated fashion.

LIMITING CONDITIONS: This will be done at the Emergency Operations Center.

27. Demonstrate adequacy of procedures for registration and radiological monitoring of evacuees.

LIMITING CONDITIONS: We will be playing West Geauga High between the hours of 6:00 p.m. and 10:00 p.m. The American Red Cross will be doing registration. Chester Fire Department will be doing radiological monitoring and decontamination.

28. Demonstrate adequacy of facilities for mass care of evacuees.

LIMITING CONDITIONS: This will be demonstrated at West Geauga High School. The hours of play will be between the hours of 6:00 p.m. to 10:00 p.m. The American Red Cross will procedurally show their duties at this location. The Geauga Amateur Radio Association will show communications back to the Emergency Operations Center, Chester Police will supply security, and Chester Fire Department will shown radiological monitoring and decontamination through instrumentation and procedures.

29. Demonstrate adequate equipment and procedures for decontamination of emergency workers, equipment and vehicles.

LIMITING CONDITIONS: This will be demonstrated at the Hambden Volunteer Fire Department (Emergency Worker radiological monitoring and decontamination Center). They will show this objective through instrumentation, kits, and procedures. They will have an injured contaminated person that will necessitate the transportation to Geauga Community Hospital. The hours of play will be between 6:00 p.m. and 10:00 p.m.

30. Demonstrate adequacy of ambulance facilities and procedures for handling contaminated individuals.

LIMITING CONDITIONS: This will be demonstrated at the Hambden Volunteer Fire Department (Emergency Worker radiological monitoring and decontamination Center). They will show this objective through instrumentation, kits, and procedures. They will have an injured contaminated person that will necessitate the transportation to Geauga Community Hospital. The hours of play will be between 6:00 p.m. and 10:00 p.m.

31. Demonstrate adequacy of hospital facilities and procedure for handling contaminated individuals.

LIMITING CONDITIONS: Because of the actions that are outlined in Objectives 29 and 30 Geauga Community Hospital will receive an injured contaminated person. They will show their decontamination equipment room with the use of this person. Procedures will also be shown. The hours of play will depend upon the actions of Hambden Fire Department. It is anticipated that the hours of play will be between 6:00 p.m. and 10:00 p.m.

32. Demonstrate ability to identify need for, request, and obtain Federal assistance.

LIMITING CONDITIONS: Will not be demonstrated.

33. Demonstrate ability to relocate to and operate the alternate EOF/EOC.

LIMITING CONDITIONS: Will not be demonstrated.

34. Demonstrate ability to estimate total population exposure.

LIMITING CONDITIONS: Will not be demonstrated.

35. Demonstrate ability to determine and implement appropriate measures for controlled recovery and re-entry.

LIMITING CONDITIONS: Will not be demonstrated.

PERRY NUCLEAR POWER PLANT  
1986 EMERGENCY PREPAREDNESS EXERCISE

FEMA  
OBJECTIVE

FEMA OBJECTIVES CROSS-REFERENCE

1. Demonstrate ability to mobilize staff and activate facilities promptly.
2. Demonstrate ability to fully staff facilities and maintain staffing around the clock.
3. Demonstrate ability to make decisions and to coordinate emergency activities.
4. Demonstrate adequacy of facilities and displays and to support emergency operations.
5. Demonstrate ability to communicate with all appropriate locations, organizations, and field personnel.
6. Demonstrate ability to mobilize and deploy field monitoring teams in a timely fashion.
7. Demonstrate appropriate equipment and procedures for determining ambient radiation levels.
8. Demonstrate appropriate equipment and procedures for measurement of airborne radioiodine concentrations as low as  $10^{-7}$  uCi/CC in the presence of noble gases.
9. Demonstrate appropriate equipment and procedures for collection, transport and analysis of soil, vegetation, snow, water, and milk.
10. Demonstrate ability to project dosage to the public via plume exposure, based on plant and field data, and to determine appropriate protective measures, based on PAGs, available shelter, evacuation time estimates, and all other appropriate factors.
11. Demonstrate ability to project dosage to the public via ingestion pathway exposure, based on field data, and to determine appropriate protective measures, based on PAGs and other relevant factors.
12. Demonstrate ability to implement protective actions for ingestion pathway hazards.
13. Demonstrate ability to alert the public within the 10 mile EPZ, and disseminate an initial instructional message, within 15 minutes.
14. Demonstrate ability to formulate and distribute appropriate instructions to the public, in a timely fashion.

FEMA  
OBJECTIVE

FEMA OBJECTIVES CROSS-REFERENCE

15. Demonstrate the organizational ability and resources necessary to manage an orderly evacuation of all or part of the plume EPZ.
16. Demonstrate the organizational ability and resources necessary to deal with impediments to evacuation, such as inclement weather or traffic obstructions.
17. Demonstrate the organizational ability and resources necessary to control access to an evacuated area.
18. Demonstrate the organizational ability and resources necessary to effect an orderly evacuation of mobility-impaired individuals within the plume EPZ.
19. Demonstrate the organizational ability and resources necessary to effect an orderly evacuation of schools within the plume EPZ.
20. Demonstrate ability to continuously monitor and control emergency worker exposure.
21. Demonstrate ability to make the decision, based on predetermined criteria, whether to issue KI to emergency workers and/or the general population.
22. Demonstrate the ability to supply and administer KI, once the decision has been made to do so.
23. Demonstrate ability to effect an orderly evacuation of on-site personnel.
24. Demonstrate ability to brief the media in a clear, accurate, timely manner.
25. Demonstrate ability to provide advance coordination of information released.
26. Demonstrate ability to establish and operate rumor control in a coordinated fashion.
27. Demonstrate adequacy of procedures for registration and radiological monitoring of evacuees.
28. Demonstrate adequacy of facilities for mass care of evacuees.
29. Demonstrate adequate equipment and procedures for decontamination of emergency workers, equipment, and vehicles.
30. Demonstrate adequacy of ambulance facilities and procedures for handling contaminated individuals.

FEMA  
OBJECTIVE

FEMA OBJECTIVES CROSS-REFERENCE

31. Demonstrate adequacy of hospital facilities and procedures for handling contaminated individuals.
32. Demonstrate ability to identify need for, request, and obtain Federal assistance.
33. Demonstrate ability to relocate to and operate the alternate EOF/EOC.
34. Demonstrate ability to estimate total population exposure.
35. Demonstrate ability to determine and implement appropriate measures for controlled recovery and re-entry.

7.0 EXERCISE SCENARIO

Contents Of This Section

Section 7.1 Initial Conditions

Section 7.2 On-Site Sequence of Events

Section 7.3 Off-Site Sequence of Events

Section 7.4 Narrative Summary of the Exercise Scenario

PERRY NUCLEAR POWER PLANT  
1986 EMERGENCY PREPAREDNESS EVALUATED EXERCISE  
INITIAL CONDITIONS  
(DAY BEFORE EXERCISE)

1. Unit is operating at 100% power. The unit has shattered the world continuous operation record; it has operated continuously since the last refueling outage 530 days ago.
2. Preparations are underway for a refueling outage, scheduled to begin in four weeks.
3. High Pressure Core Spray (HPCS) system is out of service due to a pump motor failure that occurred during today's surveillance instruction test. Maintenance section personnel are working to substitute the Unit 2 HPCS motor. Replacement is expected to be completed within three days.
4. Heater Bay/Turbine Building Exhaust Fan A (M41-C001A) is out of service due to a bowed shaft. The fan is disassembled. The system will be returned to service in one week.
5. The Motor Feed Pump N27-C004 is out of service for seized bearing repair. The pump will be placed in service as replacement parts arrive and are installed. Estimated time to restore operability is 48 hours.
6. Auxiliary Building Exhaust System Fan "A" (M38) is out of service for impeller replacement. It will be back in service within five days.
7. All other plant systems are operable.
8. Unit 2 remains under construction; reactor pressure vessel hydro is in progress.
9. Weather Forecast:

Winds will be calm, 2-5 miles per hour, out of the northwest. Morning temperatures will be in the mid-thirties, with highs in the mid-to-upper forties. Skies will be partly cloudy with less than a 10% chance of precipitation.

PERRY NUCLEAR POWER PLANT  
1986 EMERGENCY PREPAREDNESS EVALUATED EXERCISE  
INITIAL CONDITIONS

1. Unit is operating at 100% power. The unit has shattered the world continuous operation record; it has operated continuously since the last refueling outage 531 days ago.
2. Preparations are underway for a refueling outage, scheduled to begin in four weeks.
3. High Pressure Core Spray (HPCS) system is out of service due to a pump motor failure that occurred during yesterday's surveillance instruction test. Maintenance section personnel are working to substitute the Unit 2 HPCS motor. Replacement is expected to be completed within two days.
4. The CEI System Operations Center (SOC) reports high winds in western Ohio that are moving eastward. The CEI power system is stable.
5. Heater Bay/Turbine Building Exhaust Fan A (M41-C001A) is out of service due to a bowed shaft. The fan is disassembled. The system will be returned to service in one week.
6. The Motor Feed Pump N27-C004 is out of service for seized bearing repair. The pump will be placed in service as replacement parts arrive and are installed. Estimated time to restore operability is 36 hours.
7. Auxiliary Building Exhaust System Fan "A" (M38) is out of service for impeller replacement. It will be back in service within four days.
8. All other plant systems are operable.
9. Unit 2 remains under construction; no significant testing is scheduled for today.
10. Condensate Demineralizer Spent Resin transfer to Radwaste is in progress.
11. Current weather conditions are as follows:

Wind speed:	2.5 miles per hour
Wind direction:	285°
Temperature:	37°F
Stability Class:	D

(Continued)

4/15/86

12. Weather Forecast:

Winds will be calm, 2-5 miles per hour, out of the northwest, increasing to 10-15 miles per hour by late afternoon. Afternoon temperatures will be in the mid-forties, falling into the upper twenties by late evening. Skies will remain partly cloudy with less than a 10% chance of precipitation.

7.3 Off-Site Sequence of Events

PERRY NUCLEAR POWER PLANT  
 1986 EMERGENCY PREPAREDNESS EXERCISE  
 NARRATIVE - OFFSITE SCHEDULE OF EVENTS

APPROXIMATE TIME	PNPP KEY EVENTS AND ACTIONS	OHIO RESPONSE	COUNTY RESPONSE
0710	A Power Plant Operator (PPO) is injured and contaminated.		
0715	PNPP declares and "UNUSUAL EVENT" because an ambulance must be called to transport the injured worker offsite. PNPP notifies Ohio Disaster Services Agency (DSA), Ashtabula, Lake and Geauga County DSA's by way of the 5-way dedicated phone link.	Ohio DSA receives notification of declaration, verifies notification and contacts Lake County Resident Radiological Analyst.	Lake County Communications Center Geauga County Sheriff's Dispatch Office and Ashtabula County Sheriff's Dispatch Office receive notification of the declaration, verify notification and contact selected officials (to include county DSA/EMA directors) per procedures.  Parry Township Fire Dept. is called to transport victim.
0720		Ohio DSA informs:  <ol style="list-style-type: none"> <li>1. Adjutant General</li> <li>2. Governor's Office</li> <li>3. Public Information Office</li> <li>4. Communications Officer</li> <li>5. Ohio Highway Patrol</li> <li>6. Other key DSA staff, as appropriate.</li> </ol> Ohio DSA Radiological Emergency Response Planning (RERP) Section determines availability of vehicles and field monitoring equipment. (Simulated)	County DSA directors ensure notification of appropriate individuals per procedures.

APPROXIMATE TIME	PNPP KEY EVENTS AND ACTIONS	OHIO RESPONSE	COUNTY RESPONSE
0730			Perry Township Fire Dept. arrives at PNPP to transport victim.
0800			Ambulance from Perry Township Fire Dept. departs PNPP to take victim to Lake County Hospital, East.
0815	<p>PNPP declares an "ALERT" because a resin spill in the turbine power complex area has caused radiation levels to greatly increase. The Technical Support Center (TSC) and the Operations Support Center (OSC) are activated. PNPP notifies Ohio DSA, Lake, Ashtabula and Geauga counties over the 5-way dedicated phone link.</p>	<p>Ohio DSA receives and verifies the declaration.</p> <p>Ohio DSA partially activates State Emergency Operations Center (EOC) in Columbus (to assist in call-down process, preparation for departure of key staff to near-site positions and to support formation of State Assessment Team).</p> <p>Ohio DSA notifies:</p> <ol style="list-style-type: none"> <li>1. Office of the Governor*</li> <li>2. Ohio Department of Health (ODH)</li> <li>3. Ohio Environmental Protection Agency (EPA)</li> <li>4. Ohio National Guard (ONG)</li> <li>5. Aviation Section for transportation support* (Simulated)</li> <li>6. ONG Military Support Section for EOC security support (Simulated)</li> <li>7. Ontario, Canada, Ministry of the Solicitor General*</li> <li>8. Pennsylvania Emergency Management Agency (PEMA)</li> </ol> <p>*Calls performed by Ohio DSA Deputy Director; all others performed by RERP section.</p>	<p>Lake, Ashtabula and Geauga counties receive notification of the declaration, inform their respective county DSA/EMA directors and selected officials per procedures.</p> <p>Involved county agencies are notified via radio, telephone and/or alert monitor radio receivers.</p> <p>Two field monitoring teams, comprised of county health department personnel, are assembled and held in standby at the county health dept. office in Painesville.</p> <p>Perry Township Fire Dept. ambulance arrives at Lake County Hospital, East.</p>

APPROXIMATE TIME	PNPP KEY EVENTS AND ACTIONS	OHIO RESPONSE	COUNTY RESPONSE
0830		<p>ODH and Ohio EPA dispatch personnel to the State EOC for State Assessment Team (chaired by ODH).</p> <p>Until arrival of other State Assessment Team members, Ohio DSA monitors 5-way dedicated phone link continuously.</p>	
0845	<p>A fire is discovered in the area of the turbine building.</p>		
0900		<p>Ohio DSA dispatches by ONG helicopter: (Simulated)</p> <ol style="list-style-type: none"> <li>1. Nuclear Operations Officer to EOF;</li> <li>2. Public Information Officer (PIO) and one assistant to Joint Public Information Center (JPIC); and,</li> <li>3. Monitoring team leader to communications van site (also performs aerial plume centerline verification enroute, as appropriate) (Pre-positioned)</li> </ol> <p>Ohio DSA dispatches communications van to pre-selected site at Ledgemont School, Burrows Road.</p> <p>Ohio DSA dispatches three radiological monitoring teams in radio-equipped vehicles to staging area at the Highway Patrol Post on State Route 44 north of Chardon. (Pre-positioned)</p>	<p>Ashtabula County Medical Center will be toured to show equipment and explain procedures. (Out of sequence)</p> <p>Perry Township Fire Dept. arrives at PNPP.</p>

APPROXIMATE TIME	PNPP KEY EVENTS AND ACTIONS	OHIO_RESPONSE	COUNTY_RESPONSE
0900 (cont'd.)		<p>Ohio DSA Deputy Director ensures EOC security is in place. (Simulated)</p> <p>Ohio DSA Controller verifies that EOC is equipped to support operations if emergency escalates. (Simulated)</p> <p>Ohio DSA dispatches, in vehicles, personnel from Operations and Training section to counties and second assistant to JPIC. (Simulated)</p>	
0910		<p>Teams from ODH and Ohio EPA arrive and establish functioning State Assessment Team with Ohio DSA in Assessment Room (02A) of the State EOC. 5-way dedicated phone link with counties and utility is continuously monitored.</p>	
0915	<p>Fire in area of the turbine building is out.</p>		
0945			<p>Perry Township Fire Dept. departs PNPP.</p>
1000			<p>Ashtabula County will demonstrate emergency worker decontamination at Saybrook Fire Station.</p>

APPROXIMATE TIME	PNPP KEY EVENTS AND ACTIONS	OHIO RESPONSE	COUNTY RESPONSE
1055	<p>PNPP declares a "SITE-AREA EMERGENCY" because a steam line break outside containment without isolation has occurred. The Emergency Operations Facility (EOF) and the JPIC are activated.</p> <p>State and involved counties are notified over the 5-way phone link.</p> <p>PNPP notifies the U. S. Coast Guard for a precautionary evacuation of the waterway within the 10-mile EPZ.</p>	<p>Ohio DSA receives notification of the declaration over 5-way dedicated phone link in assessment room. Notification begins for the following agencies with instructions to respond to the State EOC for the duration of the emergency (Simulated)</p> <ol style="list-style-type: none"> <li>1. Ohio Department of Natural Resources (ODNR)</li> <li>2. Ohio State Highway Patrol</li> <li>3. American Red Cross (Columbus Chapter)</li> <li>4. Ohio Department of Agriculture</li> <li>5. Ohio Department of Transportation (ODOT)</li> <li>6. Ohio Department of Human Services</li> <li>7. Public Utilities Commission of Ohio (PUCO)</li> </ol> <p>Ohio DSA Deputy Director contacts:</p> <ol style="list-style-type: none"> <li>1. Office of the Governor with a request to declare a "State of Emergency," activate the State EOC and ONG and augment State agency resources, as necessary. Governor dispatches representatives to the EOC. (Simulated)</li> <li>2. Consolidated Railways (CONRAIL) and Norfolk &amp; Western Railways to restrict rail traffic in the 10-mile EPZ. (Simulated)</li> <li>3. Federal Aviation Administration (FAA) to restrict air traffic in the 10-mile EPZ. (Simulated)</li> </ol> <p>Communication links established between State EOC, Utility EOF, (State's liaison) and JPIC (State's PIO) with back-up provided by communications van.</p>	<p>Lake, Ashtabula and Geauga counties receive notification of the declaration over the 5-way link.</p> <p>Involved county commissioners declare a "State of Emergency" and request State assistance from the Governor (through Ohio DSA).</p> <p>All county EOC's are fully activated and responding agencies notified to provide representatives for EOC staffing, per procedures.</p> <p>Necessary care centers and decontamination stations are notified.</p> <p>Schools within the EPZ and support schools notified.</p> <p>(NOTE: Buses will be sent to chosen schools, but children will not board; expected to arrive within 45 minutes.)</p> <p>Traffic control points activated.</p> <p>(NOTE: Only three traffic control points will be activated to assist with simulated evacuation of PNPP personnel.)</p> <p>Referral points contacted and told to activate (one referral point will be activated within 45 minutes.)</p>

APPROXIMATE TIME	PNPP KEY EVENTS AND ACTIONS	OHIO RESPONSE	COUNTY RESPONSE
1055 (cont'd.)		<p>On behalf of the Governor, pre-designated Ohio DSA staff member requests federal assistance from the Federal Emergency Management Agency (FEMA) and U. S. Department of Energy (DOE) to include:</p> <ol style="list-style-type: none"> <li>1. Field monitoring for noble gas and iodine.</li> <li>2. Field sampling, including analysis to determine particulate depositions.</li> <li>3. Logistic support for federal response and disaster/mass care assistance, etc. (FEMA)</li> </ol> <p>Adjutant General's Dept. PIO staff prepares State press briefing area in Room 153 in the Armory. Lines of communications will be established with spokesperson (PIO) at JPIC and information shall be coordinated prior to release to the news media, per procedure, for duration of emergency.</p> <p>Rumor control line (toll-free) established and publicized through JPIC and EOC press center.</p>	
1100		<p>ODH and Ohio Dept. of Agriculture recommends that all lactating animals within two miles of the plant be sheltered and placed on stored feed.</p> <p>State PIO begins coordinating releases of information to news media at JPIC with representatives (PIO's) of participating agencies, County PIO and State EOC PIO (upon arrival at JPIC).</p>	

APPROXIMATE  
TIME

FNPP KEY EVENTS AND ACTIONS

OHIO RESPONSE

COUNTY RESPONSE

1115

Referral point on 1-90 will be activated from 11:15 until 12:15 only. (Out of sequence)

1255

FNPP declares a "GENERAL EMERGENCY" because of plant conditions. State and involved counties are notified over the 5-way dedicated phone link.

State Assessment Team receives notification of declaration and takes Utility's recommendations under advisement. Within 15 minutes, team formulates State's recommended protective actions, obtains Governor's (or designated representative in EOC) approval and informs county assessment team of Governor's recommendations.

County assessment group informed of plant's change in status and Utility's recommendations for protective actions. Group informs appropriate officials/agencies, per procedures.

Access control functions are implemented. (Each county will demonstrate one point.)

Appropriate officials/agencies/media informed of change in status.

1310

Utility informed of commissioner's decisions on protective actions for the public.

State informed of commissioner's decisions on protective actions; informs EOF liaison and EOC PIO.

Counties receive State recommendations for protective actions and informs State and Utility of commissioner's decisions regarding appropriate measures.

ODH and Agriculture recommends that all lactating animals within 10 miles of the plant be sheltered and placed on stored feed and issues advisories on locally grown produce.

Appropriate EBS messages initiated to inform the public of actions to take. (Simulated)

Necessary care centers and decontamination stations are activated. (Simulated)

(NOTE: Chosen care centers and decontamination stations in all three counties will be demonstrated out of sequence to avoid disruption of school activities.)

APPROXIMATE TIME	PNPP KEY EVENTS AND ACTIONS	OHIO RESPONSE	COUNTY RESPONSE
1330	PNPP informs State and involved counties over 5-way dedicated phone link of a radioactive material release. Plant upgrades protective action recommendations.	State Assessment Team receives notification of major release; takes Utility's recommendation under advisement. Within 15 minutes team formulates State's upgraded protective actions; obtains Governor's (or designated representative in EOC) approval and informs county assessment team of Governor's recommendations.  State monitoring teams dispatched to pre-selected sites within plume exposure pathway begin providing field radiological data to State Assessment Team through communications van.	Radiological Officers in the involved counties are informed of the radiation release and the Utility's recommendations for protective actions.
1345	Utility informed of commissioners' decisions on actions over the 5-way dedicated phone link.	State informed of commissioners' decisions on protective actions over the 5-way dedicated phone link.  Assessment teams provide monitoring team data to both Utility and involved counties.	Counties notified and appropriate EBS message initiated to inform the public of actions. (Simulated)
1430	Radiation release stops; PNPP informs State and involved counties over the 5-way dedicated phone link.	Assessment team notified of plant's status and release termination over the 5-way dedicated link. Informs appropriate officials/agencies.	Radiological Officers in the involved counties are informed and appropriate officials/agencies are informed.
1500			Care center activated at North High School. (Out of sequence)

APPROXIMATE TIME	PNPP KEY EVENTS AND ACTIONS	OHIO RESPONSE	COUNTY RESPONSE
1530	PNPP informs State and involved counties that offsite levels of radiation have returned to background; the emergency is downgraded (as appropriate).	Assessment team receives information and informs appropriate agencies and officials; recommends that protective actions remain in place until further monitoring is performed and sample results are returned.	Involved counties are notified of the downgrade and inform appropriate agencies/officials.
1650	PNPP informed of termination of offsite portion of the exercise by the State over the 5-way dedicated phone link.	Offsite portion of the exercise terminated by Ohio EOF representative by announcement over the 5-way dedicated phone link.	Assessment group of involved counties receive information on termination of exercise and inform appropriate agencies/officials.
1700		EOC portion of exercise terminated.	EOC portion of exercise terminated
1900			Care center at West Geauga is activated. (Out of sequence) Emergency worker decontamination center is activated at Hambden Fire Station. (Out of sequence)
1930			Contamination emergency worker transported to Geauga Community Hospital.
1950			Contaminated emergency worker arrives at Geauga Community Hospital.
2000			Care center activated at Rowe Junior High School. (Out of sequence)

7.4 Narrative Summary of the Exercise Scenario

The RCIC isolation timer shuts the Outboard Isolation Valve at 1055. A Site Area Emergency is declared in accordance with EPI-A1, Section C.III.1, "Steam line break outside containment without isolation." The Emergency Operations Facility and Joint Public Information Center are activated.

Plant conditions remain stable and reactor cooldown continues.

At 1215, the RCIC steam line crack increases and vessel level begins to decrease.

A General Emergency may be declared at 1230 in accordance with EPI-A1, Section A.IV.3, "Small or large LOCA with failure of ECCS to perform, leading to core degradation or melt in minutes to hours. Loss of containment integrity may be imminent"; or per Section A.IV.1, "Loss of two fission product barriers with a potential loss of third barrier." A precautionary Protective Action Recommendation (shelter to two miles, 360 degrees, and shelter five miles downwind) should be made. The reactor continues to depressurize through the RCIC steam line crack.

At 1230, Auxiliary Building Exhaust Fan B fails due to seized bearings. Reactor level reaches Top of Active Fuel (TAF) at 1255.

At 1300, the reactor boils down to below TAF and fuel damage occurs. Containment area radiation monitors alarm. The Turbine Building Vent low range monitor indicates substantially increased levels of radiation. The release rate peaks at 0.79Ci/Sec. This release results in a six-hour projected thyroid dose of 25.2 Rem (unprotected) at 3.0 miles; the corresponding whole body dose is 2.5 Rem, therefore the thyroid dose will drive the Protective Actions. According to PNPP procedure, this accident should result in a minimum recommendation of evacuation out to 3 miles. The significant release lasts for approximately 1.5 hours, ceasing at 1430. Meteorological conditions during the release are as follows:

Wind Speed: 2.5 mph  
Direction: from 310°  
Temperature: 45°F  
Pasquill Stability Class: D

At 1400, RHR A is cooling the core in shutdown cooling mode,

At 1445, inboard the RCIC valve closes.

Winds of approximately 12 mph begin to disperse the plume at 1500, and by 1530, off-site radiation levels return to background.

The General Emergency is downgraded, and re-entry and recovery actions are initiated at 1530.

At 1700, the exercise is terminated.

DW247F/K/6/mr

## SUMMARY OF THE EXERCISE SCENARIO

The Perry Power Plant has been operating continuously for the last 17 months, since the last refueling outage. The plant is currently operating at 100 percent power and is near the end of the core life. Preparations are underway for a refueling outage, scheduled to begin in four weeks. Some equipment problems are ongoing, but all have been addressed through surveillance activities.

Weather conditions remain constant, with the forecast indicating a high in the mid-forties with calm winds out of the northwest.

At 0710, a Chemistry Technician working at the Turbine Sampling Panel receives an electrical shock and is knocked unconscious. He is injured and contaminated. Health Physics support and a First Aid Team are dispatched to the area.

At 0715, the Shift Supervisor requests that an ambulance be dispatched to transport the contaminated injured person off-site. An Unusual Event is declared in accordance with EPI-A1, Section N.I.1, "Transportation of contaminated injured individuals from the site to off-site hospital."

From 0730 to 0800, the ambulance arrives, the victim is placed in the vehicle and the ambulance leaves the site.

At 0802, a resin spill occurs in the area of the Turbine Power Complex and radiation levels in the area of the spill increase to 1000 times normal. At approximately 0815, an Alert is declared per EPI-A1, Section E.II.1, "High radiation levels or airborne contamination which indicates a severe degradation in the control of radioactive materials." The Technical Support Center and Operations Support Center are activated.

The TSC and OSC are operational by 0850. At this time, an oil fire is discovered in the area of the Turbine Building Chillers. The Control Room is notified, the fire brigade is dispatched and by 0915, the fire is out. Off-site firefighting support is provided by the Perry Township Fire Department.

A pipe rupture occurs in the circulating water system at 1015. The break occurs in the 12-foot diameter fiberglass, underground pipe section flooding the plant yard. The main condenser and auxiliary condenser vacuums decrease rapidly, resulting in a turbine trip and reactor scram. The main Steam Isolation Valves isolate on low condenser vacuum, and reactor pressure increases. Attempts to open Safety Relief Valves (SRV's) fail as a result of solidified SRV packing.

At 1030, one of the SRV's opens. As the reactor depressures, the SRV closes, resulting in increased reactor pressure. This SRV continues to cycle between 950 psi and 1300 psi. Water level remains constant.

At 1045, reactor coolant is released through a RCIC steam line crack at the weld just upstream of Outboard Isolation Valve E51-F064. Steam Tunnel ambient temperature and ventilation differential temperature monitors alarm, and the RCIC isolation timer starts.