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50-316 Donald C. Cook Nuclear Power Plant, Unit 2, Indiana M 05000316
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SMITH, W.G. Indiana Michigan Power Co. (formerly Indiana & Michigan Ele
RECIP. NAME RECIPIENT AFFILIATION
MARTIN, J.B. Region 3 (Post 820201)

SUBJECT: Informs that util submitting encl scope & objectives for
941004 emergency plan exercise to J McCormick-Barger. Subj
exercise util only exercise. Complete exercise scenario
package will be submitted 60 days in advance of exercise.

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10 CFR 50 App. E

Donald C. Cook Nuclear Plant Units 1 and 2
Docket Nos. 50-315 and 50-316
License Nos. DPR-58 and DPR-74
1994 EMERGENCY PLAN EXERCISE SCOPE AND OBJECTIVES

U.S. Nuclear Regulatory Commission, Region III
801 Warrenville Road
Lisle, Illinois 60532-4351

Attn: J. B. Martin

July 5, 1994

Dear Mr. Martin:

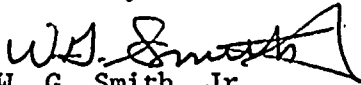
This letter is to inform you that we are submitting the scope and objectives for the October 4, 1994, Donald C. Cook Nuclear Plant Emergency Plan Exercise to Mr. James McCormick-Barger of your Radiological Programs Section. This action is in accordance with A. B. Davis' NRC-Region III March 16, 1987, letter and FEMA Guidance Memorandum EX-3, "Managing Pre-exercise Activities and Post-exercise Meetings."

The October 4, 1994 exercise will be an utility only exercise.

The exercise will be conducted using the Unit 2 simulator and the simulated Technical Support Center in the Cook Nuclear Plant Training Center. Controller information and simulation data are also being developed to provide back-up for the exercise in the event of simulator equipment problems.

Also, in accordance with FEMA Guidance Memorandum EX-3, we will submit the complete exercise scenario package with all controller information and simulation data, including plant data, radiation level data, and release rate data, 60 days in advance of the exercise.

Sincerely,


W. G. Smith, Jr.
Chief Operations Manager

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blb

Attachment

c: A. A. Blind - w/o att.
 G. Charnoff
 E. E. Fitzpatrick - w/o att.
 J. McCormick-Barger - Region III - w/attachment
 NFEM Section Chief - w/o att.
 NRC Resident Inspector - Bridgman
 J. R. Padgett
 W. T. Russell
 F/Lt. J. M. Tyler - Lansing, MI

COOK NUCLEAR PLANT

1994

EMERGENCY PLAN EVALUATED EXERCISE

SCOPE AND OBJECTIVES

PURPOSE

The purpose of this emergency preparedness exercise is to meet the conditions of 10CFR50, Appendix E,(IV)(F)(2) which requires a licensee to annually exercise its Emergency Plan.

SCOPE

This exercise will take place between the hours of 0800 and 1600 on October 4, 1994. It will include actions taken by the Cook Plant, the American Electric Power Service Corporation, and Indiana Michigan Power Company personnel. State of Michigan and the County of Berrien will participate at the initial notification stages and Plant personnel will be stationed in the State and County EOCs to maintain continuous communications with the EOF.

The Cook Plant Unit 2 simulator will be utilized to drive scenario events and all emergency response facilities will be activated. They include the Operations Staging Area (OSA), Simulated Technical Support Center (TSC), Emergency Operations Facility (EOF) and the Joint Public Information Center (JPIC).

Simulated events at the plant will begin with a Reactor Coolant System (RCS) leak of just sufficient magnitude to force a Technical Specification shutdown and subsequent **Unusual Event** declaration. As the Control Room operators are determining the size and source of the leak, a mild earthquake occurs. An **Alert** is declared as a result of the earthquake and as damage assessments continue, a strong aftershock is felt causing the RCS leak to increase significantly. A reactor trip results along with safety injection. A Refueling Water Storage Tank level indication malfunction, high turbine vibrations and a high pressure differential across the travelling screens is also noted. High containment pressure causes containment spray to actuate and a phase B isolation to occur. A **Site Area Emergency** is declared. A second aftershock occurs creating electrical malfunctions and the spill of a barrel of hazardous water treatment chemicals. A short release of radioactive material via the plant vent occurs because of a 20 gpm leak in an RHR pump. This leak is soon isolated, terminating the release. At about that same time a medical emergency occurs in the TSC. The exercise will terminate with the RHR leak isolated, electrical and chemical problems neutralized and the plant on its way to safe shutdown.



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EXERCISE OBJECTIVES

The exercise objectives dictate the scope of the scenario. The objectives for this exercise were developed based upon the Donald C. Cook Nuclear Plant (DCCNP) Emergency Plan Administrative Manual.

Situations will be presented in the scenario to prompt the desired player response for each objective. Where appropriate, specific objectives and criteria for adequate demonstration will be included in the exercise messages for Controller/Observer use.

A. OVERALL LICENSEE OBJECTIVES

1. Demonstrate the ability of the emergency response organization to implement DCCNP Emergency Plan Procedures, the Indiana Michigan Power Company Emergency Plan Response Manual and the AEPSC Emergency Response Manual.
2. Demonstrate the ability to establish emergency management command and control, and maintain continuity of this function for the duration of the postulated event.
3. Demonstrate the ability to establish communications and information flow between DCCNP emergency response facilities and participating offsite agencies.
4. Demonstrate the ability to designate subsequent shifts of the emergency response organization.

B. CONTROL ROOM OBJECTIVES

1. Demonstrate the ability to recognize symptoms and parameters indicative of degrading plant conditions and to classify degraded conditions as emergencies.
2. Demonstrate the ability to initiate notification of offsite authorities and plant personnel.
3. Demonstrate communications and information flow to and from the Technical Support Center.

4. Demonstrate the ability to transfer emergency authorities and responsibilities from the on-shift emergency organization to the DCCNP emergency response organization.
5. Demonstrate the duties of the Control Room Emergency Organization as described in procedure OHI-2080.

C. TECHNICAL SUPPORT CENTER OBJECTIVES

1. Demonstrate the ability to activate the facility within one hour of declaration of an emergency requiring facility activation.
2. Demonstrate the ability to provide analytical assistance and operational guidance to the Control Room.
3. Demonstrate the ability to coordinate onsite activities in response to the emergency.
4. Demonstrate the ability to establish and maintain hard copy communications with the EOF and verbal communications with the EOF, OSA, IAG, and JPIC.
5. Demonstrate the ability to provide analytical radiological assistance to the OSA and Control Room.
6. Demonstrate the ability to obtain data from the OTSC/PSSD System and Plant Process Computer.
7. Demonstrate the ability to request emergency response teams from the OSA.
8. Demonstrate the ability to evaluate the results of TSC/OSA habitability surveys and assess the need to evacuate these facilities.
9. Demonstrate the ability to recognize degrading plant conditions and classify plant conditions as an emergency.
10. Demonstrate the ability to direct the implementation of site assembly, accountability and evacuation.
11. Demonstrate the ability to evaluate site evacuation routes and determine an appropriate route based on indicated radiological and meteorological conditions.

12. Demonstrate the actions required to be taken in the TSC if the emergency involves a breach of the reactor coolant system.

D. OPERATIONS STAGING AREA OBJECTIVES

1. Demonstrate the ability to activate the facility within one hour of declaration of an emergency requiring facility activation.
2. Demonstrate the ability to assemble, brief, and dispatch, within an average time of 20 minutes or less after being requested, the following emergency response teams:
 - a. Damage Control
 - b. Chemistry Sampling
 - c. On-site Radiation Monitoring
 - d. Off-site Radiation Monitoring
3. Demonstrate the ability to designate a second shift for OSA operation.
4. Each emergency response team assembled and dispatched shall demonstrate the following actions as applicable to the team type and mission:
 - a. Assembly of tools/equipment;
 - b. Pre-operation checks of equipment and communications devices;
 - c. Performance of appropriate radiological precautions;
 - d. Performance or simulation of team mission
 - e. Post-mission debriefing and radiological controls;
5. Demonstrate the ability to provide emergency radiological support. As a minimum, the following activities should be demonstrated:
 - a. Establishment of emergency dosimetry and exposure tracking system;
 - b. Determination and establishment (if necessary) of emergency control points;
 - c. Performance of habitability surveys prescribed by procedure;
 - d. Analysis of radiological conditions to be encountered by emergency response teams;
 - e. Specification of radiological controls and precautions for emergency response teams;
6. Demonstrate the ability to perform offsite radiological monitoring. As a

minimum, two teams should be dispatched and direct radiation monitoring as well as airborne radioactivity analysis should be demonstrated.

7. Demonstrate the ability to implement damage control activities in accordance with applicable Emergency Plan Procedures.
8. Demonstrate the ability to perform onsite radiological monitoring in accordance with applicable Emergency Plan Procedures. This monitoring should include direct radiation surveys and analysis of airborne radioactivity samples.
9. Demonstrate the ability to obtain post accident samples from one of the following mediums and complete appropriate chemical and isotopic analysis within three hours of the sample request.
 - a. RCS Loop
 - b. Containment Sump

E. EMERGENCY OPERATIONS FACILITY OBJECTIVES

1. Demonstrate the ability to activate the facility within one hour of declaration of an emergency requiring facility activation.
2. Demonstrate the ability to establish overall command and control of the DCCNP emergency response within one hour of declaration of a site area emergency or higher classification, as applicable.
3. Demonstrate the ability to establish and maintain effective emergency communications with each of the following agencies and facilities:
 - a. State of Michigan
 - b. Berrien County
 - c. NRC
 - d. Technical Support Center
 - e. Joint Public Information Center
 - f. Initial Assessment Group
4. Demonstrate the ability to establish and maintain hard copy data transmission and reception with each of the following facilities:
 - a. Technical Support Center
 - b. Joint Public Information Center or Emergency News Center
 - c. State of Michigan EOC

5. Demonstrate the ability to direct Offsite Radiation Monitoring Teams in order to determine the geographical location and radiological magnitude of the postulated plume.
6. Demonstrate the ability to update the State of Michigan on the status of the emergency at 15 minute intervals.
7. Demonstrate the ability to respond to inquiries from the TSC, JPIC, IAG and State of Michigan in a timely manner.
8. Demonstrate the ability to project the magnitude of offsite dose using the Dose Assessment Program.
9. Demonstrate corporate augmentation of the EOF staff.
10. Demonstrate recovery planning associated with the emergency termination.
11. Demonstrate the ability to designate a second shift for EOF operations.

F. PUBLIC AFFAIRS OBJECTIVES

1. Demonstrate activation of the Joint Public Information Center.
2. Demonstrate the ability to conduct media briefings.
3. Demonstrate the ability to respond to actual or simulated inquiries from media representatives.
4. Demonstrate the ability of rumor control personnel to respond to simulated inquiries from the general public.
5. Demonstrate the ability to monitor media transmissions and respond to inaccurate information being transmitted by the media.
6. Demonstrate coordination of news announcement content with State and County authorities.

INITIAL CONDITIONS

Unit 1

Mode 6 Core Off-loaded

CVCS Crosstie - Out of Service for flow orifice replacement.

1AB Diesel and Train "B" Equipment - Out of Service for related work.

Unit 2

100 % Power, End of Life

Control Air Compressor - Out of Service for oil change and preventive maintenance.

RWST level indicator ILS-951, Failed as is.

TIMELINE

The times listed for the events below are times which have been estimated based on trial simulator runs of the scenario. They are nominal only and may vary depending on minor simulator changes or techniques the exercise control room crew may have that are different than the test crew's.

<u>TIME</u>	<u>EVENT/CONDITION</u>
0800	Exercise begins
0815	A RCS (Reactor Coolant System) leak of 15 gpm occurs.
0820	The Operators recognize a RCS leak is occurring and begin actions to identify source of leakage and attempts to isolate it in accordance with the RCS Excessive Leakage procedure. Symptoms occurring are: decreasing pressurizer level and pressure along with increasing containment pressure and humidity.
0845	The Operators recognize the RCS leak cannot be isolated. Plant conditions are stabilized and the decision is made to perform a Unit shutdown.
0900	Unit shutdown is initiated. Unusual Event is declared based on ECC-14. Initial notifications are made to plant management and off-site agencies.

0930 During Unit shutdown, the site experiences an Earthquake (No. 1), which can be readily felt in each Control Room.

0935 Plant Seismic Instrumentation confirms an Earthquake has occurred. An Alert is declared based on ECC-3. Initial notifications are made to plant management and off-site agencies.

Plant tours/inspections are begun to assess plant damage and determine if a site area emergency is necessary. Plant shutdown continues.

1015 TSC and OSA are operational.

1020 Plant tours/inspections reveal no plant damage has occurred.

1030 EOF is operational.

1045 Earthquake #2 is readily felt in each Control Room causing the pre-existing RCS leak to increase, causing a Reactor Trip and SI (Safety Injection) to occur. Plant symptoms occurring include: RWST Level Indicator malfunction, turbine high vibration, circulating water travelling screen High ΔP .

1050 High containment pressure causes a containment spray and containment isolation Phase B to occur. Site Area Emergency is declared based on either ECC-3 or ECC-14. Initial notifications are made to plant management and off-site agencies.

1115 PACHMS is placed in service.

1120 Plant accountability is completed.

1130 Earthquake #3 is readily felt in each Control Room. Plant symptoms occurring include: loss of 600 Volt AC electrical buss 2-AM-D, a barrel of hazardous water treatment chemicals falls and is punctured, resulting in a hazardous chemical spill.

1145 ECCS suction source is switched from the RWST to the recirculation sump.

1200 A 20 gpm leak occurs on the "East" RHR Pump. This results in a small off-site release via the plant vent.

1215 A medical emergency occurs in the TSC.

1230

"East" RHR Pump leak is isolated, termination of the off-site release.

1245

Hazardous chemical spill is neutralized/contained.

1400

Drill terminates with approval from the Recovery and Control Manager.