

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Reports No. 50-315/93009(DRSS); 50-316/93009(DRSS)

Dockets No. 50-315; 50-316

Licenses No. DPR-58; DPR-74

Licensee: Indiana Michigan Power Company
1 Riverside Plaza
Columbus, OH 43216

Facility Name: D. C. Cook Nuclear Power Plant, Units 1 and 2

Inspection At: D. C. Cook Site, Bridgman, Michigan

Inspection Conducted: February 22 - 26, 1993

Inspector: H. Simons
H. Simons

3/18/93
Date

Approved By: J. W. McCormick-Barger
J. W. McCormick-Barger, Chief
Emergency Preparedness and
Non-Power Reactor Section

3/19/93
Date

Inspection Summary

Inspection on February 22-26, 1993 (Reports No. 50-315/93009(DRSS);
50-316/93009(DRSS))

Areas Inspected: Routine, announced inspection of the operational status of D. C. Cook's emergency preparedness program including a review of actual events (IP 82701) and followup on previously identified items (IP 82301).

Results: No violations or deviations were identified. The licensee continued to have a well maintained emergency preparedness (EP) program with strong support from management. Significant progress had been made on the corrective actions to the exercise weaknesses identified during the November 1992 exercise. Three exercise weaknesses and one inspection followup item were closed during this inspection as corrective actions were thorough and completely implemented. The other concerns from the exercise had been fully addressed by the licensee, but not completely implemented and relate directly to exercise performance such that they will be evaluated during the next annual exercise.

DETAILS

1. Persons Contacted

A. Blind, Plant Manager
J. Rutkowski, Assistant Plant Manager-Technical Support
J. Wiebe, Safety and Assessment Superintendent
R. Krieger, Emergency Preparedness (EP) Coordinator
J. Smith, Assistant EP Coordinator
S. Colvis, Corporate EP Coordinator
D. Noble, Radiation Protection Superintendent
R. West, Licensing Coordinator

The personnel listed above attended the NRC exit interview on February 26, 1993.

The inspectors also contacted other licensee personnel during the inspection.

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

(Closed) Inspection Followup Items 315/92019-01 and 316/92019-01: The Shift Supervisor in the control room simulator failed to declare an Unusual Event (UE) as required by the emergency plan.

The licensee issued a memo highlighting exercise performance and the failure to classify the UE. This weakness and effective team decisionmaking with respect to event classification will be emphasized during all 1993 EP training. Finally, the Emergency Action Level (EAL) which the Shift Supervisor failed to classify was revised to clarify the need for the UE declaration since the previous wording of the EAL was obscure.

The inspector interviewed two Shift Supervisors and posed simulated plant conditions to them that required emergency declarations. Each Shift Supervisor properly classified these events. Considering the licensee's thorough corrective actions and the successful demonstration of two Shift Supervisors to classify events, this item is considered closed.

(Closed) Inspection Followup Items 315/92019-02 and 316/92019-01: The licensee failed to properly implement the emergency plan and initiate the activation of the Emergency Operations Facility (EOF) at the Alert declaration.

The licensee issued a memo which emphasized this weakness and the "lessons learned" from the exercise. Interviews with the Shift Supervisors demonstrated that they had a clear understanding that the EOF should be activated after an Alert declaration. This item is considered closed.

(Open) Inspection Followup Items 315/92019-03 and 316/92019-03: The licensee failed to demonstrate adequate command and control in directing the onsite emergency response efforts.

The licensee was in the process of changing their emergency plan to better define the position of Site Emergency Coordinator and the processes of transferring command and control from the Shift Supervisor to other senior members of the licensee's staff.

These changes will clarify the responsibilities assigned to the Site Emergency Coordinator and the process of transferring command and control. This item will remain open until the changes are made to the emergency plan and this concern is resolved by successful demonstration during an exercise.

(Open) Inspection Followup Items 315/92019-04 and 316/92019-04: The licensee failed to demonstrate the capability to dispatch emergency response teams from the Operational Staging Area (OSA) in a timely manner.

The licensee had taken prompt corrective actions to resolve this concern which included reorganization of the OSA such that teams could be dispatched in a timely manner. The licensee held weekly meetings and walkthroughs to improve performance in this area. On January 28, 1993, a full scale OSA drill was held to test some of the changes the licensee was considering. This drill was very successful with all teams being dispatched in less than 20 minutes.

This item will remain open pending successful demonstration of the timely dispatch of teams and demonstration of the changes made to OSA operations.

(Closed) Inspection Followup Items 315/92019-05 and 316/92019-05: The post accident sampling (PASS) teams failed to demonstrate proper contamination controls.

During the PASS drill on February 23, 1993, contamination control was excellent. Section 5 of this report describes the PASS drill. This item is closed.

(Closed) Inspection Followup Items 315/92019-06 and 316/92019-06: The licensee failed to demonstrate the capability to perform post accident sampling and analysis within three hours from the time a decision was made to obtain a sample.

The licensee decreased the purge times associated with the PASS system by making some hardware changes. This greatly improved the time with which a sample could be obtained. In addition, the licensee initiated weekly drills to ensure that the chemistry technicians and the radiation protection technicians were proficient at sample acquisition and analysis. As is stated in Section 5 of this report, the PASS drill was

very successful with the PASS sample obtained and analyzed within one hour and thirty-five minutes. This item is closed.

3. Emergency Plan Activations (IP 82701)

Since March 22, 1991, the licensee declared nine unusual events due to the following:

- On July 14, 1991, a suspected bomb was found;
- On July 18, 1991, the diesel generators were declared inoperable due to design concerns related to withstanding tornado conditions;
- On August 1, 1991, an explosion in the switchyard caused a fire which lasted longer than 10 minutes;
- On August 19, 1991, a Technical Specifications shutdown was required when flux mapping indicated that some shutdown bank rods were below the insertion limit;
- On October 8, 1991, a shutdown was required when the auto safety injection test failed;
- On January 22, 1992, a shutdown was required when the boron in the reactor water storage tank was out of the Technical Specifications range;
- On April 4, 1992, both diesel generators were declared inoperable;
- On July 18, 1992, both diesel generators were declared inoperable;
- On November 22, 1992, a Technical Specifications shutdown was required.

All notifications to the State, counties and NRC officials were made in a timely manner and were adequately detailed. Comparison of NRC records of events and the licensee records were made and the inspector concluded that the NRC was very well informed of these plant events.

No violations or deviations were identified.

4. Operational Status of the Emergency Preparedness Program (IP 82701)

a. Emergency Plan and Implementing Procedures

There had been no major changes to the Emergency Plan since the last inspection. The licensee updated the emergency plan annually to make corrections and refine the plan. These changes were reviewed and did not decrease the effectiveness of the plan. One error in the plan was identified by the inspector. The plan stated that the NRC resident inspector would take over communications on the emergency notification system (ENS)

telephone. This was discussed with the Emergency Planning Coordinator and he indicated the licensee was aware that they were responsible for providing a communicator to the NRC via the ENS telephone. The EP Coordinator indicated that the Emergency Plan would be changed.

The inspector also reviewed several emergency plan implementing procedures (EIPs). These procedures were detailed and no discrepancies were found. All EIPs had been placed on a special procedure tracking software system which will improve the efficiency in maintaining and updating them.

The licensee is also in the process of rewriting the Emergency Action Levels (EALs) using the NUMARC methodology. They tentatively plan to submit the revised EALs to the NRC for review in June of 1993.

Current copies of the Emergency Plan and the Emergency Plan Implementing Procedures were found to be maintained in the emergency response facilities and the control room.

No violations or deviations were identified.

b. Emergency Facilities, Equipment, Instrumentation, and Supplies

Tours were conducted through the Control Room, Technical Support Center (TSC), Operational Staging Area (OSA), and Emergency Operations Facility (EOF). Each facility was well maintained and in an operational state of readiness. Inspection of essential equipment, instrumentation, and supplies did not reveal any problem areas.

The licensee continued to make improvements to the emergency response facilities. New radiation detection instruments had been placed in the various emergency response facilities. Major roof repairs were completed on the EOF and an emergency response data system (ERDS) terminal was added in the EOF. Portable telephones with headsets were adopted for use by key members of the emergency response organization (ERO). Finally, OSA public announcement speakers were placed throughout the OSA to allow the OSA Manager to more efficiently update his staff.

No violations or deviations were identified.

c. Organization and Management Control

No major changes had been made to the organization or the management control since the last inspection, except for the addition of a full-time Assistant EP Coordinator to the staff in January 1992. The new Assistant EP Coordinator was well qualified

for his job in that he previously worked with the EP Coordinator on a part-time basis on emergency response facility maintenance activities.

Adequate numbers of personnel have been identified for specific lead and support positions in the emergency response organization (ERO). The licensee maintained at least three qualified individuals in each ERO position.

The licensee installed a new automated callout system and were in the process of making software changes before it is implemented. The licensee's current callout system continued to be successful in staffing the emergency response facilities during the semi-annual augmentation drills.

No violations or deviations were identified.

d. Emergency Preparedness Training

The current training program was discussed with the trainers responsible for EP training. The licensee developed a training matrix to delineate training requirements for all emergency response organization (ERO) members. Along with the new training matrix, the inspector reviewed lesson plans and qualification cards.

The training matrix appropriately delineated the required training for each ERO position. The basic lesson plan given to Technical Support Center responders was reviewed and found to be adequate in scope and depth. To compliment this basic course, each responder had completed a qualification card which included a demonstration of response actions.

The inspector performed a random check to ensure personnel assigned to the ERO were currently qualified. No discrepancies were identified. All training records had been placed on a computerized tracking system. A more comprehensive database was being implemented to provide training tracking plus other useful emergency planning related functions such as the generation of a callout list.

The inspector also conducted interviews with select members of the ERO. Each person interviewed was very knowledgeable the specific duties of their ERO position and each had a broad understanding of the emergency plan in general.

The responsibility for EP training of the non-managerial responders had been consolidated with one person responsible for this task. This was done to improve training and lesson plan continuity. The licensee was in the process of revising lesson plans and upgrading training for these responders.

Records of the emergency preparedness drills were reviewed. All 1991 and 1992 health physics, medical, augmentation, assembly, and post accident sampling drills were performed and critiqued.

No violations or deviations were identified.

e. Independent Reviews/Audits

The licensee's Nuclear Safety and Design Review Committee (NSDRC) performed an audit of the EP program every twelve months. Audits No. 179 and 188, performed on February 25 - March 1, 1991 and March 2 - 9, 1992, respectively, were well done and satisfied the requirements of 10 CFR 50.54(t).

The adequacy of offsite interface was fully evaluated and no problem reports were generated.

No violations or deviations were identified.

5. Post Accident Sampling Drill (IP 82301)

The drill involved a post accident sampling (PASS) team which consisted of two chemistry technicians and two radiation protection technicians, personnel in the counting lab, and two management personnel in the OSA to give instructions to the team. Immediately after the PASS team was told it may be necessary to obtain a sample, they began dressing out and preparing themselves to obtain a sample. They were given a detailed briefing before leaving the OSA regarding plant conditions and their job assignment.

The PASS team functioned well as a team in performing their tasks. The radiation protection technicians were knowledgeable of the tasks that needed to be performed and conscientiously controlled external exposure and contamination. All personnel demonstrated the proper use of self-contained breathing apparatus.

The chemistry technicians worked quickly and efficiently to obtain the sample. The system lineup was completed with independent verification of valve alignment being properly demonstrated. The chemistry technicians took only one hour and thirty-five minutes to obtain and analyze the sample.

No violations or deviations were identified.

6. Exit Interview

The inspector held an exit interview on February 26, 1993, with the licensee representatives identified in Section 2 to present and discuss the preliminary inspection findings. The licensee indicated that none of the matters discussed were proprietary in nature.