

U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION III

Reports No. 50-315/80-19; 50-316/80-15

Docket Nos. 50-315; 50-316

Licenses No. DPR-58; DPR-74

Licensee: American Electric Power Service Corporation
Indiana and Michigan Power Company
2 Broadway
New York, NY 10004

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

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

Inspection Conducted: November 1-31, 1980

Inspectors: *for* E. R. Swanson

12-23-80

for N. E. DuBry

12-23-80

Approved By: *D. C. Boyd*
D. C. Boyd, Chief,
Projects Section 4

12-23-80

Inspection Summary

Inspection on November 1-30, 1980 (Reports No. 50-315/80-19; 50-316/80-15)

Areas Inspected: Routine, onsite regular and backshift inspection by the resident inspector. Areas inspected included operational safety verification, inspection during long term shutdown, maintenance observations, surveillance observation, new fuel receipt, accessible portions of Unit 1 and Unit 2 facilities, followup on previously identified items, and independent inspection. The inspection involved a total of 126 inspector-hours onsite by two NRC inspectors including 56 inspector-hours off-shifts.

Results: Of the seven areas inspected, no items of noncompliance or deviations were identified in six areas. One item of noncompliance was identified in one area (violation, level IV - failure to establish fire watch - paragraph 8).

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DETAILS

1. Persons Contacted

- *D. Shaller, Plant Manager
- *B. Svenson, Assistant Plant Manager
- *E. Townley, Assistant Plant Manager
- *R. Keith, Operations Superintendent
- *E. Smarella, Technical Superintendent
- R. Dudding, Maintenance Superintendent
- D. Duncan, C&I Supervisor
- *J. Stietzel, QA Supervisor
- D. Palmer, Radiation Protection Supervisor

The inspectors also contacted a number of operators, technicians, and maintenance personnel including some contact workers.

*Denotes those present at the exit interview.

2. Follow up On Previous Inspection Findings

(Closed) Noncompliance (315/80-02, 316/80-02): Review of standing orders not done. The inspector interviewed operators, reviewed records and discussed corrective action taken with licensee management. As delineated in the March 12, 1980 response. There were some minor record keeping errors. The inspector considers the corrective action taken adequate to preclude further noncompliance in this area.

3. Operational Safety Verification

The inspector observed control room operations, reviewed applicable logs and conducted discussions with control room operators during the month of November 1980. The inspector verified the operability of selected emergency systems, reviewed tagout records and verified proper return to service of affected components. Tours of auxiliary buildings and turbine buildings were conducted to observe plant equipment conditions, including potential fire hazards, fluid leaks, and excessive vibrations and to verify that maintenance requests had been initiated for equipment in need of maintenance. The inspector by observation and direct interview verified that the physical security plan was being implemented in accordance with the station security plan.

The inspector observed plant housekeeping/cleanliness conditions and verified implementation of radiation protection controls. During the month of November, 1980, the inspector walked down the accessible portions of the Unit 2 intermediate head safety inspection systems to verify operability. The inspector also witnessed portions of the radioactive waste system controls associated with radwaste shipments and barreling.

These reviews and observations were conducted to verify that facility operations were in conformance with the requirements established under technical specifications, 10 CFR, and administrative procedures.

4. Inspection During Long Term Shutdown

Following the Unit 2 shutdown the inspectors have observed the shutdown control room operations, reviewed applicable logs, and conducted discussions with control room operators and others during the month of November 1980. The inspectors verified the operability of selected emergency systems and verified proper return to service of affected components. Tours of the Unit 2 containment, the fuel handling areas, the auxiliary building and the turbine building were made to observe plant equipment conditions, including potential fire hazards, fluid leaks, and that maintenance requests had been initiated for equipment in need of maintenance. The inspectors witnessed work in progress on the Reactor Coolant Pump Oil Spill Guard verification. By observation and direct interview the inspector verified that the physical security plan was being implemented in accordance with the station security plan.

5. Monthly Surveillance Observation

The inspector observed technical specifications required surveillance testing on the containment air radio gas monitor (2 THP 4030 STP 153), containment air particulate process monitor (2 THP 4030 STP 152) and containment area monitor at the personnel lock (2 THP 4030 STP 155) and verified that testing was performed in accordance with adequate procedures, that test instrumentation was calibrated, that limiting conditions for operation were met, that removal and restoration of the affected components were accomplished, that test results conformed with technical specifications and procedure requirements and were reviewed by personnel other than the individual directing the test, and that any deficiencies identified during the testing were properly reviewed and resolved by appropriate management personnel.

The inspector also witnessed portions of the following test activities:

<u>Procedure No.</u>	<u>Title</u>
120 HP 4030 STP 016	RCS Leak Test
20 HP 4021.032.001	Starting, Parelleling, and Loading the Emergency Diesel
12 THP 6030I MP142	Cardox System Surveillance
1 THP 4030 STP.027	Power Range Nuclear Instrument Protection Set I.

6. Review of Plant Operations

During the month of November 1980 the inspector reviewed the following activities:

a. Review and Audits

On November 25, 1980, the inspector sat in on a safety review committee meeting. The inspector verified that provisions of technical specifications dealing with membership, review process, frequency, and qualifications were met. The inspector also verified that decisions made were reflected in the meeting minutes and that corrective actions proposed were taken.

On November 25, 1980, the inspector witnessed an audit conducted by the licensee's offsite audit team and verified conformance with technical specifications and QA procedures.

b. Training

The inspector attended two of the licensee's operator requalification lecture series and verified that lesson plan objectives were met and that training was in accordance with the approved operator requalification program schedule and objectives.

The inspector verified by direct questioning of one new, one existing, and one temporary employee that administrative controls and procedures, radiological health and safety, industrial safety, controlled access and security procedures, emergency plan, and quality assurance training were provided as required by the licensee's technical specifications; verified by direct questioning of one craftsman and one technician that on-the-job training, formal technical training commensurate with job classification, and fire fighting training were provided.

c. Emergency Preparedness

The inspector observed and verified that the emergency equipment, facilities and systems described in the emergency plan are in place and operable. It was noted that the major revision to the Emergency Plan is not yet approved for us by the NRC. The inspectors verified that systems and equipment to be used for monitoring release of radioactivity are operable as described in the Plan and as required by the Technical Specifications. It was noted that at one time two of three secondary side monitors were out of service. A drill was held to exercise the coordination between the local hospital, ambulance service and the plant staff in the handling of a contaminated, injured person. The inspectors also witnessed the annual site emergency drill on November 25, and attended the critique following the drill.

7. Monthly Maintenance Observation

Station maintenance activities of safety related systems and components listed below were observed/reviewed to ascertain that they were conducted in accordance with approved procedures, regulatory guides and industry codes or standards and in conformance with technical specifications.

The following items were considered during this review: the limiting conditions for operation were met while components or systems were removed from service; approvals were obtained prior to initiating the work; activities were accomplished using approved procedures and were inspected as applicable; functional testing and/or calibrations were performed prior to returning components or systems to service; quality control records were maintained; activities were accomplished by qualified personnel; parts and materials used were properly certified; radiological controls were implemented; and, fire prevention controls were implemented.

Work requests were reviewed to determine status of outstanding jobs and to assure that priority is assigned to safety related equipment maintenance which may affect system performance.

The following maintenance activities were observed/reviewed:

<u>Procedure No.</u>	<u>Title</u>
12 MHP 4050 FDF.001	Receipt, Storage, and Preliminary Inspection of New Fuel Assembly Shipping Containers
12 MPH 4040 FDF.002	Unloading of New Fuel Assemblies From Shipping Containers
12 MPH 4050 FDF.011	Auxiliary Building Crane Operating Instructions
12 THP 6010 RAD 601	Receipt of Radioactive Material
12 PMP 4040 SNM.001	SNM Accountability Manual for the D. C. Cook Plant
12 MHP 4050 FDF.005	Inspection of New Fuel Assemblies
12 MPH 4050 FDF.006	Storage of New Fuel Assemblies
12 MHP-SP-RFC-2483	Reactor Coolant Pump Motor Modification
1 THP 6010 Rad 594	RMS Radiogas Cap Source Calibration
1 THP 6010 IMP.012	RMS (Six Trgud-Gas) Calibration

Following completion of maintenance on the Radiation Monitoring System, the inspector verified the systems had been returned to service properly. The reactor coolant pump modification was not complete during the period of the report and they had not been returned to service.

8. Independent Inspection

During the inspection period a significant number of penetration fire barriers were repaired utilizing 12 MHP 5021.021 Revision 1. While



inspecting the outgoing work on November 24, the inspector noted a non-functional fire barrier between the control room and the cable vault which was being repaired, but with no one around. Technical Specification 3.7.10 requires a continuous fire watch to be established within one hour of the barrier becoming non-functional. The operators were also unaware of the opening and had a fire been detected in the cable vault and the CO₂ system initiated, the control room would have been made uninhabitable. Further discussions with the contractor and plant personnel revealed that there is no direction available to them as to what a fire watch is, or what his responsibilities and duties are. The lack of a fire watch is an item of noncompliance, violation category IV. The question of what a fire watch is and his duties is an unresolved item. While further inspecting the cable vault, penetration W-5095 was also discovered to be non-functional as the inspector could see thru the wall to the Turbine Building. This condition existed for several days and the hole was labeled with tape indicating that it was not to be sealed. This item supports the above noncompliance. In their response to a similar item of noncompliance (50-315/78-09), the licensee stated that a fire detection system is an adequate substitute for a fire watch though the Technical Specification does not make allowance for this.

The inspector also stated that the non-functional barrier might render the CO₂ and Halon suppression systems inoperable by not being able to adequately contain the gas and provide the necessary pressure and concentration.

9. Exit Interview

The inspector met with licensee representatives (denoted in Paragraph 1) throughout the month and at the conclusion of the inspection on November 26, 1980, and summarized the scope and findings of the inspection activities. The licensee acknowledged comments made concerning fire barriers as detailed in paragraph 8.