INDIANA & MICHIGAN ELECTRIC COMPANY

P. O. BOX 18
BOWLING GREEN STATION
NEW YORK, N. Y. 10004

May 15, 1981
AEP:NRC:00550

Donald C. Cook Nuclear Plant Unit Nos. 1 and 2
Docket Nos. 50-315 and 50-316
License Nos. DPR-58 and DPR-74
IE Report Nos. 50-315/81-01 and 50-316/81-01

Mr. James G. Keppler, Regional Director
U. S. Nuclear Regulatory Commission
Office of Inspection and Enforcement
Region III
Glen Ellyn, Illinois 60137

Dear Mr. Keppler:

The attachment to this letter provides our response to the Notice of Violation contained in IE Inspection Report Nos. 50-315/81-01 and 50-316/81-01.

An extension of time to answer the subject report until May 15, 1981 was granted by your Mr. D. W. Hayes to our Mr. J. I. Castresana on May 1, 1981.

Very truly yours,

R. S. Hunter
Vice President

RSH:dfs

cc: John E. Dolan - Columbus
R. C. Callen
G. Charnoff
R. W. Jurgensen
D. V. Shaller - Bridgman
Region III Resident Inspector at Cook Plant - Bridgman

8106090416

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ATTACHMENT TO AEP:NRC:00550

Response to Item 1 of Appendix A:

We have reviewed the circumstances surrounding the matter cited in Item 1 of the Notice of Violation involving our January 9, 1981 letter (AEP:NRC:00398). Prior to the submittal of that letter, plans had been made to install the silver zeolite cartridge purge unit by January 1, 1981. All the necessary materials were on site to meet that installation date. Final installation of the purge unit did not take place, however, until January 13, 1981 due to a decision made in early December, 1980 to install the purge unit within a fenced area in order to physically protect it. That decision required relocating a portion of the existing fence, but the job order to accomplish that work did not specify that the fence had to be moved early enough to meet the January 1, 1981 installation date for the cartridge purge unit. In addition, the same individuals involved in installing the purge unit were also involved with the NRC Radiological Assessment Team Inspection and steam generator tube plugging. All these activities were such that the deadline for installing the purge unit was missed.

It should be noted that our January 9, 1981 letter involved responses to 41 different items involving a myriad of committed implementation dates. These dates were reviewed to establish the feasibility of meeting each one of them and indeed, on December 24, 1980 the engineer preparing that letter made a note in the master copy of the submittal packet in the New York Office to revise the Plant's proposed January 1, 1981 date to January 31, 1981 for this item. Due to the complex nature of the January 9, 1981 letter and the lack of continuity caused in part by people being out of the office during that last week in December, the request to postpone the installation of the cartridge purge unit was not made of the NRC.

Changes are being made to our Corporate Procedures in order to better define the responsibilities for the accuracy of statements made in our letters and for meeting due dates. Some of these changes were discussed in our letter AEP:NRC:0520 dated March 2, 1981. In addition, our review of General Procedure No. 32 has resulted in suggested changes to provide us the assurance that accurate and reliable information is included in our submittals to the NRC. It is our intent to establish and agree to commitments which can be met. We believe that the changes noted above and the heightened awareness of our personnel to the importance of complying with our commitments will result in eliminating the issues raised by Item 1 of Appendix A.

Reponse to Item 2 of Appendix A:

On January 12, 1981 the Boron Injection Tank (BIT) was found to have a boron concentration below the minimum concentration required by the Technical Specifications. Plant shutdown was initiated but subsequently terminated when after adding boron, a later BIT sample showed an adequate boron concentration. A condition report was initiated and a Licensee Event Report (LER) submitted, all in compliance with our Technical Specification requirements. However, the NRC was not informed as per the 10 CFR 50.72 requirement that the NRC Operations Center be notified within one hour of any event requiring initiation of a shutdown in accordance with Technical Specification Limiting Conditions for Operation.

In order to avoid a recurrence of this event a meeting was held on January 20, 1981 with all Shift Supervisors and the Operation Superintendent, specifically to discuss this failure to notify the NRC and review the requirements of 10 CFR 50.72. An understanding of our reporting obligations now exists.

The dilution of the BIT was caused by inleakage from the charging system through one or both of the BIT motor operated inlet valves. Repair of these valves can only be performed with the Unit in cold shutdown. This will be accomplished during the upcoming refueling outage.

Response to Item 3 of Appendix A:

Steam Generator (S/G) blowdown is normally processed through the normal blowdown tank and blowdown treatment system but there are occasions requiring the use of the startup blowdown tank. There were two separate events which occurred in regard to this item. First, when operating on the startup blowdown tank a loss of sample flow indication on S/G 21 was discovered at approximately 2200 hours on January 12, 1981. The sample line valve lineup was checked and all valves were verified to be in their correct position. Since the valve lineup was correct, the technician assumed that the flow indicator was stuck and that actual flow did exist through the sample line as required by the Appendix B Technical Specifications. A job order was written to repair the flow indicator. Blowdown flow was shifted to the normal tank at 0318 hours on January 13, 1981 when the startup tank was no longer required. During this time interval radiation monitor R-19, which monitors the blowdown when the startup blowdown tank is in use, did not indicate any abnormal radiation level. Flow indication was reestablished during the day shift on January 13, 1981.

A second event of the same nature occurred on January 15, 1981. When operating on the normal blowdown tank it was again noted during a routine shift check that there was no sample flow indication from S/G 21. Another job order was written to investigate this event and repair the flow indicator.

On January 22, 1981, as a result of a normal job order review of repair work activities, the problem identified on January 15, 1981 was found to be due to a defective diaphram in the sample flow regulator and that there was no sample flow from S/G 21. The January 15, 1981 event involved the normal blowdown tank and the blowdown treatment system which directs the flow to the circulating water system. Therefore, the requirements of the Appendix B Technical Specifications were being met when the loss of sample flow occurred on January 15, 1981.

Due to the nature of this second incident, on January 22 the Plant management requested that the January 12, 1981 event involving the sample flow indication be promptly re-evaluated to determine if the event might have, in fact, been an actual loss of sample flow instead of the loss of flow indication originally diagnosed to be the cause. Since the re-evaluation could not determine whether or not either sample flow was lost or flow indication was lost on January 12, 1981, a Condition Report was prepared to document the possibility that an unmonitored release occurred. The Condition Report was reviewed by Plant Management and classified as requiring prompt notification pursuant to the requirements of the Appendix B Technical Specifications. Conservatively, the matter was reported to the NRC on January 22, 1981 through our Senior Resident Inspector. A followup report was submitted to the NRC on February 2, 1981 under AEO Report No. 81-001/041-0.

The cause of the failure to provide prompt notification on January 12, 1981 was the assumption that sample flow existed and that only flow indication was lost. Once the possibility of an actual loss of sample flow was considered, the NRC was promptly notified. To prevent a recurrence of this event the following steps have been taken:

1. Chemical Technicians have been reinstructed in the requirements of the Appendix B Technical Specifications, the importance of adhering to these requirements, and the need to promptly notify Plant management of any unusual events.

2. A technical department standing order TSO-021 was issued on January 26, 1981 requiring that:

   (a) Any chemical section or operations department personnel detecting a loss of flow or an apparent loss of flow or flow indication from any of the S/G's to radiation monitor R-19 notify the applicable Unit Control Room. If the steam generator startup blowdown tank is in service at the time, blowdown must be terminated on the S/G's that are indicating loss of flow.

(b) Any job order, design modification or similar work on the blowdown radiation monitor or the sample lines supplying it, shall be evaluated to determine if flow is going to be affected. If the work to be performed will affect the flow to R-19 from one or more of the S/G's, the Operations Department must be promptly made aware of this and blowdown must be aligned through the normal blowdown tank and blowdown treatment system.

3. A design change request, RFC No. DC-12-1825, has been initiated and is being processed to modify the flow meters on the S/G blowdown sample lines to a type that will incorporate a loss of flow alarm capability. The alarm will be annunciated in the affected Unit's Control Room.

Full compliance on Items 1 and 2 was achieved on January 29, 1981. A schedule for the completion of the design change request (Item 3) is not available at this time.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

April 9, 1981

Docket No. 50-315
Docket No. 50-316

American Electric Power Service
Corporation
Indiana and Michigan Power Company
ATTN: Mr. John E. Dolan
Vice Chairman
Engineering
2 Broadway
New York, NY 10004

Gentlemen:

This refers to the routine inspection conducted by Messrs. E. R. Swanson and N. E. DuBry of this office on January 1-31, 1981, of activities at D. C. Cook Nuclear Plant, Units 1 and 2, authorized by NRC Operating Licenses No. DPR-58 and No. DPR-74 and to the discussion of our findings with Mr. Shaller at the conclusion of the inspection.

The enclosed copy of our inspection report identifies areas examined during the inspection. Within these areas, the inspection consisted of a selective examination of procedures and representative records, observations, and interviews with personnel.

During this inspection, certain of your activities appeared to be in non-compliance with NRC requirements, as described in the enclosed Appendix A and a written response is required. Item 1 of Appendix A is similar to several previous instances of providing questionable responses to the NRC and therefore special emphasis should be given this matter in your response to this item. We evalutated your submitals to the NRC regarding item 1 of Appendix A for material false statements and concluded the signifiance of the item did not warrant escalated enforcement action, however, the matter is of concern to us and we will review your response to this item closely..

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter, the enclosures, and your response to this letter will be placed in the NRC's Public Document Room, except as follows. If the enclosures contain information that you or your contractors believe to be proprietary, you must apply in writing to this office, within twenty-five days of the date of this letter, to withhold

such information from public disclosure. The application must include a full statement of the reasons for which the information is considered proprietary, and should be prepared so that proprietary information identified in the application is contained in an enclosure to the application.

We will gladly discuss any questions you have concerning this inspection.

Sincerely,

James G. Keppler
Director, Region III

Enclosures:
1. Appendix A, Notice of Violation
2. IE Inspection Reports No. 50-315/81-01 and No. 50-316/81-01

cc w/encls:
D. V. Shaller, Plant Manager
Central Files
Reproduction Unit NRC 20b
AEOD
Resident Inspector, RIII
PDR
Local PDR
NSIC
TIC
Ronald Callen, Michigan Public Service Commission

RII	RIII	RIII	RIII	RIII	RIII
Boyd/jp	Heishman	Knop	Streeter	Davis	Keppler
3/11/81	4/3/81		4/7/81	4/7/81	4/8/81

Appendix A

NOTICE OF VIOLATION

American Electric Power Service Corporation

Docket No. 50-315
Docket No. 50-316

As a result of the inspection conducted on January 1-31, 1981, and in accordance with the Interim Enforcement Policy, 45 FR 66754 (October 7, 1980), the following violations were identified:

1. 10 CFR 50, Appendix B, Criterion V, states, in part, "Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings."

   American Electric Power Service Corporation General Procedure No. 32, "Preparation of Submittals to the U. S. Nuclear Regulatory Commission," establishes methods for insuring that commitments are met, that submittals to the NRC are factual, and required submittal dates are met.

   Contrary to the above:

   a. The licensee's January 9, 1981 submittal for TMI Task Action Plan requirements was not factual in that it stated that "In the basement assembly area there is a cartridge purge unit..." as a part of the response to Item III.D.3.3. A verification check by the inspector disclosed that this cartridge purge unit was present but was not installed, i.e., was not functional.

   b. IE Bulletin 80-11 "Masonry Wall Design" requires a two part response. The second response was not provided when due on November 4, 1980. An inspector inquiry resulted in a partial response dated January 14, 1981.

   This is a Severity Level V violation (Supplement I.E).

2. Unit 1 (50-315) - 10 CFR 50.72 states: "Each licensee of a nuclear power reactor licensed under 50.21 or 50.22 shall notify the NRC Operations Center as soon as possible and in all cases within one hour by telephone of the occurrence of any of the following significant events and shall identify that event as being reported pursuant to this section. Any event requiring initiation of shutdown of the nuclear power plant in accordance with Technical Specification Limiting Conditions for Operation."

   Contrary to the above, on January 12, 1981, Unit 1 entered the action statement of Technical Specification 3.5.4.1 requiring shutdown within

six hours due to the Boron Injection Tank being outside the specified concentration limits for boron. The NRC was not notified of this event within the prescribed time frame.

This is a Severity Level V violation (Supplement I.E).

3. Unit 2 (50-316) - Appendix B Technical Specification 2.4.2.9 states: "The radioactivity in steam generator blowdown shall be continuously monitored and recorded. Whenever these monitors are inoperable, the blowdown flow shall be diverted to the waste management system and the direct release to the environment terminated."

   Contrary to the above, on January 12, 1981, while the blowdown flow from steam generator 21 was directed to the start up tank, the sample line indicated no flow, thus preventing the capability to identify and quantify the radioactivity in the steam generator blowdown, and the specified actions of the above Limiting Condition for Operation (LCO) were not taken.

   This is a Severity Level V violation (Supplement I.E).

Pursuant to the provisions of 10 CFR 2.201, American Electric Power Servie Corporation is hereby required to submit to this office within twenty-five days of the date of this Notice a written statement or explanation in reply, including for each item of noncompliance: (1) corrective action taken and the results achieved; (2) corrective action to be taken to avoid further noncompliance; and (3) the date when full compliance will be achieved. Under the authority of Section 182 of the Atomic Energy Act of 1954, as amended, this response shall be submitted

Dated April 8, 1981

James G. Keppler
James G. Keppler
Director

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

REGION III

Report No. 50-315/81-01; 50-316/81-01 License No. DPR-58; DPR-74

Docket No. 50-315; 50-316

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

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

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

Inspection Conducted: January 1-31, 1981

Inspectors: E. R. Swanson 3-16-81

N. E. DuBry 3-16-81

Approved By: D. W. Hayes, Chief 3-16-81
Reactor Projects Section 1B

Inspection Summary

Inspection on January 1-31, 1981 (Report No. 50-315/81-01; 50-316/81-01)
Areas Inspected: Routine, onsite regular and backshift inspection by the resident inspectors. Areas inspected include Operational Safety Verification, Maintenance Observation, Surveillance Observation, Licensee Event report reviews, IE Bulletin followup, onsite review committee activities, followup on previous inspection findings, procedures for anticipated transients without scram, significant events review, and TMI-2 Action Plan items. The inspection involved a total of 176 inspector-hours onsite by two NRC inspectors including 49 inspector-hours on off-shifts.
Results: Of the ten areas inspected no items of noncompliance or deviations were identified in seven areas. Three items of noncompliance were identified in three areas (failure to follow procedures/inadequate management controls, paragraphs 6, 11; - failure to report significant event, paragraph 10; noncompliance with limiting condition for operation, paragraph 5b).

DETAILS

1. Persons Contacted

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

The inspectors also contacted a number of licensee employees and informally interviewed operators, technicians and maintenance personnel during the inspection.

*Denotes personnel who attended the exit interview.

2. Operational Safety Verification

The inspector observed control room operations, reviewed applicable logs and conducted discussions with control room operators during the month of January, 1981. The inspector verified the operability of selected emergency systems, reviewed tagout records and verified proper return to service of affected components. Tours of the auxiliary building and turbine building 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 January, 1981, the inspector walked down the accessible portions of the Unit 2 containment spray 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.

3. 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:

Repair and Test of Pressurizer Safety Valve (SV-45)
MHP 5021.001.004
MHP 4030.STP.001

Unit 1

Core Cooling Operability Test - 10 HP 4030 STP 005
BIT Pressure Transmitter - 1 THP 6030 IMP 015
"S" SI Pump Removed from Service for Maintenance Repair
Urgent Failure Alarm - Rod Control System

Unit 2

Maintenance on the No. 4 B.A. Transfer Pump
Maintenace Repair Procedure for the Boric Acid Transfer Pump
2 MHP 5021.007.001
Boron Injection Flow Path and Boric Acid Transfer Pump Operability
20 HP 4030 STP.002

Following completion of maintenance on the No. 4 Boric Acid Transfer Pump, the inspector verified that these systems had been returned to service properly.

4. Monthly Surveillance Observation

The inspector observed technical specifications required surveillance testing on the Power Range Nuclear Instruments and Steam Pressure Protection Sets 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: Emergency Core Cooling System Surveillance. The following procedures were also reviewed:

2 THP 6030 IMP 231	- Power Range Nuclear Instrument Calibration (N41-44)
12 OHP 4030 STP 005	- ECCS (For Unit 2 on 1-12-81)
2 THP 4030 STP 150	- Steam Pressure Protection Set III
2 THP 4030 STP 145	- Rx Logic Train "A and B" - Trip Breakers "A & B" (Train A)
1 THP 4030 STP .044	- Rx Trip Breaker Surveillance Test
1 THP 6030 IMP 131	- Power Range Nuclear Instrument Calibration (N41-N44)

5. Licensee Event Reports Followup

Through direct observations, discussions with licensee personnel, and review of records, the following event reports were reviewed to determine that reportability requirements were fulfilled, immediate corrective action was accomplished, and corrective action to prevent recurrence had been accomplished in accordance with technical specifications.

a. Unit 1

78-070/03L-0	Failure of VCR-10
80-018/03L-0	TAVE Less Than 541° F
80-022/03L-0	R-11, R-12 Inoperable
80-024/03L-0	Ice Condenser Doors Inoperable

Event Report 78-070/03L-0 was submitted nearly two years late. The inspector reviewed the circumstances surrounding the failure to report the event and is satisfied that the present Quality Assurance Group's tracking of the status of responses due should be adequate to prevent further recurrence.

Unit 2

79-041/03L-0	H_2 Recombiner Fail to Reach Temperature
79-041/03L-1	Supplement
80-028/03L-0	SI Relay Timer out of Tolerance
80-029/03L-0	R-11 Paper Drive Malfunction
80-030/03L-0	R-11, R-12 Sample Pump Seized
80-031/03L-0	Containment Hi-Hi Pressure Out of Tolerance
81-001/03L-0	W RHR Pump Control Power Lost
AEO 81-001/04T-0	Unmonitored Blowdown

b. Abnormal Environment Occurrence (AEO)

On January 12, 1981, at 2200 hours, blowdown was shifted to the startup tank at which time it was noted that the sample line for steam generator 21 indicated no flow. The shiftover to normal tank was accomplished on January 13, 1981 at 0318 hours. The fact that the indication was correct was confirmed by maintenance on January 15, 1981 and this was made known to management on January 21, 1981 and reported to the NRC on January 22, 1981 at 1330 hours. It was verified that there was no apparent change in activity of steam generator 21 during the period.

Appendix B Technical Specification (T.S.) 2.4.2.g states: "The radioactivity in steam generator blowdown shall be continuously monitored and recorded. Whenever these monitors are inoperable, the blowdown flow shall be diverted to the waste management system and the direct release to the environment terminated."

The failure to immediately divert the blowdown flow to the waste management system, when the ability to identify and quantify a potential release to the environment did not exist, is an item of noncompliance.

In the event of an AEO as defined in Section 1.1 a report shall be submitted under one of the report schedules described below.

Prompt Report Those events requiring prompt reports shall be reported within 24 hours by telephone, telegraph, or facsimile transmission to the Director of the NRC Regional Office and within 10 days by a written report to the Director, Office of Nuclear Reactor Regulation.

As noted above, a period considerably in excess of 24 hours elapsed between the discovery of the no flow indication and the prompt report to the NRC.

This event and the tardiness of the report reflect two concerns. First, that plant personnel are not adequately familiar with the Appendix B Technical Specifications and secondly, that communications within the plant appear inadequate.

6. IE Bulletin Followup

For the IE Bulletins listed below the inspector verified that the written response was within the time period stated in the bulletin, that the written response included the information required to be reported, that the written response included adequate corrective action commitments based on information presented in the bulletin and the licensee's response, that licensee management forwarded copies of the written response to the appropriate onsite management representatives, that information discussed in the licensee's written response was accurate, and that corrective action taken by the licensee was as described in the written response.

(Open) IE Bulletin 80-11 "Masonry Wall Design" required a two part response, due on July 8, 1980 and November 10, 1980. The licensee's first response was dated July 10, 1980 and only after queries as to the status of the second response did the licensee furnish a partial response and request for extension on January 14, 1981. As discussed with the licensee on January 2, 1981, there appears to be a breakdown of the system which tracks commitments and required responses. This concern is further heightened by other findings of missed commitments discussed in paragraph 11.

(Closed) IE Bulletin 79-21 "Temperature Effects on Level Measurements." The licensee's initial response to the bulletin due on September 12, 1979, was not sent until November 11, 1979. That response was to realign setpoints in a more conservative direction. During the review of the bulletin, the inspector discovered the licensee received a recommendation letter of corrective actions to be taken from the vendor. The licensee is re-evaluating their corrective action since it was not the favored recommendation. The inspector will continue to follow the licensee's re-evaluation effort.

7. Onsite Review Committee

The inspector examined the onsite review functions conducted during the period January 5-30, 1981 to verify conformance with technical specifications and other regulatory requirements. This review included: changes since the previous inspection in the charter and/or administrative procedure governing review group activities; review group membership and qualifications; review group meeting frequency and quorum; and, activities reviewed including proposed technical specification changes, noncompliance items and corrective action, proposed facility and procedure changes and proposed tests and experiments conducted per 10 CFR 50.59, and others required by technical specifications.

The inspector is not satisfied with the quality of review provided by the committee and has unresolved questions in the area of 10 CFR 50.59 review of changes, tests and experiments and the documentation of the basis for the decisions.

8. Followup on Previous Inspection Findings

(Closed) (50-315/80-16) Deficiency: Failure to follow procedure, (Calibration of feedwater flow transmitters). The inspector reviewed changes to the subject procedure (RTHP 6040 Per. 020) and found that temporary sheet two dated December 12, 1980 implemented an acceptable change to the calibration requirements for the feedwater flow transmitters. This item is considered closed.

9. Anticipated Transient Without Scram (ATWS)

The inspector reviewed the licensee's emergency and abnormal operating procedures addressing the plant responses to anticipated transient without scram (ATWS) events. Procedures reviewed by the inspector included:

Abnormal Procedure

12-OHP 4022.001.001	"Emergency Shutdown including Reactor Scram."
12-OHP 4022.005.002	"Emergency Boration."
12-OHP 4022.012.001	"Failure of Control Bank to Move."

Emergency Procedure

12-OHP 4023.001.001	"Alternate Emergency Shutdown and Cooldown Procedure Due to Loss of Normal and Preferred Alternate Methods."
12-OHP 4023.001.002	"Emergency Procedures Immediate Actions and Diagnostics."

Plant Manager Instructions

PMI 1020	"Reactor Operators: Authorities and Responsibilities for Safe Operation and Shutdown."

The inspection was completed on January 20, 1981 and the licensee was found to have met the acceptance criteria with the following exceptions. The licensee's formal procedures do not address what actions (in order of preference) to take in the event that manual scram initiation is ineffective. Independent interviews with licensed operators, operating engineers, shift operating engineers, and the plant operation's superintendent indicate they would first initiate BIT injection and then proceed to open the output breakers of the rod drive MG sets. They feel this is a more conservative approach by affecting a more rapid plant shutdown than emergency boration initiation.

10. Significant Event

Unit 1 - Boron Injection Tank Out of Specification

At 11:00 a.m. on January 12, 1981, the Boron Injection Tank (BIT) was sampled and found to contain a concentration of 19,300 ppm boron (less than the Technical Specification (T.S.) minimum of 20,000 ppm). As required by the T.S. action statement of 3.5.4.1, the BIT was placed in recirculation with an alternate storage tank of higher concentration. Power reduction commenced at 12:00 (Noon) since the BIT was not yet within specifications. At 1:26 p.m. a sample of the BIT was 21,459 ppm and the power reduction was terminated. In leakage and dilution of the BIT from the charging system are suspected as being the cause, but no corrective maintenance has been accomplished. Sampling frequency has been increased to prevent further recurrence.

The inspector became aware of the situation when he entered the control room at approximately 1:15 p.m. on a routine tour. 10 CFR 50.72 requires the following: Each licensee of a nuclear power reactor licensed under 50.21 or 50.22 shall notify the NRC Operations Center as soon as possible and in all cases within one hour by telephone of the occurrence of any of the following significant events and shall identify that event as being reported pursuant to this section:..... Any event requiring initiation of shutdown of the nuclear power plant in accordance with Technical Specification Limiting Conditions for Operation.

The licensee did not make the required notification to the NRC within the required time frame. This is an item of noncompliance.

11. TMI - Action Plan Items

III.D.3.3 - The licensee's January 9, 1981 letter (AEP:NRC:0398) was reviewed. Equipment discussed was inspected with the following results: "Two Eberline PING-1 airborne particulate and radioiodine monitor." These instruments are "PI" not "PING-1". Of the three Eberline Model PING-1A monitors one is out of calibration and the equipment necessary to perform the calibration is being procured. The Silver Zeolite cartridge purge unit discussed was not installed on January 9, 1981 and the fact was made known to licensee management on the same date. The installation was evidently scheduled to have been done by January 1, 1981, as was indicated in a draft reply the inspector was allowed to examine. After receipt of the formal response on January 12, 1981, it was again discussed. It was installed on January 13, 1981. Subsequent correspondence dated January 16, 1981 (AEP:NRC: 00 398B) stated that the proposed implementation date for this item of January 31, 1981 was inadvertently omitted.

This item is closed for task action plan purposes and is addressed in Appendix A to this report.

II.E.1.1 The evaluation by the NRC of the Auxiliary Feedwater (AFW) system dated October 6, 1980, did not take into account the licensee's submittal of November 3, 1980 as implied by the licensee's January 8, 1981 letter. It is also noteworthy that the evaluation addresses several outstanding commitments and unacceptable items. One referenced licensee response of December 11, 1979 (AEP:NRC: 00300) included a commitment to install an automatic pump trip on low suction pressure which would alarm in the control room by January 1, 1981. On January 13, 1981, the inspector found that due to procurement problems it would not be installed in the near future. The licensee was notified of this in a periodic exit meeting. On January 27, 1981, the licensee's letter (AEP:NRC: 00300E) revised the installation date for this item to April 30, 1981.

This revised date is acceptable to the NRC as discussed with the NRR Project Manager. It is unacceptable that the licensee was apparently not aware of the committed installation date and submitted their letter after the commitment date had passed. This item was addressed as a deviation from a commitment in Appendix A to IE Inspection Reports 50-315/80-21 and 50-316/80-17.

These two action plan items and also the late response addressed in Paragraph 5 indicate that the management tracking system which tracks responses and commitments is inadequate to insure that committed and required actions will be taken promptly and that incomplete action items are known at all levels of management. Corporate office procedure AEPSC General Procedure No. 32, "Preparation of Submittals to the U. S. Nuclear Regulatory Commission" was reviewed by the inspector. It appeared to adequately assign responsibilities and establish methods for tracking commitments and responses, insuring that submittals to the NRC are factual; and scheduling the steps necessary to meet submittal dates so that extensions can be requested prior to the deadline date. However, the several findings related to these areas addressed by this procedure indicate that it is not being complied with.

12. Exit Interview

The inspector met with licensee representatives (denoted in Paragraph 1) throughout the month and at the conclusion of the inspection and summarized the scope and findings of the inspection activities. The licensee acknowledged the inspection findings and violations discussed in Paragraphs 5, 6, 10, 11.

March 18, 1981

Docket No. 50-315
Docket No. 50-316

American Electric Power Service
Corporation
Indiana and Michigan Power Company
ATTN: Mr. John E. Dolan
Vice Chairman
Engineering
2 Broadway
New York, NY 10004

Gentlemen:

This letter refers to our letter dated February 24, 1981 concerning the recent Systematic Appraisal of Licensee Performance. The purpose of this letter is to transmit two revised pages to the enclosure which correct typographical and editorial errors.

Please accept out apology for any confusion these errors may have caused in your review of the meeting report.

Sincerely,

James G. Keppler
Director

Enclosure: Revised Pages 3 & 4 to
Reports No. 50-315/80-24 and
50-316/80-20

cc w/encl:
Mr. D. V. Shaller, Plant
Manager
Central Files
Reproduction Unit NRC 20b
AEOD
Resident Inspector, RIII
PDR
Local PDR
NSIC
TIC
Ronald Callen, Michigan
Public Service Commission

OFFICE	RIII	RIII	RIII	RIII	RIII		
SURNAME	Swanson	Boyd	Heishman	Davis	Keppler		
DATE	3/16/82		3/17/81	3/17/81	3/17/81		

Areas of Noncompliance:	Unit 1 (Points)	Unit 2 (Points)
Operations	100	148*
FFMS	12	12
Construction	10	
Safeguards	62*	62*
Total Points	184	222

*(includes one repetitive infraction)

Inspection reports covered by this review (Report Numbers):

Unit 1

50-315/79-23 thru 79-28
50-315/80-01 thru 80-14

Unit 2

50-316/79-20 thru 79-25
50-316/80-01 thru 80-14

Evaluation of noncompliance items:

Operations - During the SALP period 11 inspections were performed in this area; 13 infractions and five deficiencies were identified. These items, though numerically higher than expected were generally not significant from the standpoint of adversely affecting the health and safety of the public. However, the NRC is concerned that approximately 50 percent of these items of noncompliance are related to failure to adhere to procedure. The majority of the cases occurred early in the report period and improvement was noted in the frequency of mistakes. In spite of this recent improvement, NRC continues to be concerned regarding the number of personnel errors being made at this plant.

The licensee's performance in this area was rated as below average as compared to the performance of other Region III licensees.

Fuel Facilities Material Safeguards - During the SALP period four inspections were performed in this area; one infraction and one deficiency were identified. None of these items caused a hazard to the public.

In the areas of radiation protection, radwaste management and radioactive material transportation the licensee's performance was rated as average as compared to the performance of other Region III licensees.

This comparison does reflect the results of the intensive health physics inspection, which was conducted at the D.C. Cook plant December 8-19, 1981.

B. Number and Nature of Licensee Event Reports

Type of Events:	Unit 1	Unit 2
Personnel errors (A)	5	8
Defective procedures (D)	2	2
Component failure (E)	21	30
Design (B)	7	6
Other (X)	6	6

Licensee Event Reports Reviewed (Report Nos.)

Unit 1 79-52 thru 79-67 and 80-01 thru 80-25
Unit 2 79-35 thru 79-54 and 80-01 thru 80-32

Evaluation of LER's:

During this SALP period approximately 14 percent of the LER's were related to personnel errors while the majority of reportable events (57%) were attributed to component failure. It was noted that there has been a significant reduction in the percentage of personnel errors. This was a topic of the management conferences conducted April 15, 1980 and July 3, 1980 as described in paragraph D.

There is concern that certain events may have been misclassified. The reporting and classification of events will be closely screened by the NRC. Another concern is the LER's do not appear to be analyzed adequately to point out trends in repetitive equipment failures and management deficiencies.

Examples of recurring reportable occurrences are: Inoperable fire barriers, Radiation Monitor failures, and Auxiliary Feed Pump failures.

C. Escalated Enforcement Actions

Civil Penalties

None

Orders

None

Immediate Action Letters

None

D. Management Conferences Held During Past Twelve Months

April 15, 1980	Corporate Quality Assurance Program-Regulatory Performance
July 3, 1980	Regulatory Performance

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

February 24, 1981

Docket No. 50-315
Docket No. 50-316

American Electric Power Service
Corporation
Indiana and Michigan Power Company
ATTN: Mr. John E. Dolan
Vice Chairman
Engineering
2 Broadway
New York, NY 10004

Gentlemen:

This refers to the management meeting held on December 29, 1980, at your D. C. Cook Plant in Bridgman, Michigan relative to our evaluation of activities authorized by NRC Operating Licenses No. DPR 58 and No. DPR 74, attended by myself, others of my staff and by members of your staff.

The subjects discussed during the meeting are included in the Office of Inspection and Enforcement Meeting Report and the Licensee Performance Evaluation which are enclosed with this letter.

It is our view that this meeting was effective in communicating to you and your staff the results of our evaluation of your performance of licensed activities. Also, we hope it provided you with a better understanding of our inspection program and objectives.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosures will be placed in the NRC's Public Document Room.

No reply to this letter is required; however, should you have any questions concerning this matter, we will be pleased to discuss them with you.

Sincerely,

James G. Keppler
Director

Enclosure: IE Inspection
Reports No. 50-315/~~81-02~~ 80-24
and No. 50-316/~~81-02~~ 80-20

cc w/encl:
Mr. D. V. Shaller, Plant
Manager
Central Files
Reproduction Unit NRC 20b
AEOD
Resident Inspector, RIII
PDR
Local PDR
NSIC
TIC
Ronald Callen, Michigan
Public Service Commission

RIII	RIII	RIII	RIII	RIII	RIII
Swanson/so	Boyd	Heishman	Norelius	Davis	Keppler
1/28/81		2/20/81	2/23	2/21	2/23/81

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

REGION III

Reports No. 50-315/~~81-02~~ 80-24; 50-316/~~81-02~~ 80-20

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 Station

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

Meeting Conducted: December 29, 1980

NRC Personnel Present: J. G. Keppler, Director, Region III
R. F. Heishman, Chief, Reactor Operations and Nuclear Support Branch
D. C. Boyd, Chief, Projects Section 4, Region III
E. R. Swanson, Senior Resident Inspector, D. C. Cook
N. E. DuBry, Resident Inspector, D. C. Cook
R. R. Wohld, Inspector, Region III

Approved By: R. F. Heishman, Chief 2/5/81
Reactor Operations and
Nuclear Support Branch

Meeting Summary

Management Meeting on December 29, 1980 (Reports No. 50-315/81-02; 50-316/81-02)
Areas Discussed: Management meeting held at the NRC's request to discuss the regulatory performance of the activities at the D. C. Cook Nuclear Power Station as concluded in the Systematic Assessment of Licensee Performance (SALP) Program.
Results: A summation of the licensee performance evaluation was presented. Areas of concern were discussed with corporate management. The performance at the D. C. Cook Nuclear Power Station was considered to be adequate.

DETAILS

1. Persons Contacted

American Electric Power Corporation

R. S. Hunter, Executive Vice President for Construction and Nuclear Engineering
R. W. Jurgensen, Assistant Vice President
D. V. Shaller, Plant Manager
B. Z. Svensson, Assistant Plant Manager
J. F. Stietzel, Quality Assurance Supervisor

2. Areas Discussed

a. A summary of the SALP program was presented including its purpose, basis for and development of the evaluation, and NRC HQ's review of all SALP evaluations.

b. The NRC SALP evaluation of D. C. Cook Plant's performance was presented.

c. NRC's analysis of D. C. Cook Licensee Event Report (LER) significance for the SALP period, for 1975-1979, and for the first eight months of 1980 was presented. Comparisons with other Region III operating plants were presented.

d. NRC's analysis of D. C. Cook noncompliance history for the SALP period (9/1/79-8/31/80), for 1975-1979 and for the first eight months of 1980 was presented. Comparisons with other Region III operating plants were presented.

e. NRC's new enforcement policy, including its plans for implementation was discussed.

3. Licensee Comments

a. The licensee expressed great concern regarding the below average rating received in the operations area. They stated that it has always been their intent to excell in this area and that they will take whatever steps that are necessary to achieve this goal. The licensee stated that there has been recent improvement in reducing both the number of human errors committed and the number of occassions where failure to adhere to procedure is involved.

b. The licensee took exception to a concern raised by the NRC that some of their LER's had been misclassified, possibly to lower the number of human error type events reported. The licensee pointed out that in some cases the cause is not clear and the classification then becomes one of subjective judgement. Following the discussion of several examples it was established that both parties may have valid points and it was agreed that both parties would re-examine their position in this area.

Enclosures: D. C. Cook SALP Report

LICENSEE PERFORMANCE EVALUATION

OPERATIONS

NRC REGION III

Facility: D. C. Cook

Licensee: AEP Corporation/Indiana and Michigan Electric Co. (Subsidiary)

Unit Identification: Docket No. 50-315 License No. DPR-20
Date of Issuance - October 24, 1974 Unit - 1

Docket No. 50-316 License No. DPR-75
Date of Issuance - December 23, 1977 Unit - 2

Reactor Information: NSSS - Westinghouse
MWt - 3250 and 3391
MWe - 1054 and 1100

Appraisal Period: October 1, 1979 - September 30, 1980

Appraisal Completion Date: November 20, 1980

*Review Board Members:

W. L. Fisher, Chief, Fuel Facility Projects and Radiation Support Section
C. J. Paperiello, Chief, Environmental and Special Projects Section
J. F. Donahue, Chief, Security and Investigation Section
D. H. Danielson, Chief, Engineering Support Section 2
D. W. Hayes, Chief, Engineering Support Section 1
D. C. Boyd, Chief, Reactor Projects Section 4
N. E. DuBry, Resident Inspector, D. C. Cook Plant
P. R. Wohld, Reactor Inspector, Nuclear Support Section 1
R. F. Heishman, Chief, Reactor Operations and Nuclear Support Branch
S. O. Minor, NRR, Licensing Project Manager

*Either attended the review board meeting or provided written or verbal input to the evaluation.

A. Number and Nature of Noncompliance Items

Noncompliance Category:	Unit 1	Unit 2
Violations	0	0
Infractions	16 (one repetitive)	19 (two repetitive)
Deficiencies	7	6

Areas of noncompliance:	Unit 1 (Points)	Unit 2 (Points)
Operations	100	148*
FFMS	12	12
Construction	10	
Safeguards	62*	62*
Total Points	184	222

*(includes one repetitive infraction)

Inspection reports covered by this review (Report Numbers):

Unit 1

50-315/79-23 thru 79-28
50-315/80-01 thru 80-14

Unit 2

50-316/79-20 thru 79-27
50-316/80-01 thru 80-14

Evaluation of noncompliance items:

Operations - During the SALP period 11 inspections were performed in this area; 13 infractions and five deficiencies were identified. These items, though numerically higher than expected were generally not significant from the standpoint of adversely affecting the health and safety of the public. However, the NRC is concerned that approximately 50 percent of these items of noncompliance are related to failure to adhere to procedure. The majority of the cases occurred early in the report period and improvement was noted in the frequency of mistakes. This contributes to the continuing NRC concern regarding the number of personnel errors being made at this plant.

The licensee's performance in this area was rated as below average as compared to the performance of other Region III licensees.

FFMS - During the SALP period four inspections were performed in this area; one infraction and one deficiency were identified. None of these items caused a hazard to the public.

In the areas of radiation protection, radwaste management and radioactive material transportation the licensee's performance was rated as average as compared to the performance of other Region III licensees.

This comparison does reflect the results of the intensive health physics inspection, which was conducted at the D.C. Cook plant December 8-19, 1980.

In the areas of emergency planning and environmental protection the licensee's performance was rated as average. In the area of confirmatory measurements the split sample results were in complete agreement, thus the licensee's performance in this area is rated as "above average" as compared to other Region III Licensees.

The inspection frequency will remain unchanged next year. However, the scope of the emergency planning inspection will be increased due to recent changes in 10 CFR 50 Appendix E.

Safeguards - An investigation was conducted on November 14-16, 1979 based on allegations made by a former guard. None of the allegations were substantiated and no items of noncompliance were identified in the security program or operational activities.

A subsequent security inspection conducted on March 3 - 14, 1980 resulted in three items of noncompliance. (Two infractions and one deficiency.) Two of those items related to Access Control (Identification, Authorization and Badging); the remaining item dealt with Physical Barriers (Vital Area).

An inspection on August 18-22, 1980, disclosed three items of noncompliance (three infractions). The noncompliances dealt with Access Control (Identification, Authorization and Badging), Physical Barriers (Vital Area - Repeat), and Physical Barriers (Protected Area).

The inspection frequency does not need to be changed. Site and corporate management appear to be responsive to security problems and institute adequate corrective action in a timely fashion. The depth of site security supervision is adequate to provide the day-to-day attention expected and required to implement a sound security program. Overall rating compared to other sites is deemed "above average".

Construction - During the SALP period one inspection and two investigations were performed in this area. One item of noncompliance was identified during the inspection and it caused no hazard to the health and safety of the public.

The licensee's professionalism and responsiveness to IE Bulletin No. 79-14 was noted. Based on the inspection in this area, the licensee is rated "above average" overall.

Summary - The number of noncompliances at this site during this review period is approximately 50 percent higher than the regional average. The primary area of concern is failure to adhere to procedures. The second area of concern is human error. While it appears that there has been substantial improvement in the reduction of personnel errors during the SALP period, there have been two recent events which indicate the need for continued improvement in this area.

The licensee's overall regulatory performance is acceptable; however, the site and corporate management need to continue to focus attention in these two areas.

B. Number and Nature of Licensee Event Reports

Type of Events:	Unit 1	Unit 2
Personnel errors (A)	5	8
Defective procedures (D)	2	2
Component failure (E)	21	30
Design (B)	7	6
Other (X)	6	6

Licensee Event Reports Reviewed (Report Nos.)

Unit 1 - 79-52 thru 79-67 and 80-01 thru 80-25

Unit 2 - 79-35 thru 79-54 and 80-01 thru 90-20

Evaluation of LER's:

During this SALP period approximately 14 percent of the LER's were related to personnel errors while the majority of reportable events (57%) were attributed to component failure. The number of reportable events has remained the same, though there has been a significant reduction in the percentage of personnel errors. This was a topic of the management conferences conducted April 15, 1980 and July 3, 1980 as described in paragraph D.

There is concern that certain events may have been misclassified. The reporting and classification of events will be closely screened by the NRC. Another concern is the LER's do not appear to be analyzed adequately to point out trends in repetitive equipment failures and management deficiencies.

Examples of recurring reportable occurrences are: Inoperable fire barriers, Radiation Monitor failures, and Auxiliary Feed Pump failures.

C. Escalated Enforcement Actions

Civil Penalties - None

Orders - None

Immediate Action Letters - None

D. Management Conferences Held During Past Twelve Months

April 15, 1980 - Corporate Quality Assurance Program - Regulatory Performance.

July 3, 1980 - Regulatory Performance

E. Justification of Evaluations of Functional Areas Categorized as Requiring an Increase in Inspection Frequency/Scope (See evaluation sheets)

Emergency Planning

Increased inspection scope is warranted in this area because of the recent changes in 10 CFR 50, Appendix E. This is also applicable to other Region III licensees.

Fire Protection

Increased inspection scope is warranted in this area because of the addition of Appendix R to 10 CFR 50, and unresolved items in this area.

Reporting

Increased inspection scope is warranted in this area due to the apparent shift in categorization of reported occurrences discussed in paragraph B.

F. Other Observations

Licensing Activities

In general the licensee has been responsive to the NRC requests, especially to the numerous requests that resulted from the TMI Task Force. Some Technical Specification changes have been delayed but most of these can be attributed to the large burden placed on the licensee by the Short Term Lessons Learned, the TMI Task Action Plan, NRC Orders, and IE Bulletins.

In general, the licensee's performance in this area is rated as "above average", as compared to other licensees within the Licensing Project Managers scope of experience. However, in a few instances there appear to be some communication problems between personnel at the plant and personnel at the New York corporate offices.

D. C. COOK
PERFORMANCE EVALUATION

FUNCTIONAL AREA	Inspection Frequency and/or Scope: INCREASE	NO CHANGE	DECREASE
1. Management Control		X	
2. Plant Operations		X	
3. Refueling Operations & Activities		X	
4. Maintenance		X	
5. Surveillance & Preoperational Testing		X	
6. Training		X	
7. Radiation Protection		X	
8. Environmental Protection		X	
9. Emergency Planning	X		
10. Fire Protection	X		
11 Security & Safeguards		X	
12. Design Changes & Modifications		X	
13. Reporting	X		
14. QA Audits		X	
15. Committee Activities		X	
16. Quality Control		X	
17. Procurement		X	

R. F. Heishman, Chief
Reactor Operations and
Nuclear Support Branch

2/5/81
Date

INDIANA & MICHIGAN ELECTRIC COMPANY

P. O. BOX 18
BOWLING GREEN STATION
NEW YORK, N. Y. 10004

July 30, 1981
AEP:NRC:0579

Donald C. Cook Nuclear Plant Unit Nos. 1 and 2
Docket Nos. 50-315 and 50-316
License Nos. DPR-58 and DPR-74
IE Inspection Reports No. 50-315/80-23 and No. 50-316/80-19

Mr. James G. Keppler, Regional Director
U.S. Navy Regulatory Commission
Office of Inspection and Enforcement
Region III
Glen Ellyn, Illinois 60137

Dear Mr. Keppler:

This letter responds to your letter of May 26, 1981, which transmitted IE Inspection Report Nos. 50-315/80-23 and 50-316/80-19.

Mr. Greger of your staff granted to us a four-week extension to respond to this report.

Attachment 1 to this letter is our response to the "Significant Appraisal Findings". Attachment 2 is our response to the "Notice of Violation".

Very truly yours,

R.S. Hunter
Vice President

Attachments

cc: John E. Dolan - Columbus
G. Charnoff
R. C. Callen
R. W. Jurgensen
D. V. Shaller - Bridgman
Joe Williams, Jr.
NRC Resident Inspector - Bridgman

8109090551

AUG 5 1981

(STATE OF NEW YORK)
(COUNTY OF NEW YORK)

R. S. Hunter, being duly sworn, deposes and says that he is the Vice President of Licensee Indiana & Michigan Electric Company, that he has read the foregoing response to IE Inspection Reports No. 50-315/80-23 and No. 50-316/80-19 entitled "Health Physics Appraisal" and knows the contents thereof; and that said contents are true to the best of his knowledge and belief.

Subscribed and sworn to before me this 30th day of July 1981.

(Notary Public)

KATHLEEN BARRY
NOTARY PUBLIC, State of New York
No. 41-4606792
Qualified in Queens County
Certificate filed in New York County
Commission Expires March 30, 1983

ATTACHMENT 1 to AEP:NRC:0579

This attachment refers to Appendix A of Region III I&E Report No. 50-315/80-23 and No. 50-316/80-19 in which the NRC indicated that several significant weaknesses exist in our health physics program.

Following the NRC statement of the appraisal finding is our reponse which includes:

(1) steps which have been taken
(2) steps which will be taken, if still needed
(3) schedule for completion of action where so indicated

1. Organization and Management

"Short staffing in the Radiation Protection(RP) Section and poor communications are pervasive weaknesses limiting the effectiveness of the Donald C. Cook health physics program. Other related weaknesses involved in-plant supervisory presence, oversight of the contract health physics group, and corporate office responsiveness to plant health physics program needs. (Section 2, 3.1, 3.4, 3.5, 7.4, and 11.2)

Short Staffing in the Radiation Protection Section

Six new Junior Technicians have been hired within the past two months. All six hold Associate Degrees in Nuclear Power or Reactor Plant Health Physics programs and are scheduled to start in June and July, 1981. Individuals are also being sought through numerous placement agencies to further increase the number of technicians.

In an effort to ensure a future supply of trained technicians, a pilot program has been initiated with Terra Technical College of Fremont, Ohio. Ten local high school graduates have been selected from recruited applicants to enter this program which will culminate in an Associate Degree in Nuclear Power. Indiana & Michigan Electric Company (IMECo.) is providing part of the tuition and fees for each of the two years, as well as providing cooperative student experience in the Radiation Protection Section for the two summers preceding each fall semester. This program started on June 15, 1981.

IMECo. is also actively seeking to add two more degreed Health Physicists to the plant staff to increase the capabilities of the professional staff.

In-Plant Supervisory Presence

Augmenting the professional Health Physics Staff as described above should decrease the current work load of the Radiation Protection Supervisors (foremen). This will allow more time for the Supervisors to be involved in the support and supervision of both plant Radiation Protection Technicians and contractor Health Physics personnel.

Poor Communications in the Radiation Protection Section

The additions to the plant staff and the changes indicated in our response concerning technical training, as described above, should improve communications within the Radiation Protection Section. Information exchange during routine training classes will facilitate not only the transfer of technical information but also information of an administrative nature. Recent changes in the time of the daily meeting between the Radiation Protection Supervisorsand the Plant Radiation Protection Supervisor have been adjusted to facilitate job assignments and briefings. Recent changes in work schedules and meetings with representatives of the technician group have helped alleviate some of the communication barriers that previously existed.

Corporate Office Responsiveness

The AEPSC Nuclear Engineering Division was reorganized effective June 1, 1981, to provide closer corporate involvement in plant operation. The new position of Assistant Division Manager - Nuclear Operations was created and filled. Reporting to the individual are the heads of two sections, the Nuclear Operations Section and the Radiological Support Section.

The Nuclear Engineering Division is actively involved in recruiting an individual to be added to the staff with nuclear power plant (or other appropriate) experience to improve the capability to review and support the station's Radiation Protection Program.

Oversight of Contract Health Physics Group

Closer supervision of the contract Health Physics Group will be provided upon augmentation of the plant's Health Physics Staff as indicated above.

2. Technician Training

"Training and development of radiation protection technicians and foremen is inadequate. It is limited by the small RP staff and lacks basic resources such as experienced instructors." (Section 2.2 and 3)

Training and Development Program

To structure, coordinate and administer a technician training program, a new position of Chemical/Radiation Protection Technician Training Supervisor will be developed. This supervisor will be involved in training RP technicians and will be aided by the additional professional staff.

Two of the three Radiation Protection Supervisors have been sent to formal technical training courses in Radiation Protection at off-site locations. These have been one and two week courses of intensive theoretical and practical considerations of Health Physics. The third supervisor was scheduled for attendance this spring, but this was postponed due to personal conflicts and will be rescheduled. The Radiation Protection Department Performance Engineer(s) with a background in Health Physics would also be called upon to help provide continuing education to these supervisors under the direction of the Plant Radiation Protection Supervisor and coordinated by the Training Supervisor.

3. Exposure Control

"Significant weaknesses observed related to exposure control are weak documentation of contractor exposures, exposure investigations, and personal contamination occurrences; inadequately defined criteria for whole body counting decisions; and indifferently enforced facial hair standards." (Section 4.2, 4.3, and 9.4)

Contractor and Visitor Exposure Records

A new system for recording and filing exposure records for non-plant personnel was instituted on March 9, 1981. The personal identification information and records of external and radiation doses and whole body scan results are now recorded on a single 8" x 10" cardstock form. This, along with all other file records for that individual, is stored in a single file very similar to the file maintained for plant personnel, which was found to be an acceptable method of maintaining exposure records. (Section 4.2)

Exposure Investigation and Documentation

A new procedure will be instituted by January 1, 1982, which will identify the methods of investigation and documentation of exposure incidents including lost TLD badges, lost dosimetry, and off-scale dosimeters.

Internal Dosimetry Program

On March 24, 1981, a revision was issued to 12 THP 6010.RAD.409, "Assessment of Whole Body Count Results", which refined the methods of assessing doses from internal exposures, formalized the documentation of investigations into potentially significant airborne exposures (including guidance on when investigation is to be initiated) and also specified requirements for recounting individuals on a routine basis.

Not all personal contamination incidents involve potential internal deposition of radioactive material. In the past, only those individuals involved in personal contamination incidents were given whole body counts. However, a new procedure will be instituted and approved by January 1, 1982, which will formalize the documenting of personal contamination incidents and establish guidelines for required followup action, such as whole body counting.

Facial Hair Standards

A letter for internal distribution has been written outlining the policy of the plant regarding the state of facial hair on persons using respirators indicating that: 1) persons using tight-fitting respirators shall not have any facial hair that interferes with the sealing surface of the respirator; 2) any worker who has facial hair that intrudes into the area where the respirator seals against the face shall not be fitted with a respirator; and 3) any worker who is not clean shaven shall not be allowed to wear a respirator, even though he has previously obtained a satisfactory fit with a particular device.

The procedures for the use of face-piece type masks have been changed to re-emphasize the above policy and to prohibit the issuance of a face-piece type respirator to any individual who does not meet the above criteria.

4. Access and Contamination Control

"Lack of frisker availability within the plant, poor personal contamination surveillance at access control, uncertain key inventory, and awkward radiation work permit (RWP) controls combined to produce significant control weaknesses." (Sections 5 and 7.6)

Frisker Availability

At present there are friskers located in twelve specified locations within the Controlled Area. Additional locations will be identified closer to contaminated areas with frequent entries. All friskers in service are now checked on a daily basis with a radioactive source to assure satisfactory operation.

The importance of using friskers to monitor for contamination is presently stressed in the training of all personnel receiving radiation training. To supplement this, the topic will be included in future updates for all plant personnel and others receiving the semiannual Radiation Protection update training.

Contamination Surveillance at Access Control

The major portion of the traffic through the Access Control Facility is by individuals who have not entered contaminated areas in their work in the Auxiliary Building. Closer contamination surveillance by those who do enter contaminated areas will be improved through training, changes to plant procedures, and increasing the availability of friskers near contamination area exits.

Contamination surveillance will be increased at Access Control by (1) the installation of a prototype hand/foot frisker to aid in frisking individuals exiting from the Access Control Facility, and (2) by maximizing the sensitivity of the existing portal monitors by changes in the methods of calibration and operation.

Key Inventory

Although not proceduralized, in actual practice the use of High Radiation Area keys by individuals is well controlled by signing in and out for those keys not specifically assigned to a single individual. However, a Plant Manager's Procedure will be written and approved by January 1, 1982, which formalizes and documents that control.

RWP Controls

On April 1, 1981, a new tour RWP was initiated for use by personnel in the Operations Department. The RWP permits entry to a list of specific rooms and locations, and is written to permit Operations Department personnel assigned to tour duty to enter for inspection and tour of any (or all) of the rooms routinely entered on a tour on that single RWP.

During the past two refueling outages (and in use during the current refueling outage), a new system of handling RWP's has been employed to decrease the number of RWP's posted but not actively being used. The system involves posting the permit for only those activities scheduled to be performed or those specifically requested by personnel doing the work.

By January 1, 1982, a change will be made in the use of the RWP system such that no RWP's requiring notification of Radiation Protection prior to entry or start of work will be posted until work is actually to begin.

5. Instrumentation

"Significant weaknesses identified in instrumentation were unsuitable monitor locations, inadequate portable instrument check sources, absence of quality control of counter calibration standards, and unsatisfactory performance of contamination control monitors." (Section 7)

Sources for Field Checking of Survey Meters

In addition to check sources in the Radiation Protection Counting Room there are two check sources mounted in the Auxiliary Building. One is located adjacent to the storage facility for the Operations Departmentsurvey meters on the 609' level close to the Access Control Facility, the other located at the Maintenance Hot Tool Crib where the attendent checks each survey meter before it is issued.

Additional sources have been ordered and will be installed on each level of the Auxiliary Building and near the Containment entrances.

Quality Control of Calibration Sources

The report indicates that with "the daily use of these standards" there can be no guarantee that they are not deteriorating.

The calibration standards used to calibrate the automatic planchette counters (APC's) will be reconfirmed within 60 days. However, it should be noted that the standards used to calibrate the analytical instruments are used only for calibration. Separate sources are used for daily checks of efficiency by comparing the counts generated by these daily check sources to the counts generated by that source at the time of a full calibration. Thus, the calibration sources (each stored in separate containers in separate locations from the check sources and having a different physical appearance) are handled only during the actual calibration of the instruments.

Operation, Calibration, and Sensitivity of Contamination Control Monitors

Contrary to the statement made in the report, there are not six, but twenty-seven friskers available in the plant. Of these, sixteen are placed in specific locations in the plant for personnel and equipment monitoring in routine or emergency situations. Alarm points are not set with a pulse generator. A pulse generator is used to calibrate the scaler to assure that meter response is accurate and that the alarm setting indication is accurate.

As part of the determination of additional locations for friskers, consideration will be given to shielding frisking stations where

background levels are too high. A study is currently underway to determine ways to increase portal monitor sensitivity by changing the calibration method to establish setpoints in response to a known radioactive source (rather than count rate).

Both the portal monitors and friskers have been placed on daily checks including operability and alarm function.

Area and Effluent Monitors

As part of the Radiation Monitoring System (RMS) upgrade for the D. C. Cook Plant, a digital Radiation Monitoring System will be installed which includes high-range in-containment monitors, extended range noble gas monitors, normal range particulate and Iodine - 131 measurement channels, area monitors and duct monitors.

The RMS upgrade consists of two phases. Phase I consists of equipment required to meet our commitments in response to NUREG-0737. Work for Phase I is scheduled for implementation by January 1, 1982, as required by NUREG-0737.

Phase II will consist of the additional equipment required for the general upgrade of the RMS. This phase consists of the addition of equipment to improve and automate the plant's RMS and includes airborne monitors, duct monitors, liquid monitors and additional area monitors. Phase II of the RMS upgrade is tentatively scheduled for completion by December 31, 1983.

Regarding the present liquid waste discharge monitor (R-18), under Phase II a new and upgraded liquid waste disposal monitor, will be installed. Purchase and delivery of a new monitor is being expedited with the vendor. It is expected that installation of the new monitor will commence upon delivery of new equipment.

This attachment refers to the Notice of Violation attached to I&E Report No. 50-315/80-23 and No. 50-316/80-19 in which the NRC indicated that certain of our activities appeared to be in noncompliance with NRC requirements. One item was identified as a Violation. Our response includes:

(1) corrective action taken and the results achieved

(2) corrective action taken to avoid further noncompliance, and

(3) the date when full compliance will be achieved

Response

Most areas of the Auxiliary Building are clear areas without contamination hazards due to the strict contamination control measures taken within the building. Consequently, many of the individuals have not been in contaminated areas. However, to minimize the remote possibility that small amounts of contamination may be inadvertantly carried past the Access Control Facility, the requirement for all personnel to frisk themselves prior to passing through Access Control is being enforced.

The additional following steps will also be taken to improve our operation with regard to the use of friskers in checking for contamination:

a. Hand/Foot friskers have been developed to aid in frisking individuals exiting from the Access Control Facility. A prototype model has been built at the plant and is installed.

b. A requirement that all personnel exiting any area posted as a "Contamination Area" are to frisk themselves at the nearest frisker station will be added to the appropriate procedures. Reminders of this requirement will be posted at the exit to the "Contamination Areas" and the topic will be included in regularly scheduled Radiation Protection classes (semi-annually) for all plant personnel. Non-plant personnel attend the training lectures which already emphasize the need for such frisking.

To facilitate these requirements, new frisker stations will be established at various points in the Auxiliary Building at or near exits to "Contamination Areas" where significant traffic may occur.

c. The sensitivity of the present portal monitors will be maximized by changes in the methods of calibration and operation.

We have placed an order for additional friskers. New permanent frisker locations will be in operation within 45 days contingent upon the receipt of the additional friskers, except where additional shielding will be required. Changes in the procedures governing frisker use will be completed prior to placing these friskers in service. The installation requiring shielding will take an additional 45 days. The changes to portal monitor calibration and use will be completed within 60 days.

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AUG 31 1981

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Docket No. 50-315
Docket No. 50-316

American Electric Power Service
Corporation
Indiana and Michigan Power Company
ATTN: Mr. John E. Dolan
Vice Chairman
Engineering
2 Broadway
New York, NY 10004

RECEIVED
SEP 08 1981
U.S. NUCLEAR REGULATORY COMMISSION

Gentlemen:

Thank you for your letter dated July 30, 1981, informing us of the steps you have taken to correct the Health Physics appraisal findings identified in our letter dated May 26, 1981.

Your proposed corrective actions for the significant appraisal findings appear to represent a positive approach to resolving these problems and thereby strengthening your overall health physics program. We are concerned, however, that your corrective actions to improve your radiation protection training program be timely. Therefore please respond within ten days of the date of this letter describing your schedule for implementing your revised radiation technician training program.

We will evaluate your efforts to resolve the significant appraisal findings and your corrective action for the noncompliances during future inspections.

Your cooperation with us is appreciated.

Sincerely,

Original signed by
A. Bert Davis

James G. Keppler
Director

cc: Mr. D. V. Shaller, Plant
Manager
D. Palmer, Plant Radiation
Protection Supervisor

cc w/ltr dtd 7/30/81:
DMB/Document Control Desk (RIDS)
Resident Inspector, RIII
Ronald Callen, Michigan
Public Service Commission

IE06
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RIII	RIII	RIII	RIII	RIII	RIII
MJ.O for MCS			RCK for		for
Schumacher/jp	Greger	Norelius	Hayes	Davis	Keppler
8/27/81				8/29	8/31

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