

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

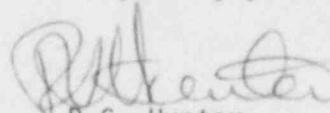
Dear Mr. Keppler:

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

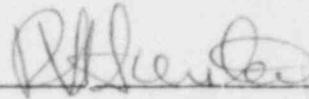
cc: John E. Dolan - Columbus
G. Charnoff
R. C. Callen
R. W. Jurgensen
D. V. Shaller - Bridgman
Joe Williams, Jr.
NRC Resident Inspector - Bridgman

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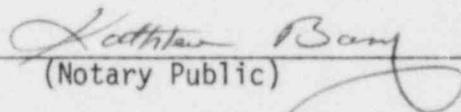
AUG 5 1981

(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, 7.1, 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 Supervisors and 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 AEFSC 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 25, 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 Department survey meters on the 609' level close to the Access Control Facility, the other located at the Maintenance Hot Tool Crib where the attendant 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.

ATTACHMENT 2 to AEP:NRC:0579

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 inadvertently 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.