

INDIANA & MICHIGAN ELECTRIC COMPANY

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BOWLING GREEN STATION
NEW YORK, N. Y. 10004

August 27, 1982
AEP:NRC:0531D

Donald C. Cook Nuclear Plant Unit Nos. 1 and 2
Docket Nos. 50-315 and 50-316
License Nos. DPR-58 and DPR-74
EMERGENCY OPERATIONS FACILITY

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Denton:

This letter and its attachment is an update to AEP:NRC:0531A which was sent to you on June 19, 1981, and which provided a conceptual design description for the Donald C. Cook Nuclear Plant Technical Support Center and Emergency Operations Facility. The attachment is a description of the Final Emergency Operations Facility for the Donald C. Cook Nuclear Plant. A description of the concept of operations of this facility is included in Revision 1 to the Emergency Plan, dated August 13, 1982. The attachment to this letter and Revision 1 to the Emergency Plan follow the concepts put forth in a management meeting with your staff on July 7, 1982 and reported in Mr. J. G. Keppler's letter of August 2, 1982.

The information provided in the attachment to this letter represents our current conception of the Emergency Operations Facility now under construction and scheduled to be functional by October 1, 1982. Minor changes may be required to accommodate unforeseen equipment problems or delivery schedules. Revision 1 to the Emergency Plan, submitted by Indiana & Michigan Electric Company, will be tested in the new Emergency Operations Facility for the first time during our next emergency exercise planned for October 21, 1982, and some adaptations may be required as the result of operating experience. We will reflect, as appropriate, any necessary changes in Revision 2 to the Emergency Plan.

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Mr. H. R. Denton

AEP:NRC:0531D

This document has been prepared following Corporate Procedures which incorporate a reasonable set of controls to insure its accuracy and completeness prior to signature by the undersigned.

Very truly yours,



R. S. Hunter
Vice President

/emc
Attachment

cc: John E. Dolan - Columbus
M. P. Alexich
R. W. Jurgensen
W. G. Smith, Jr. - Bridgman
R. C. Callen
G. Charnoff
Joe Williams, Jr.
NRC Resident Inspector at Cook Plant - Bridgman

ATTACHMENT
TO
AEP:NRC:0531D

DCCNP FINAL EMERGENCY OPERATIONS FACILITY (EOF)

DESIGN OF THE EOF

This is a description of the final Emergency Operations Facility (EOF) for the Donald C. Cook Nuclear Plant. A description of the Emergency Response Organization, how that organization would be mobilized to activate the Emergency Operations Facility, and how it would interact with other response facilities is provided in Revision 1 to the Donald C. Cook Nuclear Plant Emergency Plan, dated August 13, 1982 (Section 12.3.9.4).

The EOF will be located on I&MECo.'s property at the site of the Benton Harbor Service Building off the Pipestone Road exit of Interstate 94 in Benton Township, Michigan. This location is approximately eleven miles from the Cook Plant. The EOF is approximately 3 miles from the Ross Field Airport in Benton Harbor, 55 miles from the Kalamazoo Airport, 33 miles from the South Bend Airport, and 130 miles from the Chicago O'Hare Airport. The EOF is approximately 1 mile from the Joint Public Information Center (JPIC) which is located in the Lake Michigan Community College.

Figure 1 is an Emergency Operations Facility Layout Drawing. Figure 2 is a Benton Harbor Service Building-Emergency Operations Facility Plot Plan.

The EOF will be a one-story building, of modular type construction. The floor area of the working space is approximately 5500 square feet. Total floor space is approximately 6350 square feet. It will be

designed as a separate building, not utilizing any of the existing space inside the Benton Harbor Service Building.

The "heart" of the EOF is an operations room; this is where the crisis management team, communicators, the five-man NRC office, the dose assessors and the data display/terminals are located. The communications are to the:

Joint Public Information Center (JPIC).

AEPSC-New York Office (the Engineering EOF).

State and Local Representatives in their respective Emergency Operating Centers.

NRC Emergency Operations Center (ENS and HPN telephones will be installed).

Technical Support Center.

Licensee Off-Site Radiation Monitoring Teams.

A Communications Director will be located in this Operations Room and will be in charge of all the operations room communicators and status displays.

The design of the EOF structure and organization will ensure its ability to perform these functions:

- a. Management of overall licensee emergency response.
- b. Coordination of radiological and environmental assessment.
- c. Determination of recommended public protective actions.
- d. Coordination of emergency response activities with federal, state and local agencies.

The EOF is designed for occupancy by approximately 70 persons in the Emergency Response Organization during an emergency. A breakdown of this number is:

ERO Managers	5
Recovery and Control Manager's Staff	3
Technical Support Manager's Staff	3
Engineering, Design & Construction Manager's Staff	14
Radiation Control & Waste Handling Manager's Staff	7
Scheduling and Planning Manager's Staff	3
NRC Personnel	9
FEMA, State and County Personnel	3
Communicators	8
Clerical and Extra Staff	<u>15</u>
	70

In the design of this building the guidelines of NUREG-0696 were reviewed to make sure that the EOF meets these guidelines, or that there is an acceptable reason or compensating feature if it does not.

Ample parking spaces exist outside the EOF in the Benton Harbor Service Building parking lot for the number of vehicles that can be expected during an emergency. Space for mobile vans, that will be brought in by offsite support agencies, complete with electrical receptacles will be provided in this parking lot. In addition, space exists behind the building that can be used for landing a helicopter should the need arise.

The four data display/terminals to be installed in the EOF are:

1) MIDAS (Meteorological Information and Data Acquisition System) is a computer-based system developed by Pickard, Lowe and Garrick, Inc. that performs the basic functions of meteorological data collection and quality checking, along with atmospheric dispersion and dose calculations. An important feature of this system is its ability to provide visual display of the results in graphic form on a Graphics Display Terminal. MIDAS is designed to perform three basic functions:

- 1) Data Collection
- 2) Data Storage
- 3) Computation and Retrieval

The program was designed to assist nuclear plants in meeting the NRC requirements pertaining to on-site meteorological programs and emergency dose assessments.

2) AEP - Computer link to access an in-house computer program which allows a quick estimate of whole body and thyroid dose rates at the site boundary or at user-specified distances and determines the Emergency Action Levels associated with gaseous releases. For liquid releases, the program calculates MPC fractions and the Emergency Action Levels associated with these releases. The program uses monitor readings or known isotopic concentrations supplied by the user. It has the capability to input meteorological parameters from the Meteorological Tower on the site and calculates X/Q values using a straight line Gaussian dispersion model. This program will be used as a back-up in

the event that the MIDAS system is inoperable and/or a quick calculational method is necessary.

3) PLANT SAFETY SYSTEM DISPLAY is part of a technical support complex system from Westinghouse that provides information on safety system availability and Plant safety status. Display of Plant parameters at the EOF will be via a TSC "Command" console, to the TSC computer for either Unit 1 or Unit 2, as the need arises. The EOF console will have the capability to call up the displays associated with the Control Room BISI (Bypassed and Inoperable Status Indication) consoles and the displays associated with the Control Room PSSD with the exception of the iconic (vector graphics) displays.

4) RADIATION DATA DISPLAY SYSTEM (RDDS) which will be installed in the final EOF is an extension of the Plant Radiation Monitoring System (RMS) and consists of a color graphics CRT whose displays and functions are identical to the RMS CRTs installed in the Control Rooms and TSC. The Plant RMS is a radiological monitoring system which includes extended range noble gas monitoring systems, normal range particulate and Iodine-131 measurement channels, area monitors, liquid monitors, and duct monitors under the supervision of a pair of central control terminals. All radiation measurements are made with a standard Eberline detector combination which is served by a local processor (field micro computer). The local processor performs background subtraction, applies conversion factors, and retains the data from each detector channel in history files consisting of the last four hours of ten-minute averages, the last twenty-four hours of one-hour averages and the last twenty-four

days of one-day averages. The display terminal in the EOF has the capability to call up information from any specific detector or it can display a grid which will indicate which monitors are alarming.

The EOF building will be constructed and made operational by the required date of October 1, 1982. The milestone dates for the completion of the EOF are as follows:

Contracts for building design, fabrication, and erection were entered into on June 28, 1982. The applicable state and local building permits have been obtained.

Foundation installation started on July 12, 1982 and was completed by July 26, 1982. The building modules are currently in fabrication and shipment will start on August 16, 1982. The building will be available for occupancy on or about September 6, 1982.

Upon building completion, the installation of the various communication systems will commence. The installation will be completed on or about September 18, 1982.

The schedule for the installation and operation of the different display terminals is:

1. MIDAS TERMINAL

To access and fully utilize the MIDAS system a Tektronix Graphics Display Terminal and Hard Copy Unit will be available in the EOF. The equipment is scheduled to be installed and functional by October 1, 1982.

2. CPM002 TERMINAL

CPM002 is accessed through the Time Sharing Option (TSO). An IBM CRT and printer will be available in the EOF by October 1, 1982. The CRT will provide a visual display of the program's request for certain input data, as well as a display of the dose assessment results. A permanent copy of these results will be available at the associated printer which will print everything displayed on the CRT.

3. RADIATION DATA DISPLAY SYSTEM

Delivery and installation of color graphics CRT terminals for the EOF and TSC are expected some time in September. The CRTs will be connected directly to the Plant Radiation Monitoring system via modems and redundant communication channels.

4. PLANT SAFETY SYSTEM DISPLAY

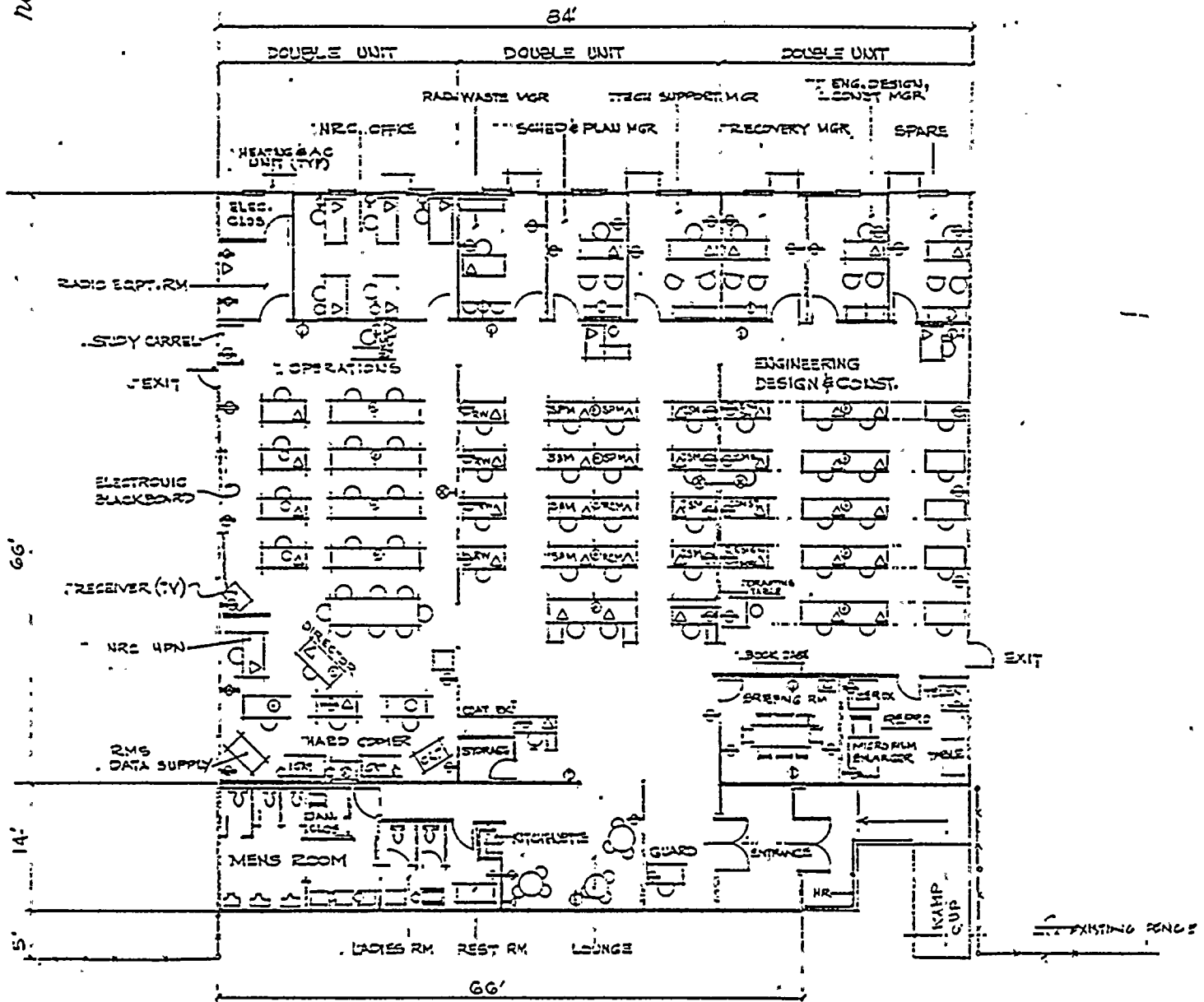
The PSSD data display/terminal for Unit 1 is scheduled to be installed in the EOF by October 1, 1982. Although we are making every effort to meet this date, our success in making the PSSD operational in the EOF is dependent on the TSC operational date and on the manufacturer making available suitable equipment on a temporary basis to substitute for long lead time equipment. In our letter to Mr. Denton, No. AEP:NRC:0678A, dated June 28, 1982 (response to Generic Letter 82-10 on Post-TMI Requirements), we stated that:

"We currently plan to complete the physical installation of the modifications required by NUREG-0737, Item III.A.1.2 by October 1, 1982, but that the checkout and debugging time required to fully implement this item is somewhat uncertain at this point. As such,

we believe that additional time will be necessary. We will be in a better position to ascertain how much additional time is necessary by the end of the Unit 1 refueling outage. We will thus inform you of the status of this item on or about September 15, 1982."

For Unit 2, we also requested an extension of the scheduled completion date in our letter No. AEP:NRC:0678A by stating that:

"...This extension request is based on the fact that the Unit 2 computer will not be delivered until late August and many of the physical modifications must be completed during the upcoming Unit 2 refueling outage. In addition, the checkout and debugging time required to fully implement this item is somewhat uncertain at this time. We will be in a better position to ascertain how much additional time is necessary after the completion of the Unit 1 system. We will inform you of the status of this item by January 15, 1983".



1ST FLOOR PLAN

LEGEND

- ⊕ DUPLEX ELECTRICAL WALL RECEPTACLE
- ⊙ DUPLEX ELECTRICAL FLOOR RECEPTACLE
- ⊕ BLOCK OUTLET
- △ TELEPHONE OUTLET
- ▽ TELEPHONE WALL OUTLET

EMERGENCY OF
AEP DESIGN

Figure 1