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U.S. NUCLEAR REGULATORY COMMISSION

In the matter of
CPCo. Midland Plant
Units 1 & 2

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OFFICE OF SECRETARY
MEETING & SERVICE
BRANCH

Docket Nos. 50-329
50-330
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BEFORE THE ATOMIC SAFETY & LICENSING BOARD

11/17/81

INTERVENOR REQUEST OF N.R.C. TO ADMIT THE
GENUINENESS & AUTHENTICITY OF THE ATTACHED DOCUMENT

I request the Nuclear Regulatory Commission to admit the genuineness and authenticity of the attached Inspection Report dated October 30, 1981 of an October 6-9, 1981 inspection of the Midland Plant, according to section 2.742 Part 2 NRC Rules of Practice.

Respectfully submitted,

Barbara Sternius

cc: ASLB Members
Wm. Paton, NRC
M. Miller, CPCo.
Secretary, NRC



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

RELATED CORRESPONDENCE *Stamiris*

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OFFICE OF SECRETARY
DOCKETING & SERVICE
BRANCH

Docket No. 50-329
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Consumers Power Company
ATTN: Mr. James W. Cook
Vice President
Midland Project
1945 West Parnall Road
Jackson, MI 49201

This refers to the routine safety inspection conducted by Messrs. R. S. Love and R. L. Lee of this office on October 6-9, 1981, of activities at Midland Nuclear Power Plant, Units 1 and 2, authorized by NRC Construction Permits No. CPPR-81 and No. CPPR-82 and to the discussion of our findings with Mr. R. M. Wheeler 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.

No items of noncompliance with NRC requirements were identified during the course of this inspection.

In accordance with 10 CFR 2.790 of the Commission's regulations, a copy of this letter and the enclosed inspection report will be placed in the NRC's Public Document Room. If this report contains any information that you or your contractors believe to be exempt from disclosure under 10 CFR 9.5(a)(4), it is necessary that you (a) notify this office by telephone within seven (7) days from the date of this letter of your intention to file a request for withholding; and (b) submit within twenty-five (25) days from the date of this letter a written application to this office to withhold such information. Section 2.790(b)(1) requires that any such application must be accompanied by an affidavit executed by the owner of the information which identifies the document or part sought to be withheld, and which

OCT 30 1981

contains a full statement of the reasons which are the bases for the claim that the information should be withheld from public disclosure. This section further requires the statement to address with specificity the considerations listed in 10 CFR 2.790(b)(4). The information sought to be withheld shall be incorporated as far as possible into a separate part of the affidavit. If we do not hear from you in this regard within the specified periods noted above, a copy of this letter and the enclosed inspection report will be placed in the Public Document Room.

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

Sincerely,

C. E. Norelius

C. E. Norelius, Director
Division of Engineering and
Technical Inspection

Enclosure: IE Inspection
Report No. 50-329/81-20
and No. 50-330/81-20

cc w/encl:
DMB/Document Control Desk (RIDS)
Resident Inspector, RIII
Ronald Callen, Michigan
Public Service Commission
Myron M. Cherry
Ms. Barbara Stamiris

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Report No. 50-329/81-20; 50-330/81-20

Docket No. 50-329; 50-330

OFFICE OF SECRETARY
PLANNING & SERVICE
License No. CPPR-81; HCPR-82Licensee: Consumers Power Company
1945 West Parnall Road
Jackson, MI 49201

Facility Name: Midland Nuclear Power Plant, Units 1 and 2

Inspection At: Midland Site, Midland, MI

Inspection Conducted: October 6-9, 1981

Inspectors: *FC Hawkins for*
R. S. Love10/23/81*FC Hawkins for*
R. L. Lee10/23/81Approved By: *FC Hawkins*
F. C. Hawkins, Acting Chief
Plant Systems Section10/25/81Inspection SummaryInspection on October 6-9, 1981 (Report No. 50-329/81-20; 50-330/81-20)Areas Inspected: Observation of electrical installation activities, review of electrical specifications and procedures and review of electrical storage and maintenance program. Reviewed licensee's action on previously identified items of noncompliance and unresolved items. This inspection involved a total of 72 inspector-hours onsite by two NRC inspectors.Results: Of the areas inspected, no items of noncompliance were identified.

DETAILSDOCKETED
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Consumers Power Company

- *J. G. Balzer, Construction - Electrical
- *W. R. Bird, Manager - MPQAD
- L. R. Howell, Mech/Fluids, IE&TV, MPQAD
- *F. L. Jones, Electrical Group Supervisor, IE&TV, MPQAD
- B. H. Peele, Construction Superintendent
- *M. J. Schaeffer, Section Head, Elec/I&C, MPQAD
- R. E. Sevo, Civil, IE&TV, MPQAD
- *D. M. Turnbull, Site QA Superintendent, MPQAD
- *R. M. Wheeler, Technical Section Head - Construction
- R. E. Whitaker, QA Engineering Supervisor, MPQAD

OFFICE OF SECRETARY
DOCKETING & SERVICE
BRANCHBechtel Power Corporation

- *B. J. Collin, Electrical Engineer
- *M. A. Dietrich, Project QA Engineer
- *J. E. Russell, Lead Electrical, QC Engineer

*Denotes those present at the exit meeting on October 9, 1981.

The inspectors also contacted and interviewed other licensee and contractor personnel.

1. Licensee Action on Previous Inspection Findings

- a. (Closed) Noncompliance (50-329/81-11-02; 50-330/81-11-02)
Bechtel procedure FPE 4.000, Revision 3, did not address:
(1) coiling of cables, (2) protection from jacket damage during coiling of cables, (3) minimum bend radius when cables are coiled. The inspectors identified Class 1E cables 2BQ403N, 2BB2430G, 2BB2431N and 2BB2430N that had jacket damage and minimum bend radius was exceeded for Class 1E cables 2AB6304D and 1BD2001AA. Also, Class 1E coiled cable 1BG020G was being supported with small gauge wire.
 - (1) Paragraph 6.6.1 of Bechtel procedure FPE 4.000, Revision 4, dated August 5, 1981, was revised to incorporate the above listed concerns.
 - (2) Bechtel NCR 3418 was prepared to document the four cables with jacket damage. Jackets were repaired using Raychem WCSF-N shrink fit tubing. The NCR was closed on July 6, 1981.

- (3) Bechtel NCR 3417 was prepared to document the minimum bend radius violation for Cable 2AB6304D. Disposition was use-as-is based on new minimum bend radius criteria received from the cable manufacturer for cables not under tension. NCR was closed on August 19, 1981.
- (4) Bechtel NCR 3404 was prepared to document the minimum bend radius violation for cable 1BD2001AA. Disposition was use-as-is, see NCR 3417 above. The NCR was closed August 20, 1981.
- (5) All Class 1E coiled cables observed were properly supported. The inspectors observed non-safety related cable ONB-6103R was being supported by non-safety related cable ONB6119M at the 685' level in the Auxiliary Building. The supporting of non-safety related coiled cables should be consistent with the requirements for safety related cables or this bad practice will again carry over into the supporting of coiled safety related cables.
- b. (Closed) Noncompliance (50-329/81-11-03) Class 1E cable 1AY001C in panel 1C47 was not separated for non-Class 1E cables 1NB1705A and 1NA05001A. Licensee NCR M-01-9-1-041 was prepared to document the above described separation problem. Cables were separated by the minimum 6" requirement and training was given to the "Termination Crews" and the involved QC inspector.
- c. (Closed) Unresolved Item (50-329/81-11-05; 50-330/81-11-04) It was observed that the vendor wiring was terminated with spaded lugs, in lieu of ring type lugs, in Battery Charger 1D17. This item was documented in QAR F-045, dated May 8, 1981. Project Engineering evaluated the spaded lugs and dispositioned the QAR use-as-is. Back-up documentation indicates that one of the battery chargers at the Midland plant had been seismically tested.
- d. (Open) Noncompliance (50-329/81-11-06; 50-330/81-11-05) Installed cable 1BB6404A in Motor Control Center 1B64 had a minimum bend radius violation. Bechtel NCR 3405 was prepared to document the above identified problem. Bechtel procedure FPE 7.000, Revision 8, dated May 11, 1981, has been revised to incorporate minimum bend radius criteria for cables inside equipment. As of October 8, 1981, NCR 3405 was still open. This item will remain open until the subject NCR is closed and the disposition verified.
- e. (Closed) Unresolved Item (50-329/81-30-03; 50-330/80-31-03) The test reports for battery chargers indicated an "OK" for the "Ohmmeter test to ground from AC input, DC output and alarms." The inspector requested a minimum value for the "OK" notation. Solidstate Controls, Inc. (battery charger fabricator) letter to Bechtel Professional Associates, dated May 27, 1981, states that an "OK" indicated that the minimum resistance value was equal to or greater than 20 megohms. This satisfies the inspectors concern.

- f. (Open) Noncompliance (50-330/81-12-07) It was observed that cable 2AB2322B had been installed in Motor Control Center 2B23 with a minimum bend radius violation. This fact was documented on licensee NCR M-01-9-1-061, dated May 21, 1981. As of October 8, 1981, the subject NCR was still open. This item will remain open until the subject NCR is closed and the disposition verified.
- g. (Open) Noncompliance (50-329/81-11-04; 50-330/81-11-03) The inspectors identified 14 instances in the upper and lower cable spread rooms where minimum separation was violated and barriers were not shown on the drawings. Per telecopy message dated October 7, 1981, Bechtel has issued four drawings showing the required barriers and indicated forecast issue dates for an additional 74 drawings. This item will remain open until the inspector can verify that barriers are scheduled for those cases where minimum separation can not be maintained.
- h. (Open) Noncompliance (50-329/81-11-07; 50-330/81-11-06) It was observed that the licensee failed to translate the marking of instrument sensing lines (IEEE-279) into specifications, drawings, procedures and instructions. Per discussions with Mr. W. R. Bird of Consumers Power Company (CPCo) on October 8, 1981, it is the NRC's understanding that CPCo will identify the instrument sensing lines at the Midland Plants in accordance with the requirements of IEEE 279-1971. Pending a review of the revised specifications, drawings, procedures and instructions, this item will remain open.
- i. (Open) Unresolved Item (50-329/81-12-07; 50-330/81-12-08) The inspector observed that Consumers Power Company (CPCo) test personnel were determinating and reterminating electrical power and control cables during the process of ongoing test activities. It was requested that the licensee develop an inspection plan to document these activities. During this inspection, the inspector met with CPCo test personnel and with MPQAD personnel on this subject. The inspector restated NRC's position that an approved procedure was required to perform these testing activities and that it was expected that MPQAD would audit the test group to verify their compliance with the procedure. It was suggested that a checklist be developed as part of the procedure to document that the cable/wire was reterminated on its proper landing point and if changes were required, that these changes be documented and drawings revised so that there is a complete history on the item involved. Pending a review of this procedure and the implementation thereof, this item will remain open.
- j. (Open) Unresolved Item (50-329/81-12-08; 50-330/81-12-09) The RIII inspectors identified concerns involving the qualification of Bechtel QC inspectors. The licensee stated that an audit of the Bechtel QC department would be accomplished. An audit was performed in June 1981, however, the results of the audit were inconclusive. The licensee stated that an additional audit would be performed prior to December 31, 1981. This item will remain open pending a review of the subject audit results.

2. Functional or Program Areas Inspected

a. Observation of Electrical Work Activities

- (1) The RIII inspectors observed that the licensee's contractor (Bechtel) is installing cable tray dividers in the upper and lower cable spreading room cable trays that presently contain numerous cables. The inspectors expressed a concern regarding how the licensee is going to assure that the presently installed cables are re-trained into the proper cable tray after installation of the dividers. Also, because the newly installed dividers will reduce the effective cable tray area, the licensee's method to assure that the thermal cable tray loading has not been exceeded is of concern. Pending a review of the above listed concerns, this item is unresolved. (50-329/81-20-01; 50-330/81-20-01)
- (2) The RIII inspectors observed that when cable tray dividers are installed, the dividers present sharp edges due to design and the method of installation. The licensee has documented this fact on Audit Finding Report (AFR) M-01-46-1-03. Pending a review of the AFR's disposition and corrective action implementation, this item is open. (50-329/81-20-02; 50-330/81-20-02)
- (3) The RIII inspectors observed that cables are not being tied down at 10' intervals as required by Bechtel procedure FPE 4.000, Revision 4, paragraph 6.4. The licensee has properly documented this fact in accordance with QA Program requirements on NCR M-01-9-1-122.
- (4) The RIII inspectors observed that cable trays are being filled above the side rails. This is not in accordance with the requirements of the Midland FSAR, paragraph 8.3.1.4.1. The licensee has documented this fact on NCR M-01-9-1-116 and QAR F119. Pending a review of the disposition and implementation of the specified corrective actions for both the NCR and QAR, this item is open (50-329/81-20-03; 50-330/81-20-03)
- (5) During a tour of the main control rooms it was observed that the licensee had not color coded the various safety related instruments, recorders, switches, etc. This item will be followed up by the NRC Human Factors Review Team in accordance with NUREG/CR-1580, "Human Engineering Guide to Control Room Evaluation".
- (6) The RIII inspectors observed the in-process installation of Class 1E cables 1AFW096C and 1AY3114A at the 640' level. The cables were being pulled through cable trays 1AHB14, 1AJB17, 1AJB18, 1AJB19, 1AJB13, 1AJB12 and 1AJB11. These circuits originate at Auxiliary Shutdown panel 1C114 and

terminate at solenoid valve 1SV1191A (1AFW096C) and panel 1Y131 (1AY3114A). Cables were routed in accordance with the applicable pull cards and installed in accordance with Bechtel procedure FPE 4.000, Revision 4. Discussions with the QC inspector indicated that he was knowledgeable in the inspection of this activity and had the required documents on-hand.

- (7) The RIII inspectors verified that the below listed Class 1E cables installed in the auxiliary building were routed, as noted, in accordance with the applicable cable pull card:
 - (a) 2BB2417CB from vital power distribution panel 2Y32 to transformer 2X54.
 - (b) 2BB5620A from MCC 2B56 to electrical penetration 2Z131.
 - (c) 1ABP0301G, 1AQ432D, 1AFW096A, and 1AQ432E from auxiliary shutdown panel 1C114 through routing points 1ASL928, 1AJB048 and 1AJB20.
- (8) The RIII inspectors observed that Class 1E cable 2BB5620A was terminated at electrical penetration 2Z131 in accordance with the applicable termination card. Landing points observed were terminal block D, terminals 13, 14, and 15.
- (9) The RIII inspectors reviewed the following drawings in the Control Room and Auxiliary Building and verified that they were the current revision:

E617Q, Sheet 2, Revision 18
E616Q, Sheet 1, Revision 16
E637Q, Sheet 2, Revision 2
E638Q, Sheet 2, Revision 3
E900Q, Sheet 3, Revision 21
E900Q, Sheet 4, Revision 24
E900Q, Sheet 15, Revision 21
J900003, Sheet 2, Revision 5B
J900003, Sheet 4, Revision 5B
J900003, Sheet 6, Revision 5B
J733-101, Revision 4B
J733-103, Revision 4B
J733-104, Revision 4B

b. Review of Electrical Records and Procedures

- (1) The RIII inspectors reviewed the weekly and quarterly maintenance records for 1000 HP Service Water Pump Motors OP75A, OP75B, OP75C, OP75D, and OP75E and MCC-1B63, 1B64, 2B63, and 2B64. The inspector determined that the above listed equipment was being checked in accordance with the applicable check sheets.

- (2) The RIII inspectors observed that Bechtel Procedure FPE 4.000, Revision 4, "Installation and Rework of Electrical Cables", did not address in detail how the licensee was going to verify that the cable pulling tension had not been exceeded when small cables and/or instrumentation cables were pulled. (i.e., cables that have a maximum pulling tension that is less than the force that can be exerted on the cable by one person). Tests performed on another project indicates that a man can exert approximately 125 pounds pull on a cable.

Pending a review of cable pulling records to verify that cable pulling tensions have not been exceeded, this item is unresolved. (50-329/81-20-04; 50-330/81-20-04)

Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items or items of noncompliance or deviations. Unresolved items disclosed during this inspection are discussed in Paragraph 2.a.(1) and 2.b.(2).

Open Items

Open items are matters, not otherwise categorized in the report, that need to be followed up on in a future inspection. Open items disclosed during this inspection are discussed in Paragraphs 2.a.(2) and 2.a.(4).

Exit Meeting

The inspectors met with licensee representatives (denoted under Persons Contacted) on October 9, 1981. The inspectors summarized the scope and findings of the inspection. The licensee representatives acknowledged the findings reported in previous paragraphs.