



Consumers
Power
Company

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December 9, 1983

83-10 #1

Mr J C Keppler, Regional Administrator
US Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

MIDLAND ENERGY CENTER PROJECT
DOCKET NOS 50-329 AND 50-330
CLASS 1E CABLE FACTORY REWORK
FILE: 0.4.9.82 SERIAL: 26621

November 10, 1983, Consumers Power Company notified your staff of a potential 10CFR50.55(e) condition involving the coordination of engineering holds and restrictions with the construction effort at the Midland jobsite.

This letter is an interim 10CFR50.55(e) report. The attachments to this letter describe the concern and summarize the investigation and corrective action taking place.

Another report, either interim or final, will be sent on or before March 2, 1984.

JWC/AHB/lr

Attachments: (1) MCAR-1, Report No 74, Revision 1, dated November 29, 1983
(2) MCAR-74, Interim Report 1, dated November 30, 1983.

CC: Document Control Desk, NRC
Washington, DC

RJCook, NRC Resident Inspector
Midland Nuclear Plant

DHood, USNRC Office of NRR

INPO Records Center

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OC1283-0010A-MP01

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QUALITY ASSURANCE PROGRAM
MANAGEMENT CORRECTIVE ACTION REPORT

JOB NO. 7220 Q NO. _____ REPORT NO. 74 DATE 11/29/83 Rev 1

I* DESCRIPTION (Including references):

An engineering restriction was placed on ESSEX cable with factory rework for use inside the Midland Unit 1 and 2 reactor containment buildings (Ref: BEBC-TWX-4607/com 18473, dated 12/18/80). Contrary to the above, the following nonconformances have been identified (Ref: NCR-A-00003):

(continued on page 2)

*** RECOMMENDED ACTION (Optional)**

- 1) Perform in-depth review to identify all ESSEX cables with factory rework installed in Class 1E circuits inside the Midland Unit 1 and/or 2 reactor containment buildings.
- 2) Document findings from 1) above on NCR and determine impact on the safety of operations at Midland.
- 3) Take appropriate remedial action(s) based on detailed findings from 1) and 2) above.

(continued on page 2)

REFERRED TO ☒ ENGINEERING ☒ CONSTRUCTION ☐ QA MANAGEMENT ☐ _____

☐ PROCUREMENT

ISSUED BY DE Crosby 11-29-83
for Project QA Engineer Date

This deficiency was reported to the NRC by Consumers Power Company as potentially reportable on 11/10/83.

II REPORTABLE DEFICIENCY

NOTIFIED CLIENT _____

☐ NO

☒ YES

[Signature] 11/30/83
Project Manager Date

III CAUSE

CORRECTIVE ACTION TAKEN

AUTHORIZED BY _____ Date

STANDARD DISTRIBUTION

ADDITIONAL DISTRIBUTION - AS APPROPRIATE

DIVISION QA MANAGER
MANAGER OF QA - BPC
GPD - QA MANAGER
LAPD QA MANAGER
SFPD QA MANAGER
PROJECT MANAGER
CLIENT

ENGINEERING MANAGER
PROJECT ENGINEER
QE SUPERVISOR

CONSTRUCTION MANAGER
PROJ SUPT/PROJ CONSTR MANAGER
CHIEF CONSTR QC ENGINEER

DIVISION PROCURENT MGR
PROJ PROCUREMENT MGR
PROCUREMENT SUPPLIER QUALITY MGR AND
DIV SUPPLIER QUALITY MGR

FORMAL REPORT TO CLIENT _____
(If Section II Applies) Date

CORRECTIVE ACTION IMPLEMENTED

VERIFIED BY _____
Project QA Engineer Date

*Describe in space provided and attach reference document.

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DESCRIPTION (continued):

- 1) Two (2) ESSEX cables with factory rework were installed in Class IE circuits inside the Unit 2 reactor containment building.
- 2) Six (6) ESSEX cables with factory rework were installed in Class IE circuits inside the Unit 1 reactor containment building.
- 3) The possibility exists that other ESSEX cables with factory rework (in addition to those identified in 1) and 2) above) are installed in Class IE circuits inside the Unit 1 and/or 2 reactor containment buildings (indeterminate condition).

Further investigation of the problem indicates that a programmatic deficiency exists in the method of initiating and documenting engineering holds and/or restrictions on hardware items and subsequent control of these items at the jobsite.



RECOMMENDED ACTION (continued):

- 4) Perform in-depth review to determine status of other engineering holds * and/or restrictions placed on hardware items at Midland to determine the extent, if any, that nonconformance reports should have been written.
- 5) If, as a result of Item 4) above, hardware deficiencies are noted, document on NCR and determine impact on the safety of operations at Midland.
- 6) Take appropriate remedial action(s) based on detailed findings from 4) and 5) above.
- 7) Review engineering, construction, procurement, and QA/QC procedures related to initiation, documentation and control of holds and/or restrictions placed on hardware items and revise or implement new procedures as necessary.
- 8) Ensure that procedures addressed in Item 7) above are integrated to provide adequate continuity/compatibility between organizations responsible for implementing subject procedures.
- 9) Provide formal instruction to appropriate personnel on procedures for initiation, documentation and control of engineering holds and/or restrictions placed on hardware items.
- 10) Determine root cause of problem and take appropriate corrective action(s) to prevent recurrence.
- 11) Issue report, either interim or final, by November 25, 1983.



NOTE: * The term 'Hold/Restriction,' as referenced in this report, refers to those directions initiated by engineering to restrain construction and/or procurement from performing activities on issued designs. This term does not apply to those 'holds' shown on engineering drawings or specifications to designate incomplete design.

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Attachment 1
Serial 26621
83-10 #1

136175 Subject: Management Corrective Action (MCAR) 74

INTERIM REPORT 1

Date: November 30, 1983

Project: Midland Plant Units 1 and 2
Consumers Power Company
Bechtel Job 7220

INTRODUCTION

This report addresses deficiencies in the method of controlling holds and restrictions placed on hardware items, which resulted in the installation of unqualified Essex cables in Midland Units 1 and 2 containment buildings.

DESCRIPTION OF DEFICIENCY

Project engineering restricted installation of Essex cable with factory reworked insulation in the Midland containment buildings. [Ref: TWX, BEBC-4607, 12/18/80 (Com 018473)]. Contrary to the above, the following nonconformances have been identified (Ref: NCR A-00003):

1. Two Essex cables from reels with factory reworked insulation were installed in Class 1E circuits inside the Unit 2 reactor containment building.
2. Six Essex cables from reels with factory reworked insulation were installed in Class 1E circuits inside the Unit 1 reactor containment building.
3. The possibility exists that other Essex cables with factory reworked insulation (in addition to those identified in 1 and 2 above) are installed in Class 1E circuits inside the Unit 1 and/or 2 reactor containment buildings (indeterminate condition).

Further investigation of the problem indicates that a programmatic deficiency exists in the method of initiating, documenting, and executing engineering holds and restrictions on hardware items and subsequent control of these items at the jobsite.

HISTORICAL BACKGROUND

The cable deficiency was discovered during a MPQAD review of cables installed in Units 1 and 2 containment buildings, resulting in issuance of NCR A-00003. Based on the NCR, a safety concern and reportability evaluation (SCRE) 100 was issued to evaluate the cable deficiency for reportability.

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ANALYSIS OF SAFETY IMPLICATIONS

A safety analysis on the eight cables identified on NCR A-00003 has been completed. It was determined that the eight cables included Class 1E circuits for the decay heat return letdown valves and the reactor building recirculating air cooling unit fans required to function in the event of a loss-of-coolant accident and/or main steam line break. It was concluded that because an environmental qualification was not performed on subject cable containing factory reworked insulation for inside containment, the reliability of this cable relative to all design bases was rendered indeterminate and, therefore, if left uncorrected, could have adversely affected the safety of operations of the Midland plant.

PROBABLE CAUSE

Preliminary investigation indicates:

1. Lack of adequate controls and procedures on issuing and enforcing project engineering's holds.
2. The condition necessitating the specific cable hold was not recognized as requiring a nonconformance report.

CORRECTIVE ACTION

1. An in-depth review is being conducted to identify cable installed in the containments for Units 1 and 2 for Class 1E circuits that may have come from subject Essex reels. Additional findings, if discovered, will be documented on NCR A-00003.
2. Remedial corrective action will be determined once the review in 1 above has been completed. Forecast date for completion is December 30, 1983.
3. A review to determine status of other engineering holds and/or restrictions placed on hardware items is in progress. A plan for completion of this activity will be issued by December 30, 1983. Any related hardware which is found to be nonconforming will be documented on a NCR, corrective action implemented, and safety impact determined.
4. A review of engineering, construction, procurement, and QA/QC procedures relating to initiation, documentation, and execution of holds and/or restrictions placed on hardware items is being performed, with a scheduled completion date of December 30, 1983.

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5. Formal instruction to appropriate personnel on revised or new procedures concerning initiation, documentation, and control of engineering holds and/or restrictions placed on hardware items will be conducted by January 30, 1984.
6. Investigation into the root cause, and assignment of appropriate corrective action, is in progress. Completion is scheduled for January 30, 1984.

REPORTABILITY

This deficiency was reported to NRC by Consumers Power Company on November 10, 1983.

Submitted by:

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R.C. Hollar

Project Quality Engineer

Approved by:

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E.B. Poser

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Project Quality Assurance
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