



**Consumers
Power
Company**

DMB

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June 29, 1984

83-09 #5

Mr J G Keppler, Regional Administrator
US Nuclear Regulatory Commission
Region III
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MIDLAND ENERGY CENTER PROJECT
DOCKET NOS 50-329 AND 50-330
REVIEW AND CONTROL OF Q LISTED
DRAWINGS AND SPECIFICATIONS
FILE: 0.4.9.81 SERIAL: 30344

References: J W Cook letters to J G Keppler, same subject

- 1) Serial 22608, dated November 21, 1983
- 2) Serial 26648, dated January 6, 1984
- 3) Serial 27998, dated February 10, 1984
- 4) Serial 28075, dated April 6, 1984

This letter is an interim 10CFR50.55(e) report on a deficiency in the system for processing field changes involving project design documents.

The attachment to this letter provides a description of the deficiency and the corrective actions being taken to resolve this problem. Future reports will provide the results of the remaining corrective actions. It is noted that the completed extensive investigations have not found any hardware discrepancies representative of reportable safety concerns.

Another report, either interim or final, will be sent on or before December 31, 1984.

James W. Cook

JWC/AHB/cd

Attachment: 1) MCAR-73 Final Report, dated June 20, 1984.

CC: Document Control Desk, NRC
Washington, DC

Midland NRC Resident Office
Midland Nuclear Plant

DSHood, USNRC Office of NRR

INPO Records Center

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3/14/84

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SUBJECT: MCAR 73

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FINAL REPORT

DATE: June 20, 1984

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

Introduction

This report addresses problems with inconsistent processing and review of Field Change Requests (FCRs)/Field Change Notices (FCNs) against project design documents.

Description of Concern

It was found that in some cases project design change documents (FCRs/FCNs) were not attached to the proper base design documents or reviewed by the appropriate quality organization. (Ref: CPCo Audit MSA-83-32)

Bechtel Field Procedures FPD-1.000, FPD-2.000, and FID-2.100, Project Engineering Procedure 4.62.1 and Administrative Department Procedure and Instruction ADP-2.12 and ADI 2.12.10 describe the process of initiating, reviewing, approving and processing FCRs and FCNs. Although the individual organizations complied with their respective procedures, the operations involved in these procedures were not fully integrated to achieve proper continuity between site and design office activities, thereby resulting in a situation where:

- a) In some cases FCRs and FCNs were not attached to the proper base design documents. (Ref: CPCo Audit MSA-83-32)
- b) In some cases quality organization review of FCRs/FCNs affecting Q-related design documents were not performed where required. (Ref: CPCo Audit MSA-83-32)

Historical Background and Summary of Investigation

It has been identified that design engineering has not consistently reviewed and indicated either approval or disapproval of the entries made by field engineering in the "other drawings or specifications affected" block on the FCR and FCN forms. (The FCR and FCN forms are included as

Attachments 1 and 2.) Furthermore, field engineering assumed that if design engineering did not comment on the entries in the "other drawings or specifications affected" block, design engineering concurred with the entries; however, this was not always the case.

Design engineering sometimes referenced related documents in the "remarks" block (which is reserved for design engineering use) on the FCR and FCN forms. The design office Document Control Center (DCC) keyed only on the "remarks" block for entering other related design documents in the FCR/FCN registers. On the other hand, Field Document Control Center (FDCC) personnel keyed on documents listed in the "other drawings and specifications affected" block, rather than the "remarks" block, whether or not the "remarks" block mentioned other documents.

PEP 4.62.1 identified the requirement for quality organization review of FCRs/FCNs to Q-listed specifications. In some cases FCRs/FCNs were written against Q or non-Q documents and then other Q-listed specifications were added to the "other drawings or specifications affected" block or the "remarks" block without obtaining the appropriate quality organization review and approval for the added Q-listed documents.

Analysis of Safety Implication

As described in the corrective action section of this report, all FCRs with at least resident (design) engineering interim approval and all FCNs with at least project field engineering approval have been reviewed to determine the base design documents that they should be posted against. These FCRs and FCNs have also been reviewed to identify those cases where the quality organization review and approval was required but not performed. Appropriate review and approvals have been obtained. The above reviews have included an evaluation as to the possibility of incorrect hardware installation.

While there was a lack of integration between the procedures described previously, no safety concerns were identified.

Root Cause

The root cause was the lack of integration between field procedures/instructions FPD-1.000, FPD-2.000, and FID-2.100, Project Engineering Procedure (PEP) 4.62.1 and Administrative Department Procedure ADP-2.12 and Administrative Department Instruction ADI 2.12.10, which govern the initiation, review, approval, and processing of FCRs and FCNs.

Corrective Action

1. A program was established and documented in FCR/FCN Review and Resolution Program (FID-2.400) to: a) identify the proper base design documents which the FCR and FCNs are to be posted against, b) ensure required quality organization review and approvals were obtained, and c) to evaluate whether or not any lack of the above resulted in hardware deficiencies. The program also provided for overview and verification by the Midland Project Quality Assurance Department of these actions. A total of 52,627 FCRs and FCNs were reviewed under this program. From this review, a total of 10 NCRs (see Attachment 3) were initiated and reviewed and it was determined that no safety concerns exist.

Associated with the resolution of the FCR/FCN process, related document control activity problems (e.g., improper attached documents, etc.) were identified and were documented via MPQAD MCAR/R DAT-1.

In addition to the foregoing, the Field Procedures, Project Engineering Procedures and Administrative Department Instructions and Procedures associated with FCRs and FCNs have been reviewed and revised as necessary to provide integration. Bechtel personnel have been instructed in the use of these revised procedures in accordance with their departments' respective training procedures.

Actions to provide that FCRs/FCNs are posted against the proper controlled design documents on the Midland project have been taken and are now complete.

2. A full scope audit (MSA-84-5) was performed by Midland Project Quality Assurance Department, Site Audit Branch, on February 27, 1984 - March 30, 1984. The objective of this audit was to evaluate the adequacy and implementation of Bechtel Power Corporation's design and design change control activities. It was concluded that the design change program does contain the required elements of a proper program. Seven findings and 1 unresolved item were issued to address programmatic concerns in the design change process. These findings and unresolved item are being resolved and corrective action provided by project engineering. This activity is scheduled to be completed by October 31, 1984, and will be tracked by the Quality Action Item List.
3. An interface program procedure was added to the project procedure manual (reference attached procedure, Part IV, Section 17, issued April 30, 1984) to review the following:

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1. Bechtel project quality related procedures for consistency at points of interface with each other and interfacing Consumers Power Company's procedures.
2. Potential problems similar to the FCR/FCN interface problem.

This program is currently being implemented in two phases.

The first phase involves investigations of known concerns. Thirty-two areas have been identified that require investigation. The investigation of these 32 areas and their associated corrective actions are scheduled to be completed October 22, 1984. Any additional concerns identified during this phase will be investigated, tracked, and corrected under this program.

The second phase addresses the interface review effort that is currently taking place. Eighty-six quality related processes have been identified by the procedure interface team. Of these, 14 were selected by the procedure interface steering committee for interface review. The last interface review is scheduled to be complete September 4, 1984. All corrective actions are scheduled to be complete December 31, 1984.

Reportability

The conditions described in this report were reported to the NRC by telecon under the rules of 10CFR50.55(e), as reportable on October 22, 1983.

Submitted by:


A.J. Boos

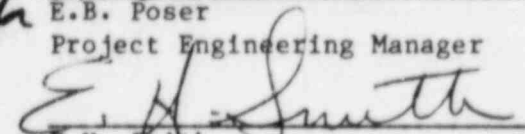
Assistant Project Manager

Approved by:


E.B. Poser

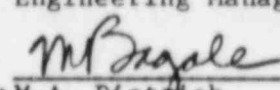
Project Engineering Manager

Approved by:


E.H. Smith

Engineering Manager

Concurrence by:


M.A. Dietrich

Project Quality Assurance Engineer

- Attachments:
1. FCR Form
 2. FCN Form
 3. NCR List
 4. Interface Control for Inter-organizational Processes Procedure

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154088 FIELD CHANGE REQUEST

PAGE 1 OF
FCR NO.

JOB NO. 7220	DRAWING OR SPECIFICATION NO.	SHEET NO.	REV SYM.	ITEM YES <input type="checkbox"/> NO <input type="checkbox"/>	TITLE OF DWG OR SPEC
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CHANGE PROPOSED PCR <input checked="" type="checkbox"/>	PREPARED BY AND DATE	CHANGE APPROVED YES <input type="checkbox"/> NO <input type="checkbox"/>	PE SIGNATURE AND DATE	DISPOSITION OF PCR REQUIRED BY DATE
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REASON FOR CHANGE

EXISTING CONDITION

DESCRIPTION OF CHANGE

INTERIM APPROVAL BY RESIDENT ENGINEER: SIGN _____ DATE _____	AAO CONTACT: DATE _____ NAME _____
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OTHER DWGS OR SPECS AFFECTED	CIVIL	ELECTRICAL	INSTRUMENTATION	MECHANICAL	PIPING	WELDING OR OTHERS
CHECKED BY FIELD LOE						
CHECKED BY PE OR SUPV						

FCR APPROVED YES NO PROJECT ENGINEER SIGNATURE AND DATE _____

REMARKS

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FIELD CHANGE NOTICE

PAGE 1 OF

PCN NO.

JOB NO.	DRAWING OR SPECIFICATION NO.	SHEET NO.	REV SYM.	CITIZEN YES <input type="checkbox"/> NO <input type="checkbox"/>	TITLE OF DWG OR SPEC.
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CHANGE PROPOSED FOR <input type="checkbox"/>	PREPARED BY AND DATE	CHANGE APPROVED YES <input type="checkbox"/> NO <input type="checkbox"/>	PFE SIGNATURE AND DATE
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REASON

EXISTING CONDITION

DESCRIPTION OF CHANGE

OTHER DWGS OR SPACE AFFECTED	CIVIL	ELECTRICAL	INSTRUMENTATION	MECHANICAL	PIPING	WELDING OR OTHERS
CHECKED BY FIELD LDR						
CHECKED BY PE OR SUPV						

FOR <input type="checkbox"/>	APPROVED YES <input type="checkbox"/> NO <input type="checkbox"/>	PROJECT ENGINEER SIGNATURE AND DATE
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REMARKS

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Attachment 3 to MCAR 73

10 NCRs ISSUED

C-00913	H-00113-ZZ
C-00024	H-00134-ZZ
C-00933	H-00135-ZZ
C-00934	H-00175-ZZ
C-00935	H-00176-ZZ

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