

TERA

December 16, 1983

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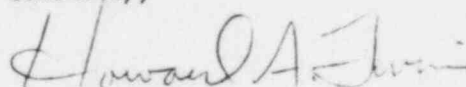
Mr. D. G. Eisenhut
Director, Division of Licensing
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Re: Docket Nos. 50-329 OM, OL and 50-330 OM, OL
Midland Nuclear Plant - Units 1 and 2
Independent Design and Construction Verification (IDCV) Program
Meeting Summary

Dear Sirs:

The fourth meeting on Confirmed Items and Findings was held on November 30, 1983. A summary is provided to document items discussed and actions agreed upon by the participants.

Sincerely,



Howard A. Levin
Project Manager
Midland IDCV Program

cc: See Attached Sheet

Enclosure

HAL/jb

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December 16, 1983

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R. Whitaker, CPC (site)
D. Hood, NRC
J. Taylor, NRC, I&E
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J. Clements, Bechtel
F. Levandoski, B&W
IDCV Program Service List

HAL/jb



TERA CORPORATION

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AND CONSTRUCTION VERIFICATION PROGRAM**

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SUMMARY OF FOURTH MEETING ON CONFIRMED ITEMS AND FINDINGS
NOVEMBER 30, 1983
MIDLAND IDCVP PROGRAM

A meeting was held on November 30, 1983 at Bechtel's Ann Arbor, Michigan offices to obtain additional information related to Confirmed Items identified in the sixth IDCVP Monthly Status Report dated November 15, 1983, and to status other outstanding items identified previously. Attachment 1 identifies the attendees of the meeting which included representatives from TERA, CPC, Bechtel, and NRC. Attachment 2 presents the agenda used for the meeting.

Howard Levin, TERA, opened the meeting with a discussion of the agenda and a summary of the purpose of the meeting. The minimum objective for the meeting was to ensure that all participants gained a complete understanding of the technical issues expressed as Confirmed Items. This is intended to enable Midland project personnel to identify additional information that may have a bearing on the issues at hand. Direct clarification or presentation of additional information by Midland project personnel is also sought so that specific issues may be further dispositioned directly.

The status of outstanding Confirmed Items and Findings was also discussed, including a cursory review of Observations and Resolved Items. A summary of significant aspects of these discussions is provided in Attachment 3 along with any course of action identified. The responsible lead TERA personnel described each item followed by a discussion of either CPC or Bechtel personnel, as appropriate.

The final discussions by the three parties, TERA, CPC, and NRC, focused on programmatic issues. CPC indicates that several constraints had compounded which may make a mid-course correction of the IDCVP desirable. These constraints include the completion status of Midland project, recognition of a schedule delay by CPC, as well as CPC financial considerations. All parties agreed that it was reasonable for the IDCVP to respond to a changed environment. Future discussion in this regard is contemplated.

TERA representatives indicated that alternatives are currently being addressed that will allow the IDCVP to meet defined objectives in a cost and schedule effective manner. To date, the Midland project completion status has impacted the IDCVP, principally in the construction verification area. Most activities in the construction area are on hold indefinitely. The design verification effort is proceeding at approximately an 80-90% pace with the exceptions being in review areas that are affected by Midland design activities which are in progress or revision. An option under consideration is to review the engineering programs that are in place for this 10-20%; thus, enabling completion of the design review.

TERA - IDCVP
FOURTH OCR STATUS REVIEW MEETING
NOVEMBER 30, 1983

<u>NAME</u>	<u>AFFILIATION</u>
ROB BURG	BECHTEL / NUCLEAR
HOWARD LEVIN	TERA CORP.
FRANK DOUGHERTY	TERA CORP.
DON TULODIESKI	TERA CORP.
DOUG WITT	TERA CORP.
Lionel Bates	TERA CORP.
LOU GIBSON	CPCO
CHRIS MORTGAT	TERA CORP.
TED HARRISON	TERA CORP.
RE Whitaker	CPCO IMPACT

AGENDA FOR NOVEMBER 30, 1983 IDCVP MEETING
BECHTEL OFFICES
ANN ARBOR, MICHIGAN

I. Estimated Time

9:00 a.m. - Start
 12:00 p.m. - 12:45 p.m. - Lunch
 3:00 p.m. - Adjournment

II. Discussion of Confirmed Items, Findings, Observations, and Resolved Items

<u>Item</u>	<u>TERA Lead</u>
A. Construction	
• F-049*, F-050*	Tulodieski
• C-091*, C-092*	Tulodieski
• Z-045*, Z-046*, F-047	Tulodieski
• C-055*	Tulodieski
• C-056*	Tulodieski
• C-052, C-053, C-054	Tulodieski
• F-036	Tulodieski
• F-031	Tulodieski
B. Mechanical/Systems	
• C-026*	Dougherty
• C-081*	Dougherty
• F-018*, Z-018*	Dougherty
• R-020*, R-027*, C-005	Dougherty
• C-087*, C-088*, C-089*	Dougherty
• C-038	Dougherty
• C-025	Dougherty
• C-043	Dougherty
• C-048	Dougherty
• B-080*, B-086*, B-090* (only if the project has questions)	Dougherty
• C-084*	Witt
• R-073*	Witt
• C-066, C-074, C-075, C-076	Witt
C. Electrical	
• C-039	Bates
• C-040	Bates
• C-022	Bates

<u>Item</u>	<u>TERA Lead</u>
D. Structural	
o C-015	Mortgat
o C-068	Mortgat
o C-077	Mortgat

III. Discussion of programmatic issues (if necessary)

IV. Discussion of Action Items and Logistics for Information Exchange

V. Adjournment

Notes: 1. Items are grouped to the degree practical to facilitate discussion and minimize manpower requirements during the entire meeting.

2. Items that changed status during the October reporting period are denoted with an asterisk.

ATTACHMENT 3

DISCUSSION OF CONFIRMED ITEMS, FINDINGS, OBSERVATIONS, AND RESOLVED ITEMS

3201-008-F-049

This item is concerned with cable separation. CPC indicated that they recognize this finding as a valid issue, which will be addressed. Bechtel is looking into wrapping of the air line cables. The project's response to this finding will be submitted to TERA for future review.

3201-008-F-050

MPQAD has written a nonconformance report (NCR) on this item. The Midland project uses NCRs to document open items for which final resolution is requested. This does not mean that MPQAD agrees that there is an error; but rather that some clarification is needed. TERA will contact MPQAD for further discussion of this concern, which involves a cable routed vertically through an unscheduled horizontal cable tray.

3201-008-C-091

This confirmed item noted that a lesson plan used for training of personnel for reinspection of piping supports omitted activity 3.4, which involves snubber assemblies. TERA was advised that the lesson plan had been revised and that the project was checking how many snubber inspections had been performed by personnel trained prior to the revision of the lesson plan. TERA will review the revised lesson plan and will evaluate further action needed to disposition this confirmed item.

3201-008-C-092

This confirmed item relates to the method of qualifying inspectors. CPC noted that both the NRC and Stone & Webster had reviewed the qualification procedure and found it acceptable. TERA's confirmed item noted the possibility of the introduction of bias into the testing method. CPC believes that the current procedure is adequate; however, they will provide a response to this confirmed item.

3201-008-Z-045, -046

These two findings have been resolved based upon the issuance of revised maintenance procedures and a nonconformance report. Furthermore, the pump and turbine will be disassembled and inspected in the presence of factory representatives to determine the condition of equipment. TERA will be present to witness the inspection to verify the condition of the pump and turbine.

3201-008-F-047

F-047 is the generic concern about the process by which vendor-recommended storage and maintenance requirements are reflected in project procedures. TERA is currently waiting for the final release of project documents which address this concern. When these documents become available, TERA will review them in order to disposition this item.

3201-008-C-055

TERA's review of WPs and FCRs indicated inconsistencies or gaps in recorded data and information. Bechtel has the action to provide further information for TERA. It was suggested that appropriate personnel meet to discuss the technical details of this item.

3201-008-C-052, -053, -054

CPC indicated that they recognize the issues raised in these confirmed items as being issues which need resolution. The time scale for resolution, however, is uncertain. TERA questioned whether the CCP and/or the QVP review the 321-D forms. CPC indicated that they were uncertain and that they would check and provide the information to TERA in a written response. TERA suggested that the specific items listed in these confirmed items not be reviewed further. What is recommended is for TERA to review the program to address the general issues raised in these confirmed items. This recommendation is made because it has been unclear how it is verified that total vendor submittals have been received. After reviewing the forthcoming program to address the general issue, TERA will take a new sample of components to verify receipt of vendor documentation.

3201-008-C-056

This confirmed item is concerned with material test reports for AFW and SEP components. Bechtel has the action to respond to the specific issues raised by the confirmed item.

3201-008-F-036, -031

TERA is awaiting the receipt of final procedures for FCRs and FCNs. These new procedures have been issued but are not yet implemented. TERA requested copies of the procedures and will review them. Bechtel will provide copies to TERA. (Note: subsequent to the meeting, TERA was provided a copy of Bechtel AAPD Project Engineering Procedure 4.62.1, Rev. 1. The subject of this document is field change requests/field change notices.)

3201-008-F-018, -Z-018

This item represents a finding and its resolution, based upon the receipt of SAR Change Notice 4067 and other information as documented in the finding resolution report. The item was concerned with the method by which decay heat was calculated for the project. Sufficient information has been received to allow resolution. However, observation 3201-008-B-080 was issued to document apparent discrepancies which remain in the B&W interface criteria document for the AFW system.

3201-008-R-020, -R-027, C-005

Sufficient information was obtained to allow resolution of confirmed items number 20 and 27. The update of the FSAR clarifies the information provided and allows resolution of confirmed items 20 and 27. No further action is required for these two items. C-005 is a broader concern about the FSAR update process. TERA has the action to review this process. CPC suggested that TERA contact Nate Leech in CPC's licensing group to obtain information concerning the procedures to control the FSAR.

3201-008-C-038, C-025

TERA indicated that it appears that all information needed to disposition these two confirmed items has been received. No further action is required from the project at this time.

3201-008-C-043

TERA has requested documents M480 and M327, and was advised prior to the meeting that these documents would be available on November 30. After the meeting, TERA obtained these documents and will review them during December.

3201-008-C-048

This item is concerned with qualification of turbine controls for the AFW turbine-driven pump. This confirmed item will remain on hold until the vendor supplies documentation next year.

3201-008-R-073

This item concerns the sizing calculation for the cooling coil for the air handling units in the control room HVAC. Information obtained from Bechtel indicated that the post-LOCA condition was the most limiting for cooling coil sizing. Consequently, this item is considered resolved and the LOCA case will be used in further evaluations of the cooling coil sizing.

3201-008-C-066

This item concerns the alignment of the control room HVAC system following the three-hour pressurization period. Bechtel stated that the design basis was for the HVAC system to have the capability to be realigned to take in outside air; however, this is not an automatic function. The operator is to evaluate the situation and take action appropriate for the circumstances.

3201-008-C-074, C-075, C-076

These three items are concerned with various aspects of the control room HVAC system. TERA stated that sufficient information is now available to allow disposition of all three items. No further action from CPC or Bechtel is required at this time.

3201-008-C-084

This item is concerned with instantaneous versus short-term or time weighted average concentrations of hazardous chemicals. TERA observed that the calculation method used essentially assumes instantaneous mixing of hazardous chemicals, whereas some of the identified hazardous chemicals have lower limits which are not to be exceeded, even instantaneously. Thus, it may be possible for localized areas in the control room to be at a higher concentration than the apparent allowable. The project will review this and respond appropriately.

3201-008-C-085

This item lists several examples of potential problems with calculations. The individual items may be of relatively minor importance; however, TERA's principal concern is that collectively it is difficult to establish the adequacy of the calculational control methods. Bechtel will review the specific issues raised and also consider the collective impact of the concern. TERA stated that the specific issues are considered minor and that its recommendation is to focus on the more general concern.

3201-008-C-026

This item is concerned with a field change request to reduce the design pressure in piping downstream of a flow orifice. The change was made; however, TERA

could not locate calculations to support the change. Bechtel advised that calculations had been performed and were available. It was agreed that TERA and Bechtel personnel would review the calculation outside the meeting in accordance with the procedure for release of calculations to TERA.

3201-008-C-081

This item was concerned with a number of discrepancies in the calculation for RPSA input. Bechtel advised that the calculation which TERA reviewed had been subsequently superseded. It was agreed that TERA and Bechtel personnel would review the calculation subsequent to the meeting in accordance with the procedure to allow release of the calculation to TERA for further review.

3201-008-C-039

Bechtel is working on a response to the items raised in this confirmed item concerning qualification of cable. TERA's concerns are: (1) application of test data for 16 gauge cable to 20 gauge cable, and (2) whether unshielded cable and shielded cable can be qualified on the basis of similarity.

3201-008-C-040

This item is concerned with cable length calculations. TERA stated that sufficient information is currently available, and that no further information is required from Bechtel at this time.

3201-008-C-022

CPC advised that further information concerning the testing procedures for the level control system is now available. TERA stated that it will review any new information and is currently considering alternatives for disposition of this item.

3201-008-C-015

TERA has reviewed Appendix IA of the SMA report. This review indicates that the SMA study does not support the conclusion that flexibility can be neglected. However, review of other sections of the SMA report may provide further information to judge whether other conservatisms in the analysis offset the nonconservative neglecting of floor flexibility. TERA will discuss the SMA report with CPC personnel.

3201-008-C-068

Bechtel advised that a response to this item concerning the qualification analysis for the AFW motor is forthcoming. TERA will review this information when it is received.

3201-008-C-077

Bechtel advised that an amendment to the FSAR is in the process of being distributed. It is believed that this amendment will clarify the concerns raised by TERA. CPC will also provide additional information.

These three items are all concerned with the fire protection program. Bechtel advised that the fire hazards analysis and related fire protection work is currently in progress. It was noted that Bechtel will be upgrading as much of the wall and penetrations as possible to a three hour rating. Bechtel will provide documentation which indicates that the NRC staff has concluded that the water-tight doors to the AFW pump rooms are equivalent to a three hour rating. An exception will have to be taken on the pressure relief panel. The lighting study is being reviewed. Consumers indicated that it was their position that flashlights could be used as a means of providing enough light to allow an operator to move from the control room to the remote shutdown panel. Bechtel further indicated that spurious operation is now being considered as part of the fire evaluation. The revised fire hazards analysis is scheduled to be complete late in 1984. TERA will review any information submitted to disposition these items in the near term. Items not dispositioned shortly or which depend upon the revised fire hazards analysis will be placed on a "hold" status and not reviewed at subsequent OCR meetings until sufficient information is available to allow disposition.