

50-329
50-330

DMB

orig + 3

PRINCIPAL STAFF	
RA*	DEPRP
D/RA	DE
A/RA	DRMSP
RC	DRMA
PAO	SCS
SGA	ML
ENF	File

DOCUMENTATION TRANSMITTAL

To: Stone & Webster - CIO
PO Box 1963
Midland, MI 48640

Transmittal No: CIO- 0034
Date: May 7, 1984

Attention: Don Brown

The documentation listed below ___ is provided herewith, X was previously provided on 5-4-84 & ; as requested by Don Brown .
5-7-84

Documentation Description:

Nonconformance Report C-00804 - 5-4-84
Safety Concern and Reportability Evaluation #53 - 5-7-84

CIO ___ has X has not been placed on routine transmittal for the described documentation.

Janne Kinne
Signature

8405150333 840507
PDR ADOCK 05000329
S PDR

CC RJCook, NRC Site (w/a, unless voluminous)
JJHarrison, NRC Region III (w/a, unless voluminous)
DDJohnson, SMO (w/o)
JGKepler, NRC Region III (w/a, unless voluminous)
BHPeck, SMO (w/o)
NIREichel, SMO (w/o)
RAWells, MPQAD (w/o)
CMThompson - File 24.2 (w/a, unless voluminous)

JEH
MAY 10 1984

MIDLAND PROJECT
QUALITY ASSURANCE
DEPARTMENT

RECORD COPY

NONCONFORMANCE REPORT

ORIGINAL

16 NCR NO.

C-00804

17 DATE ISSUED

10/19/83

18 REV

0

PAGE 1 OF 5

1 ITEM LOCATION

13' 6" W of C/L & 52' 9" N of C/L

2 ITEM DRAWING/PART NO.

3 ITEM PART NAME

4 ITEM SERIAL NO.

M 632 Sh 1 REV 6 7/ PIPE SPOOLS 632-1-9 LINE 26" 2ELB-9 MR-01-9X

5 ITEM DESCRIPTION

VENDOR WELD C ON 26" PIPE SPOOL S 632-1-9

6 ITEM STARTUP SYSTEM NO.

2ABA

7 REFERENCE DOCUMENT

M-481 M-204

8 ASME A.N.I. REQUIRED

☒ YES ☐ NO

9 INSPECTION RECORD NO.

N/A

LOG NO.

N/A

REV NO.

N/A

10 RESPONSIBLE ORGANIZATION

GRINNELL (VENDOR)

11 NONCONFORMANCE DISCOVERED DURING:

☐ DESIGN☐ RECEIVING☒ CONST☐ RELEASE FOR INSPECT☐ POST INSPECT☐ TURNOVER☐ POST TURNOVER☐ PRE-OP
TEST☐ FINAL
TURNOVER☐ OVERINSPECT

12 REQUIREMENT

DRAWING M-481 REV. 24 DCN 52 STATES THAT
26" ELB PIPING SHALL HAVE A MINIMUM WALL
THICKNESS OF .772 AND 26" FITTINGS SHALL
HAVE A MINIMUM WALL THICKNESS OF .896.

13 NONCONFORMANCE

26" PIPE SPOOL S 632-1-9 PART OF LINE
2ELB AT VENDOR WELD C HAS A WALL THICKNESS
OF .863 AND .890. AREA OF VIOLATION IS ON THE
SOUTH SIDE OF PIPE LOCATED
DIRECTLY IN THE CENTER
OF THE WELD CAP AND 1/2 INCH
ADJACENT TO THE CENTER
TOWARDS THE 45° FITTING.

14 NCR ORIGINATED BY (PERSON)

John Low

10-18-83

DATE

15 NCR ORIGINATED BY (DISCIPLINE)

Welding Staff

"CONTINUED
ON PAGE 2"

20 NUMBER OF HOLD TAGS (IF APPLIED)

1

21 LOCATION OF HOLD TAGS

SPOOL S632-1-9 AT F.W. "C"

22 POTENTIAL 50.55(e)

☐ YES☒ NO

24 ACTION ITEM NO.

S03699

26 ITEM PRIORITY CODE NO.

3

28 NCR REVIEWED BY:

Romulo

23 REPORTED TO MPQA MANAGER

DATE

N/A

25 DISCIPLINE:

M

27 TREND CODE

C-2

DATE:

10/19/83

CONTINUED ON REVERSE

F-2M/1A (Rev 1)

29 CAUSE

Weld End preps were counter bored below minimum wall thickness.

30 PROCESS CORRECTIVE ACTION

☒ YES☐ NO

QAR NO. _____

31 RECOMMENDED DISPOSITION

☐ REWORK☐ SCRAP/REJECT☒ REPAIR☐ USE AS IS

32 CONDITIONAL RELEASE

☐ YES☐ NO

31A ADDITIONAL INFORMATION

Project Engineering to Disposition.

PROJECT ENGINEERING DISPOSITION IS ON PG 2 JDA 1/6/84

33 DISTRIBUTION FOR ACTION

N/A

34 DISPOSITION CONCURRENCE

Robert 2/11/84
PROJECT FIELD ENGINEER DATE

Ronald 2/26/84
MPQAD CONCURRENCE DATE

Ronald 2/26/84
PFQCE (ASME) DATE

PQAE (ASME)

DATE

R.C. Hall for E.B. Posey 1-17-84
LEAD DESIGN ORG DATE

CP Co SMO (for turned over systems) DATE

Ronald 2-27-84
A.N.I. (ASME)

DATE

35 DISPOSITION ACTION TAKEN

RECEIVED

DEC 08 1983

Midland Project

M

36 METHOD OF DISPOSITION ACTION VERIFICATION

RESULT OF DISPOSITION ACTION VERIFICATION

☐ ACCEPTABLE☐ UNACCEPTABLEIF UNACCEPTABLE, REFERENCE
SUPERCEDING NCR NUMBER _____

37 NCR CLOSED BY

MPQAD

DATE

A.N.I. (ASME)

DATE

MIDLAND PROJECT
QUALITY ASSURANCE
DEPARTMENT

RECORD COPY
NONCONFORMANCE REPORT
CONTINUATION SHEET

NCR NO.

C-00804

DATE ISSUED

10/19/83

REV

0

PAGE 2 OF 5

ORIGINAL

SEE ATTACHED ULTRASONIC THICKNESS MEASUREMENT
TEST REPORT AND ITT GRINNELL INDUSTRIAL
PIPING INC. SKETCH.

BLOCK 31A

THE AREAS OF SHOPWELD ON SPOOL 2ELB-9-S-632-1-9 IDENTIFIED AS
VIOLATING THE 0.896 MINIMUM WALL THICKNESS SHALL BE BUILT UP BY WELDING
TO THE REQUIRED THICKNESS. WELD BUILDUP SHALL BE TREATED AS A REPAIR
OF THE WELD. WELD PROCEDURE SHALL BE P1-AT-L6 (CVN). NO
POST WELD HEAT TREATMENT IS REQUIRED. THE REPAIRED AREA SHALL
BE RADIOGRAPHED IN ACCORDANCE WITH RT-ASME AFTER WELDING

RESP ENGR

J.O. Abel 1/16/84

GROUP SUPER

D. P. Hill / T.C. RALLI 1-16-87

QE

Construction Testing

FOSTER CITY - 1744 COUNCIL BLVD. STE. 1700, Foster City, CA 94404, (415) 875-1000

PAGE 3 of 5

NCR# C-00804

RECORD COPY

ULTRASONIC THICKNESS MEASUREMENT
TEST REPORT - 010101

ORIGINAL

CUSTOMER Bechtel Power Corporation		4-21-83	
ADDRESS P.O. Box 2167 Midland, MI 48640		CONTROL NO. OR REPORT NO. 332 57	
JOB OR PROJECT LOCATION Midland Nuclear Power Project		P.O. NO. 7220-FSC-206	
SYSTEM 2ELB-9		TYPE OF MATERIAL C/S	
ACCEPTANCE STANDARD N/A		N.D.T. PROCEDURE NO. IP-UT-452-6843 rev 1	

ULTRASONIC EXAMINATION

EQUIPMENT	BPC C-45	CALIBRATION RANGE	TRANSDUCER (SIZE & FREQ.)	
DM-2	1492	.75 " to 1.5 "	.25 " DIA	5 MHz

[illegible]

* THIS UT REPORT 33257 STATES
WELD NUMBER AS FW N. THIS
N DESIGNATION WAS USED FOR
FIELD ENGINEERING USE ONLY.
THE WELD IN QUESTION IS VENDOR
WELD C ON ITT GRINNELL 2ELB-9
GEO CONSTRUCT

Technician J. S. Reed SNT-TC-1A II
Level
Asst. Technician Tom Chmura
Customer W. Maycheck 4/11
Witnessed by DE Halckman MPQAD 4-21-83
SIGNATURE

ENCLOSURE ADDED
Yes ☒ No ☐

Page 1 of 2

GEO CONSTRUCTION TESTING

assumes no responsibility for losses of any kind due to interpretation

SYSTEM NUMBER M632-9 2ELB-9

WELD DESIGNATION N

NOMINAL WALL THICKNESS .935

PIPE DIAMETER 26"

CALIBRATION RANGE .75 - 1.5

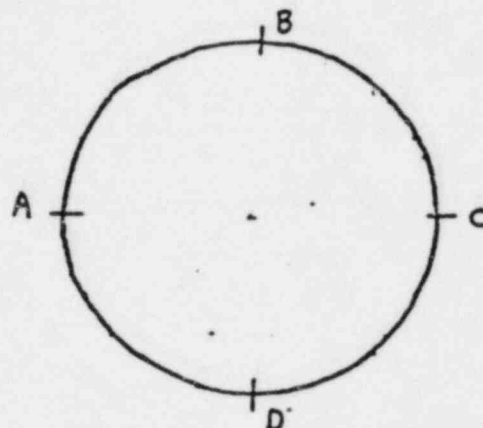
PAGE 4 of 5

NCR# C-00804

RECORD COPY

ORIGINAL

← NORTH



CENTER OF WELD

	1	2	3	4	5	6	7
A	1.15	1.12	1.05	1.00	.933	.894	.910
B	1.15	1.05	1.01	.990	1.01	1.01	1.02
C	1.08	.959	.890	.863	.927	1.00	1.02
D	1.29	1.28	1.26	1.17	1.08	1.00	.984

REMARKS -

#1 THRU #7 →
DIRECTION OF FLOW

ITT Grinnell Industrial Piping Inc.

KERNERSVILLE, N. C.

RECORD COPY

C.D. NO. 7093

NAME CONSUMERS POWER COMPANY

LOCATION MIDLAND, MICHIGAN

MAR 28 1977
BECHTEL POWER CORP.
JOB 7220

REDW'N

REV.

REV.

CHK'D 92-23-

CHK'D

CHK'D

CHK'D

ORIGINAL

UNCONTROLLED
NOT TO BE USED
FOR CONSTRUCTION

PER

27-9 15/16

22-8 5/16

5-1 7/8

21-4 5/16

FEB 23 1977

PAINT - CARBON ZINC

SUPPLIER DRAWING REVIEW

☒ Approved - May issue drawing

☐ Approved - Subject to change - May issue drawing

☐ Additional conditions to be met - May issue drawing and subject to change - May issue drawing

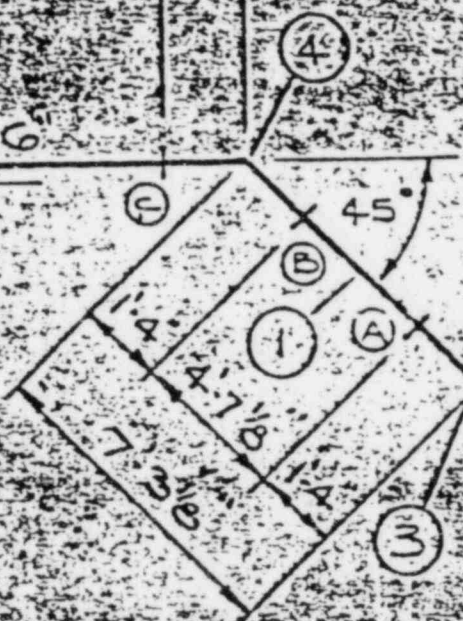
☐ Not approved - Cannot issue drawing

☐ Approved for use - May issue drawing

☐ Information Only

REWORKED *5/11/77*

REWORKED FOR *5/11/77*



PIPING CODES

DISTRIBUTION

JOB 7220

GENERAL

CLIENT

FIELD

RECH

INSV

NON EX

RECORD

BECHTEL

PIPE: .935" M.W. SA-155 KCF-70 CL I

FITT: .935" M.W. SA-420 WPLGW

INSERTS: .935" M.W. CONS. "C" = 24.109"

ASME CODE APPROVED

PAINT SIZE AND NO. OF SILICA GEL
BAGS ON EXTERIOR

ENDS MATCH PER SK#

MP-D-1

SILICA GEL LINERS

Sub 2

CARSON STEEL

CLASS Nuc. CL. 2

LINE SPEC

2 ELP

APP. CODE

ASME SEC III

NO. REQ'D

1

Radiography (RT)	<input checked="" type="checkbox"/>	Special Marking	<input checked="" type="checkbox"/>	Pre-heat	<input checked="" type="checkbox"/>	Cert. of Compliance	<input checked="" type="checkbox"/>
Particle (MT)	<input checked="" type="checkbox"/>	Special Cleaning	<input checked="" type="checkbox"/>	Heat Treat	<input checked="" type="checkbox"/>	Mill Test Reports	<input checked="" type="checkbox"/>
Liq. Penetrant (PT)	<input checked="" type="checkbox"/>	Painting	<input checked="" type="checkbox"/>	Code Stamp	<input checked="" type="checkbox"/>	Data Reports	<input checked="" type="checkbox"/>

SYSTEM MAIN STN. & TURB. STN.FAB. SPECS. FG-10 IN SS-KV-19REF. DRWG NO. M-652 SHT. 1PRESS. 104 PSIG TEMP. 640 °F. WT. 8919 LBS.

2 ELP-9-C-632-1-9

REGISTERED MR-01-9X

Priority: 4

Trend Code: K-9

SU/S: ABA & ABB, 1&2

AI# S1574



Consumers
Power
Company
QA69-0

SAFETY CONCERN AND REPORTABILITY EVALUATION

PROJECTS, ENGINEERING
AND CONSTRUCTION -
QUALITY ASSURANCE DEPARTMENT

PAGE 1

4. HOW WAS CONCERN IDENTIFIED, WHEN, WHERE?

Thursday, June 10, 1982 during MPQAD DQAE audit
of Mechanical Design Calculations, Audit No M01-212-2.

TO MANAGER-MPQA

1. FROM: SMehta
ORGANIZATION: DQAE

SCORE NO: 53
FILE NO: 15.1
DATE RECEIVED: 6/17/82

2. IS CONCERN A PART 21?
WHEN? ☐ YES ☒ NO
BY WHOM?

3. IS NRC AWARE OF THIS?
WHEN? ☐ YES ☒ NO
BY WHOM?

(CONTINUE ON NEXT PAGE)

5. BRIEF DESCRIPTION OF CONCERN - SYSTEM, COMPONENT, ACTIVITY, POSSIBLE SAFETY IMPACT - (ATTACH SUPPORTING DOCUMENTS).

Calculation FM-5003-11(Q) Rev 5 for the determination of minimum wall thickness requirements of Piping Class ELB utilizes material with allowable stress of 17,500 psi. Piping Class Sheet ELB specifies fittings for which the allowable stress is 15,000 psi. No calculation was performed to show the adequacy of the fittings for the intended use.

There is a concern that the specified fittings may not be suitable for this design. Evaluate safety impact, if any. Also review other Bechtel calculations of this type to see if similar problems have occurred.

(CONTINUE ON NEXT PAGE)

6. IMMEDIATE REPORTABILITY EVALUATION:

- a. ☐ REPORTABLE - GO TO 13
b. ☐ POTENTIALLY REPORTABLE - GO TO 13
c. ☒ NOT REPORTABLE, FURTHER EVALUATION
d. ☐ NOT REPORTABLE

7. ORGANIZATION RESPONSIBLE FOR FURTHER EVALUATION:

Bechtel Project Engineering

8. FINAL REPORTABILITY EVALUATION (IF 6.c. CHECKED):

- a. ☐ REPORTABLE b. ☐ NOT REPORTABLE

9. QA APPROVAL OF EVALUATION OF BLOCKS 1 TO 7:

MANAGER - MPQA

6/23/82
DATE

10. JUSTIFICATION OF EVALUATION - (ATTACH SUPPORTING DOCUMENTS)

It is currently felt that minimum wall thickness specified has been exceeded by the manufacturer. Bechtel is reviewing the Material Specification to determine whether this is an actual problem or just a paper problem, from a safety standpoint.

(CONTINUE ON NEXT PAGE)

11. EVALUATOR'S SIGNATURE/DATE:

David D. Perry 6/23/82

12. FINAL QA APPROVAL - MANAGER MPQA/DATE:

13. NRC NOTIFICATION: HOW?

DATE:

TIME:

INDIVIDUAL NOTIFIED:



Consumers
Power
Company
QA70-0

SAFETY CONCERN AND REPORTABILITY EVALUATION

PROJECTS, ENGINEERING
AND CONSTRUCTION -
QUALITY ASSURANCE DEPARTMENT
SCRE NO: 53
PAGE 2

4. CONTINUED

5. CONTINUED

10. CONTINUED

14. MINIMUM DISTRIBUTION:

VICE PRESIDENT - PE&C
VICE PRESIDENT - MIDLAND PROJECT
DIRECTOR - ENVIRONMENTAL SERVICES & QA
MIDLAND SITE MANAGER
SITE QA SUPERINTENDENT
MANAGER - SAFETY & LICENSING
MIDLAND FILE NO 15.1

15. ADDITIONAL DISTRIBUTION:

LHCurtis	RCBauman
EMHughes	DTPerry
BPKononetz	JEBrunner
RCHollar	MADietrich
TGBallweg	GREagle
JARutgers	BJCole



CONSUMERS POWER

PROCESS, ENGINEERING AND CONSTRUCTION
QUALITY ASSURANCE DEPARTMENT
DOCUMENT TRANSMITTAL FORM

File: 15.1
Date: 6/8/83

Name: A. H. BARKER
 Date: 6-24-83

[illegible]

These review the following documents. Note any comments, initials, date and return this form to indicate completion of review.

Documents :

DRAFT BICHTER RESPONSE TO SCORE 53

Ref Date

Comments:

THIS DRAFT BECHTEL RESPONSE INDICATES THAT THE SCRS S3 CONCERN WOULD NOT HAVE AFFECTED PLANT SAFETY. PLEASE EVALUATE FOR SCRS S3 CLOSEOUT. IF SIGNIFICANT CHANGES HAVE TAKEN PLACE, THE APPROVED SAFETY EVALUATION WILL BE RETRANSMITTED ~~FOR~~ FOR REVIEW WHEN RECEIVED FROM BECHTEL.

To E.M. Hughes Date
Subject Midland Plant Units 1 and 2 From T.G. Ballweg
Bechtel Job 7220
MAIN STEAM LINE FITTING MATERIAL Of Mechanical Engineering
SCRE 53 SAFETY EVALUATION
Copies to Copy Distribution At Ann Arbor
File M-104 PR w/a

References: A) BEBC-6817, 10/26/82 (Com 91416)
B) BCBE-4702, 12/23/82 (Com 99446)
C) BCBE-5051, 4/28/83 (Com 114036)

This is to advise you of a potential safety concern with the wall thickness calculations for several classes of carbon steel nuclear service piping 26-inches and larger in use at the Midland plant. Nuclear service piping is piping designed to the requirements of Section III of the ASME Boiler and Pressure Vessel Code. In addition, this memorandum documents the safety-related basis that should be used in conjunction with a significance analysis, to be done by others, to determine whether this condition is reportable under the criteria contained in 10 CFR 50.55(e). This concern has been identified by Consumers Power Company as Safety Concern and Reportability Evaluation (SCRE) 53.

Potential Safety Concern

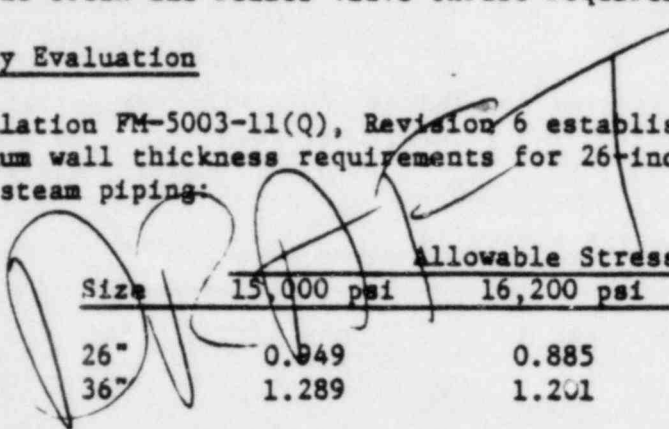
A review of the piping class sheets, Drawing 7220-M-481(Q), Revision 20, indicates that for many carbon steel nuclear service piping classes in sizes 26-inches and larger, the material specified for fittings may be of lower strength (allowable stress) than the material specified for the pipe. For carbon steel nuclear service piping in sizes 24-inches and smaller, and for all sizes of stainless steel nuclear service piping, the fittings specified have an allowable stress equal to or greater than that of the specified pipe. The pressure design wall thickness calculations, performed as required by ASME III 1971 S73 NB, NC, ND 3641, were based on the allowable stress of the pipe. Therefore, the calculated required wall thickness for pressure design for the pipe could result in overstress of the fittings for those cases where the fittings are of a material with lower allowable stress than the pipe.

The 26-inch and larger pipe and fitting materials specified for carbon steel nuclear pipe classes, along with pressure design calculation and allowable stress information, are tabulated on the attached list. From the list it can be seen that the ELB pipe class is the only one which requires further consideration. The lines affected are the main steam lines inside containment from the steam generator nozzles up to the containment penetration flued heads.

The lines are identified as 1ELB-9, -10, -11, and 12 and 2ELB-9, -10, -11, and -12. The nominal sizes of these lines are 26-inches and 36-inches. The ELB lines outside containment are not of concern because of their 2-3/8-inch nominal wall thickness, specified to meet no-break and relief valve thrust requirements.

Safety Evaluation

Calculation FM-5003-11(Q), Revision 6 establishes the following minimum wall thickness requirements for 26-inches and 36-inches ELB main steam piping:



Size	Allowable Stress		
	15,000 psi	16,200 psi	17,500 psi
26"	0.949	0.885	0.825
36"	1.289	1.201	1.118

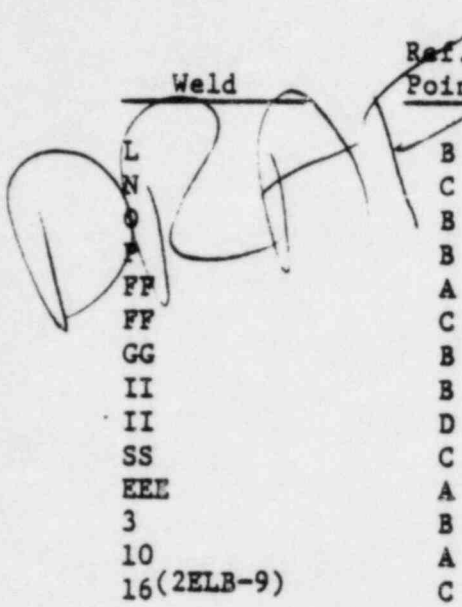
The wall thicknesses shown above are the minimum requirements for adequate thickness for the different materials used. The piping (pipe and fittings) was fabricated by ITT Grinnell under Purchase Order 7220-M104A(Q) to minimum wall thickness requirements of 0.935-inch for the 26-inch size and 1.267-inch for the 36-inch size, based on Revision 9 of the Piping Class Sheets 7220-M-481(Q). Thus, for all except the 15,000 psi material, the wall thickness will be adequate.

A program of measurement of the thickness at butt welds on the main steam lines inside containment has been initiated (Reference A). The butt welds are being measured because the counterbore at the weld end preparation (reference Drawing 7220-M-473) makes this the thinnest part of the installed piping system. If adequate thickness exists at the welds, the remainder of the fitting will be acceptable as well. The test thickness requirements have been adjusted upward to reflect a 1% tolerance in the testing procedure (reference IP-UT-452 in accordance with ASME V, Article 5, Paragraph T-55, 1974S76). This adjustment establishes the following minimum test requirements:

Size	Allowable Stress		
	15,000 psi	16,200 psi	17,500 psi
26"	0.959	0.894	0.834
36"	1.303	1.214	1.130

Eighty-six welds out of approximately 160 have been measured. Measurements taken to date (References B and C) indicate adequate wall thickness except for the following welds, where the thickness at a point in the circumference is below the minimum:

P&ID M-632, Sheet 1 (2ELB-9 and 10)



Weld	Ref. Point	Maximum Negative Variance	Average Variance (Along Length)
L	B	-.005"	+.061"
N	C	-.096"	+.003"
O	B	-.023"	+.133"
P	B	-.010"	+.088"
FF	A	-.025"	+.030"
FF	C	-.037"	+.039"
GG	B	-.005"	+.047"
II	B	-.033"	+.038"
II	D	-.026"	+.034"
SS	C	-.043"	+.097"
EEE	A	-.023"	+.091"
3	B	-.004"	+.056"
10	A	-.002"	+.046"
16(2ELB-9)	C	-.010"	+.063"

Note that the average variance along the pipe axis at each circumferential point is positive.

The program of measurement will be continued to assure that adequate wall thickness exists throughout the main steam piping inside containment. All areas which do not have adequate wall thickness will be buildup as required to meet the appropriate thickness.

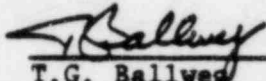
Based on the counterbore dimensions, the pipe outside diameter, and the applicable tolerances, the pipe hoop stress will be 17,500 psi at the counterbore when operating at the design pressure of 1050 psig. This represents 117% of the allowable stress for 15,000 psi material. Similarly, when operating at the maximum pressure of 1155 psig, the hoop stress is 20,000 psi, 133% of the allowable stress. Because the minimum yield strength of this material is 32,000 psi, this would not be expected to cause failure of the pipe in service. The stress analysis of these lines has been reviewed. In no case is the longitudinal stress in the fittings greater than the 15,000 psi allowable stress.

The case in question is a combination of stresses in perpendicular planes, hoop, and longitudinal. Torsional stresses have been considered negligible. Mathematical stress analysis shows that under these conditions there is no point in the body under greater stress than the greater of the two stresses. The maximum stress at any given point in the main steam line pipes, then, is 20,000 psi.

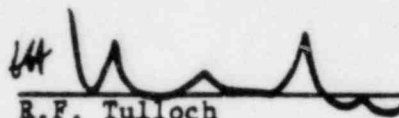
Conclusion

When operating at the design rating of 1050 psig, portions of the 26-inch and 36-inch main steam piping inside containment may be slightly stressed beyond ASME III allowables for pressure hoop stress. It would not be expected to fail in service, because the yield strength of the material is more than double the allowable stress. Measurements at the jobsite may indicate that weld buildup is required to meet ASME III requirements, but the safe operation of the Midland plant would not be compromised by this condition.

Prepared by:

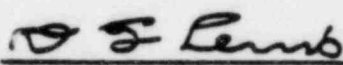

T.G. Ballweg

Mechanical Group Supervisor


R.F. Tulloch

Plant Design Group Supervisor

Concurrence by:


D.F. Lewis

Assistant Project Engineer

M.T. Fravel

Chief Mechanical Engineer

R.L. Loos

Chief Nuclear Engineer



CONSUMERS POWER

PROJECTS, ENGINEERING AND CONSTRUCTION
QUALITY ASSURANCE DEPARTMENT
DOCUMENT TRANSMITTAL FORM

File: 1511
Date: 4/21/83

Return To: H.H. BATHEN
By Date: NOT REQ'D

#Comment Information	Separate Copy(ies) To:	Initial & Date	#Comment Information	Routing Copy To:	Initial & Date
<input checked="" type="checkbox"/> G.F. BAGLE					
<input checked="" type="checkbox"/> D.T. PERRY					
<input checked="" type="checkbox"/> L.R. JESSMORE					
<input checked="" type="checkbox"/> QA FILE (ORIGINAL)					
<div style="display: flex; justify-content: space-between;"> <div> <p>RECEIVED</p> <p>APR 26 1983</p> <p>FIELD QUALITY ASSURANCE MIDLAND, MICHIGAN</p> </div> <div> <p>16.2</p> </div> <div> <p>MLC</p> </div> </div>					

Please review the following documents. Note any comments, initial, date and return this form to indicate completion of review.

Documents:

BECHTEL RESPONSE TO SCRS S3 (MAD-2249)

REV Date
4/19/83

Comments:

PSR UPDATE QUAAL

Bechtel Power Corporation

Post Office Box 2167
Midland, Michigan 48640



April 14, 1983

Consumers Power Company
1945 West Parnall Road
Jackson, MI 49201

Attention: W.R. Bird

Job 7220 Midland Project
SCRE 53 AI S-1574
PARTIAL RESPONSE
MAD-2249

Dear Mr. Bird:

The following is Project Engineering's partial response to the subject SCRE.

Comments on the draft safety evaluation for the subject SCRE 53 have been received and are being incorporated into the document. A re-forecast date for further response is set for 5/4/83.

If you have any questions regarding the above, please contact Al Bock at Ext. 7649 of Quality Engineering.

Very truly yours,

A handwritten signature in cursive script, reading "M.A. Dietrich".

Marion A. Dietrich
Project Quality Assurance
Engineer

MAD/lcp

CC: D.B. Miller (Site)
R.A. Wells (Site)
J.L. Wood (Jackson)



Bechtel Power Corporation



Post Office Box 2167
Midland, Michigan 48640

March 12, 1983

Consumers Power Company
1945 West Parnall Road
Jackson, MI 49201

Attention: W.R. Bird

Job 7220 Midland Project
SCRE 53 AI S-1574
PARTIAL RESPONSE
MAD-2227

Dear Mr. Bird:

The following is Project Engineering's partial response to the subject SCRE.

Comments on the draft safety evaluation for the subject SCRE have been received and are being incorporated into the document. A reforecast date for further response is 4/7/83.

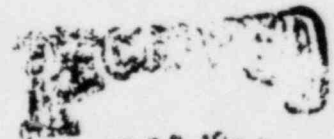
If you have any questions regarding the above, please contact Al Bock, QE, at extension 7649.

Very truly yours,

Marion A. Dietrich
Project Quality Assurance
Engineer

MAD/lcp

CC: D.B. Miller (Site)
R.A. Wells (Site)
J.L. Wood (Jackson)



MAR 16 1983

QUALITY ASSURANCE

Bechtel Power Corporation

Post Office Box 2167
Midland, Michigan 48640



February 16, 1983

Consumers Power Company
1945 West Parnall Road
Jackson, MI 49201

Attention: W.R. Bird

Job 722Q Midland Project
SCRE 53 AI: S-1574
PARTIAL RESPONSE
MAD-2215

Dear Mr. Bird:

This is a Project Engineering partial response.

Presently, the draft of the Safety Evaluation for the subject SCRE 53 is in the coordination cycle. Finalization of this Safety Evaluation is anticipated to be complete by 2/20/83. Therefore, the forecast date for further response is 2/28/83.

If further assistance and/or clarification is necessary, please contact Al Bock at Ext. 7649 of the Ann Arbor office, Quality Engineering.

M.A. Dietrich
Marion A. Dietrich
Project Quality Assurance
Engineer

MAD/lcp

CC: D.B. Miller (Site)
R.A. Wells (MPQAD)
J.L. Wood (Jackson)

RECEIVED
FEB 17 1983

FIELD QUALITY ASSURANCE
MIDLAND, MICHIGAN

	ORIGINAL	PRINTS
SECTION		
INFO	LRT	FLC
ROUTE		
FILE	16.0	
COPIES SENT AS ADDRESSED		



Consumers Power

PROJECTS, ENGINEERING AND CONSTRUCTION
QUALITY ASSURANCE DEPARTMENT
DOCUMENT TRANSMITTAL FORM

File: 15.1
Date: 12/23/82

CONSUMER POWER COMPANY

Return To: A.H. BARRON
By Date: NOT RECD

RECEIVED
DEC 28 1982

#Comment Information	Separate Copy(ies) To:	Initial & Date	#Comment Information	ROUTED QUALITY ASSURANCE MIDLAND, MICHIGAN	Routing Copy To:	Initial & Date
<input checked="" type="checkbox"/>	X G.R. EAGLE					
<input checked="" type="checkbox"/>	X D.T. KERRY					
<input checked="" type="checkbox"/>	X B.J. COLE					
<input checked="" type="checkbox"/>	X QA FILE (ORIG.)					

Please review the following documents. Note any comments, initial, date and return this form to indicate completion of review.

Documents:	Rev	Date
<u>PARTIAL BECHTEL RESPONSE TO SCRs 53</u>	---	<u>12/16</u>
<u>(MAD -2190)</u>	---	---
<u>51574</u>	---	---

Comments: BARB - NO NEED TO UPDATE QUA TL

[Handwritten signature]

Bechtel Power Corporation

Post Office Box 2167
Midland, Michigan 48640

December 16, 1982



Consumers Power Company
1945 West Parnall Road
Jackson, MI 49201

Attention: W.R. Bird

Job 7220 Midland Project
PIPING CLASS ELB FITTINGS
PARTIAL RESPONSE SCRE 53
MAD-2190

Dear Mr. Bird:

Enclosed is Project Engineering's partial response to the concern documented in Consumers Power Company's Safety Concern and Reportability Evaluation No. 53.

If you have any questions concerning the above, please contact this office.

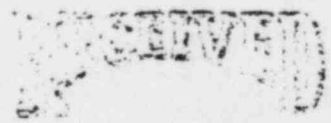
Very truly yours,

A handwritten signature in cursive script that reads "M.A. Dietrich".
Marion A. Dietrich
Project Quality Assurance
Engineer

MAD/lcp

Enc: IOM E.M. Hughes to M. Dietrich dated December 7, 1982
Com 096922

cc: D.B. Miller (Site) w/o
R.A. Wells (Site) w/a
J.L. Wood (JSC) w/o



DEC 28 1982

QUALITY ASSURANCE

Inter-office Memorandum

Date December 7, 1982

From E.M. Hughes

Of Engineering

At Ann Arbor

If further assistance and/or clarification is necessary, please contact Al Bock at extension 7649 of Quality Engineering.

R.C. Hollen for
E.M. Hughes
Ann Arbor Project Engineer

Com Use: Partially Closes Com 075636

Job Title 549 12/9/82
Log No. 549 File No. _____
Response Recd. _____ Date _____
QA Action Item No. _____

Route	Time	Comment
POAE		
Rel. Cor.		
Rel. (1)		
Rel. (2)		
Rel. (3)		
Rel. (4)		
Rel. (5)		
Rel. (6)		
Rel. (7)		
Rel. (8)		
Rel. (9)		
Rel. (10)		
Rel. (11)		
Rel. (12)		
Rel. (13)		
Rel. (14)		
Rel. (15)		
Rel. (16)		
Rel. (17)		
Rel. (18)		
Rel. (19)		
Rel. (20)		

Bechtel Power Corporation

Post Office Box 2167
Midland, Michigan 48640



October 28, 1982

Consumers Power Company
1945 West Parnall Road
Jackson, MI 49201

Attention: W.R. Bird

Job 7220 Midland Project
PIPING CLASS ELB FITTINGS
SCRE 53 PARTIAL RESPONSE
MAD-2166

Dear Mr. Bird:

Enclosed is Project Engineering's partial response regarding the concern documented on Consumers Power Company's Safety Concern and Reportability Evaluation No. 53.

If you have further questions concerning the above, please contact me at Ext. 207/382.

Very truly yours,

A handwritten signature in cursive script, reading "M.A. Dietrich".
Marion A. Dietrich
Project Quality Assurance
Engineer

MAD/lcp

Enc: SCRE 53 - Partial Response

cc: B.W. Marguglio (JSC) w/a
D.B. Miller (Site) w/o
J.L. Wood (JSC) w/o

RECEIVED

NOV 3 1982

QUALITY ASSURANCE

SAFETY CONCERN AND REPORTABILITY EVALUATION

PROJECTS, DESIGNING
AND CONSTRUCTION -
QUALITY ASSURANCE DEPARTMENT

PAGE 1

HOW WAS CONCERN IDENTIFIED, WHEN, WHERE? / 5036

Thursday, June 10, 1982 during MPQAD DQAE audit
of Mechanical Design Calculations, Audit No M01-212-2.

TO: ~~M. D. DICKSON~~
FROM: E.M. HUGHES

TO MANAGER-MPQA

1. FROM: S Mehta
ORGANIZATION: DQAE

SCORE NO: 53
FILE NO: 15.1
DATE RECEIVED: 6/17/82

2. IS CONCERN A PART 21?
WHEN? ☐ YES ☒ NO
BY WHOM?

3. IS NRC AWARE OF THIS?
WHEN? ☐ YES ☒ NO
BY WHOM?

(CONTINUE ON NEXT PAGE)

BRIEF DESCRIPTION OF CONCERN - SYSTEM, COMPONENT, ACTIVITY, POSSIBLE SAFETY IMPACT -
(ATTACH SUPPORTING DOCUMENTS).

Calculation FM-5003-11(Q) Rev 5 for the determination of minimum wall thickness requirements of Piping Class ELB utilizes material with allowable stress of 17,500 psi. Piping Class Sheet ELB specifies fittings for which the allowable stress is 15,000 psi. No calculation was performed to show the adequacy of the fittings for the intended use.

There is a concern that the specified fittings may not be suitable for this design. Evaluate safety impact, if any. Also review other Bechtel calculations of this type to see if similar problems have occurred.

(CONTINUE ON NEXT PAGE)

IMMEDIATE REPORTABILITY EVALUATION:

- ☐ REPORTABLE - GO TO 13
☐ POTENTIALLY REPORTABLE - GO TO 13
☒ NOT REPORTABLE, FURTHER EVALUATION
☐ NOT REPORTABLE

7. ORGANIZATION RESPONSIBLE FOR FURTHER
EVALUATION:

Bechtel Project Engineering

8. FINAL REPORTABILITY EVALUATION
(IF 6.c. CHECKED):

a. ☐ REPORTABLE b. ☐ NOT REPORTABLE

QA APPROVAL OF EVALUATION
OF BLOCKS 1 TO 7:

MANAGER - MPQA

6/23/82
DATE

JUSTIFICATION OF EVALUATION - (ATTACH SUPPORTING DOCUMENTS)

It is currently felt that minimum wall thickness specified has been exceeded by the manufacturer. Bechtel is reviewing the Material Specification to determine whether this is an actual problem or just a paper problem, from a safety standpoint.

SEE THE ATTACHED SHEET FOR A PARTIAL RESPONSE TO THE SUBJECT SCORE.

Reforecast date set as 11-19-82.

(CONTINUE ON NEXT PAGE)

EVALUATOR'S SIGNATURE/DATE:

David D. Perry 6/23/82

12. FINAL QA APPROVAL - MANAGER MPQA/DATE:

NRC NOTIFICATION: HOW?

DATE:

TIME:

INDIVIDUAL NOTIFIED:

421

If further assistance and/or clarification is necessary, please contact Al Bock at extension 7649 of Quality Engineering.

10-16 82

[illegible]



Consumers
Power
Company

General Offices: 1945 West Parnell Road, Jackson, MI 49201 • (517) 788-0550

June 21, 1982

Mr E M Hughes
Bechtel Power Corporation
PO Box 1000
Ann Arbor, MI 48106

MIDLAND PROJECT -
SCRE 53
FILE: 15.1 SERIAL: 17526

Attached is SCRE-53 concerning allowable stress calculations for Piping Class ELB fittings for the determination of minimum wall thickness requirements. Bechtel Project Engineering is requested to evaluate this SCRE under the criteria of 10CFR50.55(e) and to submit a formal recommendation to Consumers Power Company by July 17, 1982.

W R Bird

W R Bird
Manager of Quality Assurance
Midland Project

WRB/lr

CC: JWCook
BWMarguglio
DBMiller
MLCurland
TJSullivan
LHCurtis
BPKononetz
RCHollar
TGBallweg

JARutgers
RCBauman
DTPerry
JEBrunner
MADietrich
GREagle
BJCole

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