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Vice President  
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(419) 259-5221

Docket No. 50-346  
\*License No. NPF-3  
Serial No. 1-95

October 19, 1979

Mr. James G. Keppler  
Regional Director, Region III  
Office of Inspection & Enforcement  
U.S. Nuclear Regulatory Commission  
799 Roosevelt Road  
Glen Ellyn, Illinois 60137

Dear Mr. Keppler:

IE Bulletin No. 79-14, dated July 2, 1979, requested that we develop and implement an inspection program to verify that the Davis-Besse Nuclear Power Station Unit 1 seismic analysis input of safety related piping systems conforms to the actual field conditions.

Our inspection of normally accessible safety related piping was completed September 21, 1979. Discrepancies found during the inspection were reviewed in accordance with the guidance provided in Supplement Nos. 1 and 2 to IE Bulletin 79-14. On October 1, 1979 we submitted to you the results of our detailed engineering reviews for approximately 50% of the field inspection packages. Attached is our detailed engineering reviews for all remaining field inspection packages. These reviews indicate that none of the discrepancies found during the inspection of accessible safety related piping affect system operability. Our schedule for follow-on analytical work required under Item 4B of the bulletin to support the results is also attached.

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Based on favorable results of the completed detailed engineering reviews of our inspection of accessible safety related piping, we have established a high degree of confidence that Davis-Besse's seismic analysis acceptably conforms to the as-built safety related systems. Therefore, as proposed in our letter of August 1, 1979 (Serial No. 1-81), Toledo Edison will delay the inspection of normally inaccessible piping systems until the spring outage currently scheduled to begin March 1980.

Yours very truly,



RPC:CLM

Attachments

bj a/7

cc:

U. S. Nuclear Regulatory Commission  
Office of Inspection & Enforcement  
Division of Reactor Operations Inspection  
Washington, D.C. 20005

U.S. Nuclear Regulatory Commission  
Office of Nuclear Reactor Regulation  
Division of Operating Reactors  
Washington, D.C. 20555

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Seismic Analysis For As-Built  
Safety Related Piping Systems

Response to NRC IE Bulletin No. 79-14

Davis-Besse Nuclear Power Station Unit 1

I. Introduction

NRC IE Bulletin 79-14, dated July 2, 1979, Revision 1, dated July 18, 1979, Supplement 1, dated August 15, 1979, and Supplement 2, dated September 7, 1979, require all power reactor facility licensees to verify that the seismic analysis of safety-related piping systems applies to the actual as-built configuration of systems. The action items identified in the bulletin apply to all safety-related piping, 2-1/2 inches in diameter and greater, and to Seismic Category I piping, regardless of size, which was analyzed by computer.

The response to Item 1 of the bulletin was submitted on August 1, 1979 (Serial No. 1-81). A partial response to Item 2 of the bulletin, describing the inspection procedures and discrepancies reviewed prior to September 30, 1979 for normally accessible piping systems, as defined by the bulletin, was submitted on October 1, 1979 (Serial No. 1-93). This report provides a complete response to Item 2 of the bulletin and for the normally accessible piping that has been inspected, it provides a response to Item 4 of the bulletin.

II. Action Item 2

For portions of systems which are normally accessible, inspect one system in each set of redundant systems and all non-redundant systems for conformance to the seismic analysis input information set forth in design documents. Include in the inspection: piping run geometry; support and restraint design, locations, function and clearance (including floor and wall penetration); embedments (excluding those covered in IE Bulletin 79-02); pipe attachments; valve and valve operator locations and weights (excluding those covered in IE Bulletin 79-04). Within 60 days of the date of this bulletin, submit a description of the results of this inspection.

III. Response

Inspection of all normally accessible safety-related piping as defined in the bulletin, including both redundant trains, was performed as described in our response to Item 1 of the bulletin. The inspection teams began the walkdown inspections at the site on July 30, 1979 and completed the effort on September 21, 1979. Preliminary evaluation of the discrepancies discovered by the inspection team have been completed and the results indicate that none of these discrepancies adversely affect system operability. Detailed engineering reviews of the walkdown inspection packages have been completed. Discrepancies identified by both the inspection team and the stress analyst have been tabulated and are shown in Attachment 1. This tabulation includes the discrepancies that were previously submitted on October 1, 1979. Detailed engineering review of all discrepancies are complete and support the preliminary evaluation that the operability of safety-related systems is unaffected by these discrepancies.

IV. Action Item 4

If nonconformances are identified:

- A. Evaluate the effect of the nonconformance upon system operability under specified earthquake loadings and comply with applicable action statements in your technical specifications including prompt reporting.
- B. Submit an evaluation of identified nonconformances on the validity of piping and support analyses as described in the Final Safety Analysis Report (FSAR) or other NRC approved documents. Where you determine that reanalysis is necessary, submit your schedule for: (i) completing the reanalysis, (ii) comparisons of the results to FSAR or other NRC approved acceptance criteria and (iii) submitting descriptions of the results of reanalysis.
- C. In lieu of B, submit a schedule for correcting nonconforming systems so that they conform to the design documents. Also submit a description of the work required to establish conformance.
- D. Revise documents to reflect the as-built conditions in plant, and describe measures which are in effect which provide assurance that future modifications of piping systems, including their supports, will be reflected in a timely manner in design documents and the seismic analysis.

V. Response

The discrepancies identified by the field inspection and the stress analyst are arranged in Attachment 1 by system, stress calculation number and pipe support or anchor number. As shown in the attachment, an engineering review has been made as to what kind of reanalysis, if any, is required to make the as-built configuration of the piping and supporting systems agree with the design.

This reanalysis may consist of a structural calculation for a pipe support or anchor, a hand calculation to evaluate the affect of a relocated support, or a complete reanalysis of a piping system. After the required reanalysis is complete, the determination will be made as to the necessity of any field rework.

If at any time, this reanalysis results in a conclusion that a deficiency exists in either the piping or its supporting system that affects system operability, applicable technical specification action will be taken.

The earliest projected completion date for reanalysis of the piping and support systems is February 1, 1980. A report on the results of the reanalysis is presently scheduled for mid-February, 1980. The current completion date for revising engineering documents to reflect the as-built conditions in the station is March 1, 1980.

To assure that modifications are reflected in the engineering documents, all modifications to safety-related piping systems, including their supports, are made only by a Facility Change Request (FCR). Prior to the start of any physical work, the FCR is forwarded to engineering for detailed design. The required engineering is then performed, including: field routing of piping, field location of supports, stress analysis of piping, design and/or revisions to supports, and issue of drawings for construction. Once the rework is completed at the site, engineering documents are updated to reflect the as-built configuration.

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ATTACHMENT 1

Response to NRC IE Bulletin 79-14

The discrepancies identified by the field inspection effort and the detailed engineering reviews are listed on the attached sheets.

The stress calculations are grouped by system and the description of all the discrepancies identified that appear in each stress calculation are tabulated accordingly.

If, for a given stress calculation, no discrepancies are noted, reanalysis of the calculation is not required.

If a discrepancy is of small significance and affects only a pipe support or anchor, the support itself is reanalyzed. If found adequate, a drawing change may be required. This required reanalysis is indicated by a single asterisk (\*).

If a discrepancy includes location of supports beyond the established tolerance, a simple hand calculation to evaluate the affect on the pipe and adjacent supports will be performed. This required reanalysis is indicated by two asterisks (\*\*).

If a discrepancy includes use of preliminary valve weights in the analysis, different response spectra to be considered, missing piping supports, etc., the stress calculation will require a complete reanalysis. This is indicated on the following sheets by three asterisks (\*\*\*) .

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IE BULLETIN 79-14 DESCRIPTION OF INSPECTION RESULTS

PAGE 1 OF 62  
 BY Wally J. Galt DATE 10/13/77  
 CHECKED Cliff DATE 10/13/77

SYSTEM MAIN STEAM

STRESS CALCULATION NO.	WALKDOWN PACKAGE NO.	DISCREPANCIES		IF YES, DESCRIPTION OF DISCREPANCIES	OK AS IS OR ENG/ CALC CHGS REQD	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY	
		NO	YES					UNAFFECTED	AFFECTED
41A	3		X	<p>EED-19-H17 Welds not in accordance with M-190-H03F-1916-6</p> <p>EED-19-H28 Welds not in accordance with M-190-H03F-1927-6</p> <p>EED-19-H30 Welds/configuration not in accordance with M-190-H03F-1929-7</p> <p>Anchor A221 moved 1'-1" towards West</p> <p>3A EED-19 H34 moved 1'-6" towards North</p> <p>BC, CB, BA, the supports are added</p> <p>2A EED-19 H14 moved 1'-11" towards West</p> <p>3A EED-19 H9 moved 14" towards East</p> <p>3A EED-19 H10 moved 16" towards East</p> <p>Evaluation</p>			++ Yes	X	
40A	4,5		X	<p>EED-2-H29 Welds not in accordance with M-190-W03J-228-3</p> <p>EED-19-H49 moved 13 1/4" South</p> <p>EED-19-H136 moved 1'-0" up (was below floor)</p> <p>19-H39 moved 5'-1 1/4" down</p> <p>A309 moved 1'-2" West</p> <p>2-H27 moved 2'-2" South</p> <p>Weight of valves B62-2 and B62-3 used in the analysis differs from the vendor supplied weights</p> <p>Evaluation</p>			+++ Yes	X	
40B	3 4		X	<p>EED-19-H55 Plate size not shown on M-190-H03H-1954-3</p> <p>EED-19-H56 Plate size not shown on M-190-H03H-1954-4</p> <p>EED-19-H142 Welds not in accordance with M-190-H03H-A1941-2</p> <p>EED-19-H154 moved West 16"</p> <p>EED-19-H147 not installed</p> <p>EED-19-H145 moved 2'-4" West and 1'-2" South</p> <p>3A EED-19-H72 moved 19" towards West</p> <p>Evaluation</p>			++ Yes	X	
40C	4		X	<p>Anchor A-294 pipe notch cut into Support for drain line</p> <p>Anchor A-372 pipe notch cut into Support for drain line</p> <p>EED-102-H8 Welds not in accordance with M-190-H03H-10207-6</p> <p>EED-102-H6 moved 13 1/16" East</p> <p>EED-101-H9 &amp; H10 in accessible</p> <p>Evaluation</p>			++ Yes	X	

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SYSTEM MAIN STEAM

STRESS CALCULATION NO.	MANUAL CALC. PACKAGE NO.	DISCREPANCIES		OK AS IS OR DMG/ CALC CHGS REQ'D	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY	
		NO	YES				UNAFFECTED	AFFECTED
		IF YES, DESCRIPTION OF DISCREPANCIES						
120B	5		X			*** Yes	X	
120D	5	X			X	No	X	
120E	5		X			*** Yes	X	
120G	5		X			*** Yes	X	
120H	5		X			*** Yes	X	
120A	5		X			** Yes	X	

IE BULLETIN 79-14 DESCRIPTION OF INSPECTION RESULTS

PAGE 3 OF 62  
 BY Wally J. ... DATE 1/19/79  
 CHECKED Carl DATE 10/13/79

SYSTEM MAIN STEAM

STRESS CALCULATION NO.	WALKDOWN PACKAGE NO.	DISCREPANCIES		OK AS IS (Y/N) / CALC CHGS (Y/N)	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY		
		NO	YES				UNAFECTED	AFFECTED	IF AFFECTED REFER TO REMARK NO.
		IF YES, DESCRIPTION OF DISCREPANCIES							
120C	5		X	EBB-2-H11 Weld not in accordance with M-190-H03J4-210-5 Evaluation		*	Yes	X	
10A	1		X	SR-11 moved 4'-2 1/4" South SR-10 moved 3'-6" East (Snubber only) Weight of the valves B109-2 and FV-101 used in the analysis differs from vendor supplied weight Evaluation		**	Yes	X	
10B	2		X	EBB-1-SR-18 snubber eyelet pads are undersized EBB-1-SEC-Y braced located on opposite side of support Restraint (anchor) at shield building wall SR-18 moved 3'-8 1/8" East Valve B109-1 (Valve weight) Valve FV-100 (Valve weight) Weight of the Valves B109-1 and FV-100 used in the analysis differs from vendor supplied weight Evaluation		**	Yes	X	
120F	5		X	EBD-19-H125 weld not in accordance with M-190-H03J4-A1924 EBD-19-H128 weld not in accordance with M-190-H03J4-A1927 Anchor A221 moved 1'-1" towards West 19-H-124 moved 1'-2" South Weight of valve B62-1, used in analysis differs from vendor supplied weight Evaluation		**	Yes	X	

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**POOR ORIGINAL**

SYSTEM AUXILIARY FEEDWATER

STRESS CALCULATION NO.	WELDING PACKAGE NO.	DISCREPANCIES		IF YES, DESCRIPTION OF DISCREPANCIES	OK AS IS OR ENG/ CALC CHGS REQD	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY	
		NO	YES					UNAFFFECTED	AFFECTED
1B	6		X	EED-14-H1 Welds not in accordance with M-190-H06F-1400-8 EED-14-H7 not in accordance with M-190-H06F-1406-6  Evaluation			* Yes	X	
1C	6		X	EED-14-H17A Welds not in accordance with M-190-H17A-1416B-4 EED-14-H19A Welds not in accordance with M-190-H06F-1418A-4 EED-14-H16 Spans Areas 7 and 8  Evaluation			*** Yes	X	
2B	6		X	EED-14-H35 moved 14" South Envelope of areas 7 and 9 should be used in the analysis  Evaluation			*** Yes	X	
2C	6		X	Extra Hanger located on 6" - EED-137 between Anchor A8 and EED-137-B8  EED-14-H90 moved 1'-9" South EED-14-H74 moved 2'-10" East  Evaluation			** Yes	X	
23A	7	X		Evaluation	X		No		
23B	7	X		Evaluation	X		No		
23C	7		X	EED-272-H5 Not in accordance with M-190-H06G-27206-7 Extra Support UN-1 located between EED-22-H5 and EED-22-H8 EED-272-H3 moved 14 3/4" down Weight of valve A25-1 used in analysis does not agree with vendor supplied weight  Evaluation			*** Yes	X	

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IE BULLETIN 79-14 DESCRIPTION OF INSPECTION RESULTS

PAGE 5 OF 62  
 BY Kalyan DATE: 10/27/74  
 CHECKED Conf DATE: 10/3/79

SYSTEM STEAM GENERATOR DRAINS

STRESS CALCULATION NO.	WALKDOWN PACKAGE NO.	DISCREPANCIES		OK AS IS OR UMG/ CALC CHGS REQD	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY		IF AFFECTED REFER TO REMARK NO.
		NO	YES				UNAFFECTED	AFFECTED	
64I	8		X	Anchor A021 moved 8" West and 13 1/2" Down EBD-61-H41 moved down 2'-0" EBD-61-H43 moved 2'-0" West EBD-61-H42 moved 18" West  EBD-61-H47 moved 15" South  Evaluation			** Yes	X	
64A	8		X	Weight of valve B15-2, used in the analysis differs from vendor supplied weight  Envelope of areas 7 and 9 should be considered in seismic analysis  Evaluation			*** Yes	X	
64B	8		X	EBD-61-H-6 moved 2'-3" North EBD-61-H53 moved 4'0" East  Seismic curves for area 8 should be used in analysis  Evaluation			*** Yes	X	
64C	8		X	EBD-61-H13 configuration/clearances not in accordance with M-190-H073-6112-6  EBD-61-H9 moved 1'-7" West EBD-61-H11 moved 3'-3" West EBD-61-H12 moved 2'-0" East EBD-61-H13 moved 2'-0" East  Evaluation			** Yes	X	
64D	8		X	Anchor A-16 moved 13-1/8" North  Valve A85-7 (valve weight)  Valve B15-1 (valve weight)  Seismic Joint Mismatch  Weight of valves A85-7 and B15-1 used in analysis differs from vendor supplied weight.  Envelope of areas 9 and 7 should be used in seismic analysis  Evaluation			*** Yes	X	
64E	8		X	Extra hanger located between EBD-61-H20 and EBD-61-H66  Anchor A016 moved North 13-1/8"  Envelope of areas 7 and 9 should be used in seismic analysis  Evaluation			*** Yes	X	
64F	8		X	Anchor A018 moved 1'-11" East  Evaluation			** Yes	X	
64H	8		X	Length of pipe increased by 3'-6"  Anchor A020 moved 1'-11" East  Anchor A021 moved 8" West and 13 1/2" Down  Evaluation			** Yes	X	

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IE BULLETIN 79-14 DESCRIPTION OF INSPECTION RESULTS

PAGE 6 OF 62  
 BY hugh DATE 9/30/79  
 CHECKED Conf DATE 10/13/79

SYSTEM FEEDWATER

STRESS CALCULATION NO. & PACKAGES	DISCREPANCIES		IF YES, DESCRIPTION OF DISCREPANCIES	OK AS IS OR (MIG/ CALC CHGS REQ)	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY	
	NO	YES					UNAFFFECTED	AFFECTED
42B 9		X	KBD-12-SR20 Structural Member not in accordance with C-619 KBD-12-SR21 Structural Member not in accordance with C-619 Extra Support UR-1 located between KBD-12-SR27 and KBD-12-SH13  12-SR30 moved 1'-8"S. 12-SR39 moved 12 1/2"E. 12-SR40 moved 12 1/2"E. 12-SR42 moved 1'-4 3/4"W.  The weight of Valve 15-1 used in seismic analysis differs from vendor supplied weight.  Evaluation			*** Yes	X	
42D 9		X	Anchor A-171 moved 5'1 3/4" East Weight of valve A15-2 differs from vendor supplied weight  Evaluation			*** Yes	X	

**POOR ORIGINAL**

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IE BULLETIN 79-14 DESCRIPTION OF INSPECTION RESULTS

PAGE 7 OF 62  
 BY W. J. H. DATE 9/20/79  
 CHECKED Chf DATE 9/20/79

SYSTEM HYDROGEN DILUTION

STRESS CALCULATION NO.	WALKDOWN PACKAGE NO.	DISCREPANCIES		OK AS IS OR (M/G) CALC. CHGS REQ'D	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY		IF AFFECTED REFER TO REMARK NO.
		NO	YES				UNAFFECTED	AFFECTED	
119E	25		<p>HBC-44-H5 Additional Load Attached                      HCB-49-H1 Welds not in accordance with Grinnell SK. B-4900                      HCB-49-H2 Welds not in accordance with Grinnell SK. B-4901</p> <p>HCB-44-H-10 moved 13" South                      HCB-44-H-7 moved 14 1/2" South                      HCB-44-H-2 moved 15" Up</p> <p>Support HCB-44-H10 Spans areas 7 &amp; 9 Envelope of these 2 areas should be considered in analysis.</p> <p style="text-align: center;">Evaluation</p>			*** yes		x	
119D	25		<p>HBC-74-H3 Welds not in accordance with Grinnell SK. 11-7402                      HBC-74-H10 Welds not in accordance with Grinnell SK. 11-7400                      HBC-74-H11 Welds not in accordance with Grinnell SK. 11-7410                      HBC-74-H13 Welds not in accordance with Grinnell SK. 11-7412                      HBC-74-H14 Welds not in accordance with Grinnell SK. 11-7413                      HBC-74-H17 Welds not in accordance with Grinnell SK. 11-7416                      Extra Support No. 2 located next HBC-74-H3</p> <p>HBC-74-H18 moved 13" South                      HBC-74-H11 moved 20" South</p> <p style="text-align: center;">Evaluation</p>			** yes		x	
119E	25		<p>HBB-16-H1 Welds not in accordance with M-190-H29-1600-3                      HBB-16-H2 moved 1'-10" North</p> <p style="text-align: center;">Evaluation</p>			** yes		x	
119H	25		<p>Extra Support No. 1 located next to HBC-73-H9</p> <p style="text-align: center;">Evaluation</p>		x	no		x	
119I	25		<p style="text-align: center;">Evaluation</p>	x		no		x	
119J	25		<p>HBC-73-H4 Welds not in accordance with Grinnell SK. 11-7303                      HBC-73-H7 Welds not in accordance with Grinnell SK. 11-7306                      HBC-73-H8 Welds not in accordance with Grinnell SK. 11-7307</p> <p style="text-align: center;">Evaluation</p>			* yes		x	
119K	25		<p>HBC-73-H6 Welds not in accordance with Grinnell SK. 11-7305</p> <p style="text-align: center;">Evaluation</p>			* yes		x	

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IE BULLETIN 79-14 DESCRIPTION OF INSPECTION RESULTS

BY Walsh DATE 10/14/79  
 CHECKED Cuf DATE 10/13/79

SYSTEM REACTOR COOLANT DRAIN AND GASEOUS WASTE

STRESS CALCULATION NO.	WALKDOWN PACKAGE NO.	DISCREPANCIES		IF YES, DESCRIPTION OF DISCREPANCIES	OK AS IS OR DRG/ CALC CHGS REQD	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY	
		NO	YES					UNAFFECTED	AFFECTED
78A	49		X	HSC-33-H5 Configuration not in accordance with M-190-H40C-3304-2 HSC-42-H1 welds not in accordance with M-190-H40C-4200-8 HSC-42-H2 welds not in accordance with M-190-H40C-4201-8 HSC-42-H26 welds not in accordance with M-190-H40C-4225-5 HSC-4-2H29 configuration not in accordance with M-190-H40C-4228-4 HSC-4-2-H32 welds not in accordance with M-190-H40C-4231-7 HSC-42-H433 configuration not in accordance with M-190-H40C-4234-4 HSC-42-H36 welds not in accordance with M-190-H40C-4235-6 Extra support UH-1 located next to HSC-42-H37 Extra support UH-2 between HSC-42-H33 and HSC-42-H34 HCB-42-H27 moved 15" East HCB-42-H29 moved 12 7/8" West HCB-42-H28 moved 15 1/2" East HCB-42-H33 moved 10'-9" South HCB-42-H34 moved 16" South Weight of valve HV1119B used in analysis differs from vendor supplied weight Envelope of 7 and 9 should be used in analysis Evaluation				*** Yes	X
78B	45 49		X	HSC-84-H2 welds not in accordance with M-190-H40C-8401-9 HSC-42-H9 welds not in accordance with M-190-H40C-4208-5 HSC-42-H11 welds not in accordance with M-190-H40C-4213-7 HSC-42-H13 configuration/welds not in accordance with M-190-H40C-4212-6 Extra support located between HSC-42-H1 and HSC-42-H18 Extra support located between HSC-131-H4 and HSC-131-H5 HSC-130-H1 moved 12 7/8" East HSC-131-H3 moved 14 5/8" West Weight of valves PSV-1801 and B65-36 used in analysis differs from vendor supplied weight Evaluation				*** Yes	X
78C	49	X		Evaluation	X		No	X	

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SYSTEM QUENCH TANK DRAIN

STRESS CALCULATION NO.	WALKDOWN PACKAGE NO.	DISCREPANCIES		IF YES, DESCRIPTION OF DISCREPANCIES	OK AS IS OR DMG/ CALC. CHGS REQD	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY		IF AFFECTED REFER TO REMARK NO.
		NO	YES					UNAFFECTED	AFFECTED	
58A	48		x	Envelope of 7 and 9 should be used in seismic analysis  Evaluation			*** yes	x		
58C	48		x	40 HCC-85-H5 moved 12 1/2" down Envelope of 7 and 9 should be used in seismic analysis  Evaluation			*** yes	x		
58D	48		x	HSC-19-H5 Welds not in accordance with M-190-H40B-1904-2 HSC-19-H7 Welds not in accordance with M-190-H40B-1906-2 HSC-19-H8 Welds not in accordance with M-190-H40B-1907-1 HSC-19-H9 Welds not in accordance with M-190-H40B-1908-2  40 HSC 19-H2 moved 11'-8" West 40 HSC 19-H6 moved 13" West 40 HSC 19-H9 moved 14" West  Evaluation			** yes	x		

IE BULLETIN 79-14 DESCRIPTION OF INSPECTION RESULTS

PAGE 30 OF 62  
 BY W. J. [Signature] DATE 9/20/79  
 CHECKED [Signature] DATE 9/20/79  
 10/15/79

SYSTEM MAKEUP AND PURIFICATION

STRESS CALCULATION NO.	WALKDOWN PACKAGE NO.	DISCREPANCIES		IF YES, DESCRIPTION OF DISCREPANCIES	OK AS IS OR DMG/ CALC CHGS REQD	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY		IF AFFECTED REFER TO REMARK NO.
		NO	YES					UNAFFECTED	AFFECTED	
81	27		X	31-BCC-2-H5 lowered 15 1/2"  Evaluation			** Yes	X		
69B	28		X	BCC-36-H1 Welds not in accordance with M-190-H31D-3600-4 BCC-36-H7 Welds not in accordance with M-190-H31D-3606-4 BCC-36-H11 Configuration/Structural Members not in accordance with M-190-H31D-3610-7 BCC-36-H12 Structural Members not in accordance with M-190-H31D-3611-6 BCC-36-H13 Configuration/Structural Members not in accordance with M-190-H31D-3612-5 BCC-36-H14 Structural Members not in accordance with M-190-H31D-3613-5 BCC-36-H16 Structural Members not in accordance with M-190-H31D-3615-3 BCC-36-H19 Structural Members not in accordance with M-190-H31D-3618-10 BCC-36-H12 moved 1'-4" up BCC-36-H11 moved 13" up S.A. Support BCC-36-H5 spans Seismic joint  Evaluation			*** Yes	X		
69C	27 28		X	CCB-13-H1 Structural Member not in accordance with M-190-H31D-1300-5 CCB-13-H2 Configuration not in accordance with M-190-H31D-1301-5 CCB-13-H4 Welds not in accordance with M-190-H31D-1303-8 CCB-13-H5 Welds not in accordance with M-190-H31D-1304-8 CCB-13-H11 Welds not in accordance with M-190-H31D-1510-4 CCB-13-H26 Welds not in accordance with M-190-H31C-1324-1 CCB-13-H28 Welds not in accordance with M-190-H31C-1326-2 Extra Support UH-1 located next to CCB-13-H27 Extra Support UH-2 located next to CCB-15-H28 Anchor A-368 moved 3'-4" West CCB-13-H25 moved 1'-0" South then 1'-2 1/2" East along pipe around elbow CCB-13-H11 moved 12 1/2" East  Weight of the valve H11-3 used in Seismic analysis differs from vendor supplied weight. Pipe Supports 33 CCB13-H4 and 45 spans the seismic joint between areas 7 and 8  Evaluation			*** Yes	X		

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SYSTEM MAKEUP AND PURIFICATION

STRESS CALCULATION NO.	WALKDOWN PACKAGE NO.	DISCREPANCIES		OK AS IS OR DMC/ CALC CHGS REQD	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY	
		NO	YES				UNAFFECTED	AFFECTED
69D	28		X				** Yes	X
IF YES, DESCRIPTION OF DISCREPANCIES Extra Support H "A" located between Anchor A368 and CCB-15-H5 Extra Support H "B" located between CCB-15-H5 and CCB-15-H6 Anchor A368 moved 3'-4" West 31-CCB-15-H5 moved 3'-5" East 31-CCB-15-H8 inaccessible for inspection 31-CCB-15-H9 inaccessible for inspection Evaluation								
69E	28		X				** Yes	X
Extra Hanger H "C" located between Anchor A68 and HCC-36-H21 31-HCC-36-H22 moved 17" East 31-HCC-36-H24 inaccessible for inspection 31-HCC-36-H25 inaccessible for inspection Evaluation								
H0C	26		X				** Yes	X
(SA) 31-HCC-35-H103, H104 not accessible Evaluation								
70	26		X				*** Yes	X
31-CCB-9-H1 located in Area 9 Evaluation								
70A	26		X				** Yes	X
HCC-35-H-13 not installed Anchor A-166 structural members not in accordance with C-882 HCC-1-H3 welds/structural members not in accordance with M-190-H31B-102-7 HCC-1-H5 welds not in accordance with M-190-H31B-109-5 HSC-66-H8 welds not in accordance with M-190-H31B-6614-6 HSC-66-H15 welds/clearances not in accordance with M-190-H31B-6614-6 HSC-66-H23 clearance not in accordance with M-190-H31B-6622-2 31-HSC-66-H8 moved 13" East 31-HSC-66-H14 moved 13" West 31-HSC-66-H21 moved 13" East 31-HSC-66-H23 moved 23" East 31-HSC-66-H22 no hanger drawing not on math model Anchor A127 no hanger drawing 16 3/4" East 2 Hangers shown near A127 not on stress iso Evaluation								

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IE BULLETIN 79-14 DESCRIPTION OF INSPECTION RESULTS

BY Kalyan DATE 10/13/79

CHECKED Chaf DATE 10/13/79

SYSTEM MAKEUP AND PURIFICATION

STRESS CALCULATION NO.	WALDWIN PACKAGE NO.	DISCREPANCIES		IF YES, DESCRIPTION OF DISCREPANCIES	OK AS IS OR DMC/ CALC CHGS REQD	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY	
		NO	YES					UNAFFECTED	AFFECTED
69A	26 28 32		X	<p>HSC-66-H16 welds not in accordance with M-190-H31B-6619-7</p> <p>HSC-66-H26 structural member not in accordance with M-190-H31B-6625-2</p> <p>HCC-5-H5 welds not in accordance with M-190-H31D-504-3</p> <p>HCC-5-H7 welds not in accordance with M-190-H31D-506-2</p> <p>HSC-62-H1 welds not in accordance with M-190-H31D-6200-2</p> <p>HSC-62-H2 configuration not in accordance with M-190-H31D-6201-3</p> <p>Extra hanger UR-1 located between anchor A-4 and HCC-124-H4</p> <p>HSC-71-H3 structural member not in accordance with M-190-H40C-7102-3</p> <p>HSC-71-H4 welds not in accordance with M-190-H40C-7103-5</p> <p>HSC-71-H6 welds/configuration not in accordance with M-190-H40C-7105-3</p> <p>HSC-71-H8 snubber piston position not in accordance with M-190-H40C-7107-4</p> <p>HSC-71-H10 snubber piston position not in accordance with M-190-H40C-7109-1</p> <p>HSC-71-H13 configuration not in accordance with M-190-H40C-7112-2</p> <p>HSC-5-H6 moved 15 1/2" North on branch line</p> <p>Weight of the valve PSV-1893 used in analysis differs from vendor supplied weight</p> <p>Envelope of areas 7 and 8 should be used in analysis</p> <p style="text-align: right;">Evaluation</p>				*** Yes	X

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SYSTEM DECAY HEAT REMOVAL

STRESS CALCULATION NO.	WALKDOWN PACKAGE NO.	DISCREPANCIES		OK AS IS OR DMG/ CALC CHGS REQD	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY													
		NO	YES				IF YES, DESCRIPTION OF DISCREPANCIES	UNAFFFECTED	AFFECTED	IF AFFECTED REFER TO REMARK NO.										
32E	30 31		x																	
32G	31		x																	
32H	31		x																	

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SYSTEM LOW PRESSURE INJECTION

STRESS CALCULATION NO.	WALKDOWN PACKAGE NO.	DISCREPANCIES		OK AS IS OR ENG/ CALC CHGS REQD	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY		IF AFFECTED REFER TO REMARK NO.	
		NO	YES				UNAFFECTED	AFFECTED		
18B	33		X				** Yes	X		
		IF YES, DESCRIPTION OF DISCREPANCIES								
				GCB-1-H5 moved 8 3/4" West GCB-1-H7 moved 8 3/4" West GCB-1-H11 moved 2'-2" West						
18F	33		X				*** Yes	X		
		Envelope of areas 7 & 8 and 9 should be used in the analysis								
				GCB-10-H17 moved 18 3/4" West GCB-10-H16 moved 12" West GCB-10-H10 moved 15" North						
45B	33		X				*** Yes	X		
		The weight of Valve B56-5 used in the seismic analysis differs from vendor supplied weight. Envelope of areas 8 and 9 should be in the analysis.								
				Evaluation						
45C	33		X				*** Yes	X		
		HCB-36-H8 moved 13 1/4" East HCB-36-H6 moved 3'-7 1/4" North Anchor A-067 moved 24" down Support 33B-HCB36-H7 spans areas 7 and 8								
				Evaluation						
80A	26 33 37		X				*** Yes			
		HCC-35-H3 welds not in accordance with M-190-H31B-3502-7 HCC-35-H5 Clearances not in accordance with M-190-H31B-3504-4 HCC-35-H19 Not installed HCC-35-H22 Welds not in accordance with M-190-H31B-3521-5 GCB-1-H36 not installed Extra Support located next to GCB-1-H1 33 B-HCC-36-H12 includes $\Delta x = 0$ not in stress iso.  GCB-1-H2 moved 12 1/4" down GCB-1-H32 moved 13 1/4" North HCC-34-H4 moved 21" up HCC-34-H2 moved 21 3/4" up  Weight of the following valves used in Seismic analysis differs from vendor supplied weight: B135-1,2; HV-DH 13A, 13B, & 14B								
				Evaluation						

SYSTEM HIGH PRESSURE INJECTION

STRESS CALCULATION NO.	WALKDOWN PACKAGE NO.	DISCREPANCIES		OK AS IS OR ENG/ CALC CHGS REQD	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY			
		NO	YES				UNAFFFECTED	AFFECTED		
53	32		X	Anchor A055 moved up 14 1/4" CCB-19-H12 moved up 2'-1 1/4" CCB-2-H18A moved up 10 1/2" CCB-19-H9 moved 13 1/2" east CCB-19-H7 moved 2'-6 1/2" north CCB-19-H8 moved 18 1/2" north Pipe CCB-19 (H7 & H8) was 7'-8 1/2" long CCB-19-H6 moved 12 1/2" east CCB-19-H5 moved 12 7/8" east  Anchor A054 in area 8.  Envelope of 7 & 8 needs to be used in analysis  Weight of the valves B7-1 & B7-4 used in the seismic analysis differs from vendor supplied weight.  Evaluation					*** Yes	X
54	32		X	CCB-2-H17 Welds not in accordance with M-190-H33D-216-8 CCB-12-H1 Welds not in accordance with M-190-H33D-1200-2 CCB-19-H2 Configuration not in accordance with M-190-H33D-1901-8 CCB-19-H3 Welds not in accordance with M-190-H33D-1902-8  CCB-19-H3 moved 6 5/8" east New hanger H-2 installed 4'-11 1/2" east of CCB-19-H1 CCB-12-H1 moved 14 3/8" west  Support H3 span joint.  Envelope of 7 & 8 needs to be used in analysis  Evaluation					*** Yes	X
56A	32		X	CCB-2-H7 Structural Members not in accordance with M-190-H33D-206-5  CCB-2-H11 Welds not in accordance with M-190-H33D-210-6  Extra Hanger UH-1 located between Anchor A-46 and WCC-124-H4  Envelope of Areas 7 & 9 needs to be used in analysis  CCB-2-H12 moved 12 3/4" North  Evaluation					*** Yes	X
56B1	32		X	CCB-2-H3 Welds not in accordance with M-190-H33D-202-5  Extra Hanger UH-3 located between CCB-2-H4 and CCB-2-H5  CCB-2-H4 moved 23 1/2" north  Anchor A-055 moved up 14 1/2"  Evaluation					** Yes	X
56B2	32		X	The weight of the valve HV-HF2B used in the analysis differs from the vendor supplied weight.  Envelope of Areas 7 & 9 should be used in the analysis.  Evaluation					*** Yes	X

SYSTEM HIGH PRESSURE INJECTION

STRESS CALCULATION NO.	WALKDOWN PACKAGE NO.	DISCREPANCIES		OR AS IS OR BAC/ CALC CHGS REQD	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY	
		NO	YES				UNAFFFECTED	AFFECTED
56C	32		X	HCC-91-H2 Welds not in accordance with M-190-E33D-9101-4 HCC-91-H3 Welds not in accordance with M-190-E33D-9102-10  Evaluation		* Yes	X	
56D	32		X	HCC-91-H9 Welds not in accordance with M-190-E33D-9108-7 HCC-91-H12 Welds not in accordance with M-190-E33D-9111-6  HCC-91-H9 moved 13 1/8" west HCC-91-H8 moved 13 1/8" west  Evaluation		** Yes	X	
56E	32		X	HCC-91-H13 Configuration not in accordance with M-190-E33D-9112-4  HCC-91-H17 Welds not in accordance with Grimmell 14-9116 HCC-91-H15 Welds not in accordance with M-190-E33D-9116-6 HCC-91-H21 Welds not in accordance with M-190-E33D-9120-6 HCC-91-H23 Welds not in accordance with M-190-E33D-9122-4  3"-HCC-91 El. 580'-3"(J-3) increased length by 1'-10 3/16"  Evaluation		** Yes	X	
56F	32		X	HCB-2-H36 Welds not in accordance with M-190-E33D-235-2 HCB-2-H38 Welds not in accordance with M-190-E33D-237-2 HCB-2-H39 Welds not in accordance with M-190-E33D-238-3 HCB-2-H40 Welds not in accordance with M-190-E33D-239-2 HCB-2-H41 Welds not in accordance with M-190-E33D-240-2 HCB-2-H43 Welds/Plates not in accordance with M-190-E33D-242-2  Minor modification from originally analyzed piping configuration.  New Hanger installed 7" from east elbow at El. 559'-9" 4"HCC-124  Evaluation		** Yes	X	
56H3	28 32		X	CCB-3-H1 Configuration not in accordance with M-190-E31D-300-1 CCB-3-H2 Welds not in accordance with M-190-E31D-301-5 CCB-3-H3 Welds not in accordance with M-190-E31D-302-3 CCB-3-H2 moved 2'-2" Northeast Anchor A369 moved 2'-0" East Area 9 should be enveloped in Seismic analysis  Evaluation		*** Yes	X	

SYSTEM EMERGENCY CORE COOLING

STRESS CALCULATION NO.	WALKDOWN PACKAGES NO.	DISCREPANCIES		OR AS IS OR DMG/ CALC CHGS REQD	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY		IF AFFECTED REFER TO REMARK NO.		
		NO	YES				UNAFFECTED	AFFECTED			
		IF YES, DESCRIPTION OF DISCREPANCIES									
32A	29										
	30		MCB-2-H18 moved 2'-4 1/2" East MCB-2-H17A moved 12 1/2" West Weight of valve HV-DH9A used in the analysis differs from the vendor supplied weight  Evaluation							*** Yes	X
32B	30		X								
			X								
32D	29										
	30		GCB-8-B8 welds not in accordance with M-190-H33B-807-6 Weight of valve B97-2 differs from the vendor supplied weight Evaluation							*** Yes	X
	33		GCB-2-H11 moved 15" West MCB-3-H11 moved 13" South 33A-HCB-2-R74 is missing Weight of valves B25-1, B26-1 differ from the supplied vendor weights Envelope of areas 7, 8 and 9 should be considered in analysis  Evaluation							*** Yes	X

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# POOR ORIGINAL

SYSTEM EMERGENCY CORE COOLING

STRESS CALCULATION NO.	WALKDOWN PACKAGE NO.	DISCREPANCIES		OK AS IS OR DMG/ CALC CHGS REQD	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY	
		NO	YES				UNAFFECTED	AFFECTED
18C	30		X				*** Yes	X
IF YES, DESCRIPTION OF DISCREPANCIES GCB-4-H6 moved 8" down Weight of valve B25-2 used in the analysis differs from vendor supplied weight Evaluation								
25	29		X				** Yes	X
Extra Support located between HCB-2-H24 and HCB-2-H32 Extra Support located between HCB-2-H11 and HCB-2-H12 Extra Support located between HCB-2-H23 and HCB-2-H32 Extra Support located between HCB-2-H4 and HCB-2-H6 HCB-2-H5 Weld not in accordance with M-190-H33A-204-13 HCB-2-H13 Configuration not in accordance with M-190-H33A-212-9 HCB-2-H27 Structural Member not in accordance with M-190-H33A-226-8 HCB-2-H31 Structural Member not in accordance with M-190-H33A-230-6 Weld missing in HCB-2-H44 33A-HCB-2-H1 moved 28" in to Tank 33A-HCB-2-H3 moved 28 15/16" East for ΔZ 33A-HCB-2-H3 permits + ΔY deflection 33A-HCB-2-H14 moved 15 1/2" West 33A-HCB-2-H27 moved 10" East Evaluation								
125P	29		X				** Yes	X
HCC-93-H1 Welds/Structural Member not in accordance with M-190-H33A-9300-1 HCC-93-H2 Welds not in accordance with M-190-H33A-9301-1 Extra Support located next to HCC-93-H5 33A-HCC-93-H1 moved up 23" (SA) 33A-HCC-93-H2 moved down 11'-2 1/2" (SA) 33A-HCC-93-H6 not in the math model Evaluation								
125Q	29		X				** Yes	X
33A-HCC-122-H5 moved 23 1/8" West HSC-122-H2 welds not in accordance with M-190-H33A-122-1-2 Evaluation								

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# POOR ORIGINAL

SYSTEM CONTAINMENT SPRAY

STRESS CALCULATION NO.	WALKDOWN PACKAGE NO.	DISCREPANCIES		OK AS IS OR DMG/ CALC CHGS REQD	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY		
		NO	YES				UNAFFFECTED	AFFECTED	
19A			X			*** Yes	X		
		IF YES, DESCRIPTION OF DISCREPANCIES GCB-5-E3 Welds not in accordance with M-190-E34D-502-8 GCB-5-E4 Welds not in accordance with M-190-E34D-503-7 GCB-5-E33 moved 7" East Weight of valves B24-10 and B31-2 used in the analysis differ from vendor supplied weights. Evaluation							
19B	36		X			*** Yes	X		
		GCB-5-E7 Load-Carrying Member not in accordance with M-190-E34D-506-9 GCB-5-E9 Welds not in accordance with M-190-E34D-508-5 GCB-5-E35 not in accordance with M-190-E34D-534-1 MCC-38-E3 Structural Member not in accordance with M-190-E34D-3802-5 Extra Hanger UH-3 located between Anchor A80 and MCC-38-E5 Weight of the valves B24-11, B31-3 and B98-1 used in analysis differ from vendor supplied weight Envelope of Areas 7 & 9 need be considered in analysis Evaluation							
19C	36		X			*** Yes	X		
		MCC-38-E7 Clearances and additional loading not in accordance with SK-14-3806 MCC-38-E8 Welds not in accordance with SK-14-3807 MCC-38-E9 Configuration of additional Hanger not in accordance with SK-14-3808 MCC-38-E11 Structural Member size, shim size, and clearance not in accordance with M-190-E34D-3810-6 MCC-38-E12 Welds not in accordance with M-190-E34D-3811-4 MCC-38-E13 Additional loads attached to Hanger Anchor A-81 moved 1'-6" West ECC-38-E8 moved 1'-7" East Support MCC-38-E12 Spans Areas 7 and 9 Envelope of Areas 7 & 9 should be used in analysis Evaluation							
19F	36		X			*** Yes	X		
		MCC-37-E17 Shims, Wrapper Plate and Associated Welds not in accordance with M-190-E34D-3716-3 Extra hanger UH-1 located between MCC-37-E14 and MCC-37-E15 Extra hanger UH-2 located between MCC-37-E14 and MCC-37-E15 Extra hanger UH-4 located between MCC-37-E15 and MCC-37-E16 MCC-37-E17 moved 1'-3 1/2" West Envelope of areas 7 & 8 need be considered in seismic analysis Evaluation							

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# POOR ORIGINAL

SYSTEM CONTAINMENT SPRAY

STRESS CALCULAT NO.	WALKDOWN PACKAGE NO.	DISCREPANCIES		OK AS IS OR DRG/ CALC CRGS REQD	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY		
		NO	YES				UNAFECTED	AFFECTED	IF AFFECTED REFER TO REMARK NO.
21A	35		X			*** Yes	X		
		IF YES, DESCRIPTION OF DISCREPANCIES Anchor A110 moved 13 1/8" South Envelope of area 7 should be included in the analysis Evaluation							
21B	35		X			** Yes	X		
		IF YES, DESCRIPTION OF DISCREPANCIES 34 HCC-38 H-22 moved 1" North S.A. 34 HCC-38 H11 moved 1 1/2" East S.A. 34 HCC-38 H19 moved 3 1/2" down 34 HCC-38 H16 & H17 moved 2" West 34 HCC-38 H15 moved 5" up 34 HCC-38 H23 moved 4" East S.A. Anchor A110 moved 13 1/8" South Anchor A174 moved 12" down Evaluation							
19D	36		X			*** Yes	X		
37		HCB-9-H10 additional loads attached to hanger HCB-9-H18 welds not in accordance with M-190-H34D-917-8 HCB-9-H19 Load-Carrying member not in accordance with M-190-H34D-918-7 HCB-9-H30 moved 12 1/2" South HCB-9-H20 moved 1'-3" West Weight of valve B24-4 differs from vendor supplied weight Support HCB-9-H13, H14 and H18 span areas 7 and 9 Evaluation							
19E	35		X			*** Yes	X		
36		HCC-37-H7 hanger and baseplate not in accordance with M-190-H34D-3706-8 HCC-37-H9 baseplate not in accordance with M-190-H34D-3708-8 HCC-37-H10 moved 1'-4 1/2" East Support HCC-37-H10 spans areas 7 and 8 Alternate supports attached to areas 7 and 8 Evaluation							
18D	33		X			*** Yes	X		
36		GCB-10-H23 welds not in accordance with M-190-H33F-1022-6 HCB-9-H14 welds not in accordance with M-190-H34D-913-7 HCB-9-H15 welds not in accordance with M-190-H34D-914-6 CCB-6-H12 moved 3" away from shield building GCB-6-H13 moved 7" up CCB-6-H1 moved 1" North GCB-10-H34 moved 3" down GCB-10-H20 moved 11 7/8" South GCB-10-H21 moved 2" South GCB-10-H24 moved 4 3/4" Southwest HCB-9-H15 moved 1 1/8" North HCB-9-H13 moved 11 1/8" North HCB-9-H14 moved 12 1/8" North GCB-10-H26 moved 2 1/2" up GCB-10-H27 moved 3 1/2" down Envelope of areas 7 and 9 should be used in the analysis Evaluation							

POOR ORIGINAL

SYSTEM SPENT FUEL POOL COOLING

STRESS CALCULATION NO.	WALKDOWN PACKAGE NO.	DISCREPANCIES		OK AS IS OR ENG/ CALC. CHGS REQ'D	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY		
		NO	YES				UNAFFECTED	AFFECTED	IF AFFECTED REFER TO REMARK NO.
80B	37		X	<p>Extra Hanger H "W" located next to HCC-26-H10</p> <p>Anchor A-222 moved 27" West</p> <p>Anchor A-231 moved 18 1/8" South</p> <p>35-HCC-26-E9 moved 12 1/2" down</p> <p>35-HCC-26-H11 moved 11 3/4" South</p> <p>Evaluation</p>			** Yes	X	
93C	37 36		X	<p>HCC-49-E3 Welds not in accordance with M-190-H46A-4907-6</p> <p>Extra Support H "C" located next to HSC-32-H11</p> <p>Extra Support H "D" located between HSC-20-H19 and HSC-20-H20</p> <p>35-HSC-32-H20 moved 66 1/2" E, W around elbow</p> <p>Evaluation</p>			** Yes	X	
64J	8 37		X	<p>Extra Hanger H "B" located next to Anchor A-368</p> <p>Extra Hanger H "C" located next to HSC-32-H2</p> <p>HED-61-H55 moved 2'-6 1/2" West</p> <p>Anchor A-117 moved 13" North</p> <p>35-HSC-32-H6 moved 2'-7" East for Y</p> <p>35-HSC-32-H6 moved 1'-7" East for X</p> <p>35-HSC-32-H2 moved 13" South</p> <p>HSC-32-H18 moved 9'-7" down</p> <p>HSC-32-H1 is missing</p> <p>Weight of the valves A85-6 and B68-6 used in the analysis differs from the vendor supplied weight</p> <p>Evaluation</p>			*** Yes	X	
93E	29		X	<p>HSC-122-H103 not installed</p> <p>HSC-122-H107 Welds not in accordance with M-190-H33A-A12206-3</p> <p>HSC-122-H111 Welds not in accordance with M-190-H33A-A12210-2</p> <p>Extra Support installed between HCC-93-H107 and HCC-93-H109</p> <p>33A-HSC-122-H111 moved 30 11/16" East</p> <p>33A-HSC-122-H102 moved 12 11/16" East</p> <p>Evaluation</p>			** Yes	X	

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# POOR ORIGINAL

IE BULLETIN 79-14 DESCRIPTION OF INSPECTION RESULTS

BY Kalyan DATE 4/13/79  
 CHECKED Conf DATE 10/13/79

SYSTEM SPENT FUEL POOL COOLING

STRESS CALCULATION NO.	WALKDOWN PACKAGE NO.	DISCREPANCIES		OK AS IS OR DMG. CALC CHGS REQD.	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY	
		NO	YES				UNAFFECTED	AFFECTED
93	38 37		X	MCC-7-E9 Weld not in accordance with M-190-E35B-708-2 MCC-7-E5 moved 23 1/4" West MCC-7-E8 moved 9" North MCC-7-E10 moved 1'-9 1/2" North Differential movement between areas 7 & 8 should be considered  Evaluation			*** Yes	X
93A	38		X	MCC-18-B4 Welds not in accordance with M-190-E35B-1803-2 MCC-18-E6 Welds not in accordance with M-190-E35B-1805-4 MCC-75-E1 Welds not in accordance with M-190-E35B-7500-3 MCC-75-E2 Welds not in accordance with M-190-E35B-7501-3 MCC-75-E3 Welds not in accordance with M-190-E35B-7502-3 35-MCC-13-E5 moved 13" West 35-MCC-18-E8 moved 13 3/4" North 35-MCC-18-E9 - no Z Restraint installed 35-MCC-75-B4 moved 3'-7 3/4" North Anchor A-219 spans Seismic joint  Evaluation			*** Yes	X
93B	18 38		X	MCC-18-H11 Clearance not in accordance with M-190-E35B-1810-5 Extra Support EH-1 located next to Anchor A-331 Extra Support EH-2 located next to Anchor A-184 Extra Support EH-4 located next to MCC-18-H12 Extra Support EH-5 located next to MCC-13-H12 Extra Support MCC-50-E326 Anchor A-400 moved 8 3/8" up 35-MCC-18-H12 moved 14 1/4" West Weight of the Valve B126-1 considered in analysis differs from vendor supplied weight  Evaluation			*** Yes	X
93D	38		X	Section of piping system is inaccessible  Evaluation		X	No	X
T-009J	38		X	ΔZ Strubber missing-1'-0" below ECB-6-B4 on analysis  Evaluation			** Yes	X

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SYSTEM SPENT FUEL POOL COOLING

STRESS CALCULATION NO.	WALKDOWN PACKAGE NO.	DISCREPANCIES		OK AS IS OR DMG/ CALC CHGS REQD	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY	
		NO	YES				UNAFFECTED	AFFECTED
T-009A	38		X	IF YES, DESCRIPTION OF DISCREPANCIES MCC-21-H2 Configuration not in accordance with M-190-H35B-2101-4 MCC-21-H4 Welds not in accordance with M-190-H35B-2103-6 MCC-21-H5 Welds not in accordance with M-190-H35B-2104-6 MCC-21-H17 Welds not in accordance with M-190-H35B-2116-2 MCC-21-H18 Welds not in accordance with M-190-H35B-2117-3 MCC-21-H19 Welds not in accordance with M-190-H35B-2118-4 MCC-21-H1 moved 24 1/2" North MCC-21-H2 moved 14 1/8" East X-Restraint not on analysis Evaluation			** Yes	X
T-009B	37 3C		X	MCC-21-H10 Structural Member not in accordance with M-190-H35B-2109-4 MCC-75-H6 Configuration not in accordance with M-190-H35B-2112-7 MCC-21-H16 moved 6'-2 3/4" West MCC-21-H11 moved 1'-8 1/2" up MCC-75-H7 moved 13 1/2" down Evaluation			** Yes	X
T-009K	37 38		X	Extra Support KH-3 located next to MCB-10-H1 MCB-10-H1 moved 2'-1" North 35-MCC-76-H3 moved 20 1/2" South Support MCB-10-H1 spans seismic joint Evaluation			** Yes	X
93F	37		X	Anchor A408 moved 25 1/2" West Evaluation			** Yes	X

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SYSTEM COMPONENT COOLING WATER

POOR ORIGINAL

STRESS CALCULATION NO.	WALKING PACKAGE NO.	DISCREPANCIES		OK AS IS OR DMC/ CALC CRCS REQ'D	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY		IF AFFECTED REFER TO REMARK NO.
		NO	YES				UNAFFECTED	AFFECTED	
61E	42		X				No	X	
					Evaluation	X			
61N	42		X				** Yes	X	
					Evaluation				
61H	42 43		X				** Yes	X	
					Evaluation				
61I	42		X				* Yes	X	
					Evaluation				
61P	39 40 42		X				** Yes	X	
					Evaluation				
61X	37 41		X				** Yes	X	
					Evaluation				

# POOR ORIGINAL

SYSTEM COMPONENT COOLING WATER

STRESS CALCULATION NO.	WALKDOWN PACKAGE NO.	DISCREPANCIES		OK AS IS OR ENG/ CALC CHGS REQ	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY	
		NO	YES				UNAFFECTED	AFFECTED
61A	40 42		X	Anchor A-091 moved 13" South  Evaluation			** Yes	X
61B	40 42		X	HBC-2-H5 Configuration not in accordance with M-190-E36B-204-3  Evaluation			* Yes	X
61C	40 41		X	HBC-23-H6 Welds/Structural Member not in accordance with M-190-E36B-2305-7  HBC-50-H2 Configuration not in accordance with M-190-E36B-5001-6  HBC-50-H3 Configuration/Structural Member not in accordance with M-190-E36B-5002-9  Valve B41-4 has been relocated into this problem  Anchor A-094 moved 1" North  Anchor A-095 moved 2'-8 1/4" East  HBC-23-H5 moved 1'-5 1/4" up  Dimensions 16" HBC-50 minor changes (C-5)  2 welded attachments added 18" below HBC-23-H1  HBC-23-H15 moved 2 1/4" North  HBC-50-H1 moved 1" West  HBC-50-H2 moved 2" East  Weights of valves B146-1, B146-2 differ from vendor supplied weights  Evaluation			*** Yes	X
61G	42 43		X	HBB-12-H5 Structural Member not in accordance with M-190-E36D-1204-3  HBC-40-H3 Structural Member not in accordance with M-190-E36D-4002-8  HBC-40-H6 Structural Member not in accordance with M-190-E36D-4005-7  HBC-40-H7 Welds not in accordance with M-190-E36D-4006-5  HBC-40-H8 Structural Member not in accordance with M-190-E36D-4007-8  Extra Hanger UH-2 located next to Blockout M-14  HBC-40-H4 moved 2'-4 3/8" West  HBC-40-H1 moved 13 3/8" West  HBC-40-H5 moved 1'-7 5/8" East  Weight of valve V16-2 differs from vendor supplied weight  Evaluation			*** Yes	X

SYSTEM COMPONENT COOLING WATER

STRESS CALCULATION NO.	WALKOUT PACKAGE NO.	DISCREPANCIES		OR AS IS OR DMG/ CALC CHGS REQD	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY				
		NO	YES				UNAFFECTED	AFFECTED	IF AFFECTED REFER TO REMARK NO.		
61M	41			IF YES, DESCRIPTION OF DISCREPANCIES  Anchor A-401 welds/structural members not in accordance with C-676  Anchor A-402 welds/structural members not in accordance with C-673  HBC-23-H22 configuration/welds not in accordance with M-190-H36C-2321-10  HBC-23-H26 clearances/welds not in accordance with M-190-H36C-2321-10  HBC-23-H27 configuration not in accordance with M-190-H36C-2326-9  HBC-23-H28 configuration not in accordance with M-190-H36C-2327-6  HBC-28-H1 welds not in accordance with M-19036C-2800-5  HBC-28-H4 welds not in accordance with M-190-H36C-2803-6  HBC-28-H5 welds not in accordance with M-190-H36C-2804-7  HBC-28-H6 configuration not in accordance with M-190-H36C-2805-7  HBC-28-H8 configuration not in accordance with M-190-H36C-2807-5  HBC-28-H9 structural member not in accordance with M-190-H36C-2808-8  HBC-28-H10 welds not in accordance with M-190-36C-2809-6  HBC-28-H15 welds not in accordance with M-190-36C-2814-3  HBC-28-H16 welds not in accordance with M-190-36C-2815-4  Extra support UH-1 located next to HBC-28-H8  HBC-23-H17 moved 12 1/2" North  HBC-23-H24 moved 26" West  Valve F7-2 and flange on vertical run exchange position  Weights of valves F 7-1, F 7-2 and F 7-3 used in analysis differ from vendor supplied weights  Evaluation							
		X				*** Yes		X			

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# POOR ORIGINAL

IE BULLETIN 79-14 DESCRIPTION OF INSPECTION RESULTS

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 BY Analyst DATE 9/30/79  
 CHECKED Chief DATE 9/30/79

SYSTEM COMPONENT COOLING WATER

STRESS CALCULATION NO.	MATERIAL PACKAGE NO.	DISCREPANCIES		OK AS IS OR DMG/ CALC. CHGS REQ'D	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY		IF AFFECTED REFER TO REMARK NO.
		NO	YES				UNAFFECTED	AFFECTED	
20D	43		X						
						Evaluation	X	No	X
55A	39		X			HBC-2-H1 Configuration not in accordance with M-190-H36A-200-9			
						Evaluation		** Yes	X
55B	39		X			HBC-2-H3 Weld's not in accordance with M-190-H36A-202-7 Support 36HBC-2-H4 moved 1'-0" east extra clamp added (not included in the analysis)			
						Evaluation		** Yes	X
55C	39		X						
						Evaluation	X	No	X
55D	39		X			HBC-27-H4 Welds not in accordance with M-190-H36A-2703-7 Valve P6-5 Welded directly to elbow			
						Evaluation	X	* Yes	X
61D	39 40 42		X			Anchor A-095 moved 2'-8 1/2" east HBC-52-H3 moved 3'-1" south Valve B41-4 is relocated beyond the problem			
						Evaluation		+++ Yes	X
61J	41		X			Anchor A-398, Welds/Structural Members not in accordance with C-674  1-H14 moved 8" down 1-H17 moved 11 1/2" South 1-H18 moved 9 1/2" South			
						Evaluation		** Yes	X
61F	42		X			HBC-2-H9 Structural Members not in accordance with M-190-H36D-208-6  HBC-2-H110 Structural Member not in accordance with M-190-H36D-209-8  Anchor A-106 configuration not in accordance with C-85  Extra Hanger UH-1 located next to Anchor A-116  Weight of Valves H39-1,2,3,4 and F3-1, 2 of 3 used in the analysis differs from vendor supplied weight			
						Evaluation		+++ Yes	X



# POOR ORIGINAL

SYSTEM COMPONENT COOLING WATER

STRESS CALCULATION NO.	WALKDOWN PACKAGE NO.	DISCREPANCIES		OK AS IS OR DMG/ CALC CHGS REQ	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY		IF AFFECTED REFER TO REMARK NO.	
		NO	YES				UNAFFECTED	AFFECTED		
61K	41		X	Anchor A-399 Welds/Structural Members not in accordance with C-672  HBC-1-H7 Configuration/Structural Member not in accordance with M-190-H36C-106-5  HBC-1-H20 Configuration/Structural Member not in accordance with M-190-H36C-119-4  HBC-1-H21 Configuration/Structural Member/Weld not in accordance with M-190-H36C-120-3  1-H23 moved 1'-2 1/4" South 1-H21 moved 8 1/2" North-West  Evaluation				** Yes	X	
61L	41		X	Anchor A-400 Welds/Structural Member not in accordance with C-675  HBC-1-H25 Structural Members not in accordance with M-190-H36C-124-3  HBC-1-H26 Structural Members/Welds not in accordance with M-190-H36C-125A-7  1-H25 moved 9" down 1-H26 moved 11 5/16" North-East  Evaluation				** Yes	X	
61T	41		X	HBC-28-H11 Welds not in accordance with M-190-H36C-2810-4  Weight of the valve B81-2 used in the analysis differs from vendor supplied weight  Evaluation				*** Yes	X	
61V	41		X	Valve B81-1 Orientation not in accordance with M-236C  Weight of the valve B81-1 used in the analysis differs from vendor supplied weight  Evaluation				*** Yes	X	
61W	41		X	HBC-80-H1 Configuration not in accordance with M-190-H36C-8000-6  Evaluation				* Yes	X	
83L	44		X	Anchor A379 Structural Member not in accordance with C-866  1. 27-H34 moved 2'-0 3/4" Southeast 2. A375 moved 1'-0 7/8" East 3. A 379 moved 1'-0 7/8" East  Evaluation				** Yes	X	

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POOR ORIGINAL

SYSTEM COMPONENT COOLING WATER

STRESS CALCULATION NO.	WALKDOWN PACKAGE NO.	DISCREPANCIES		OK AS IS OR DMG/ CALC CHGS REQD	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY		
		NO	YES				UNAFFECTED	AFFECTED	IF AFFECTED REFER TO REMARK NO.
83A	44		X				*** Yes	X	
<p>HBC-26-H5 Welds/Structural not in accordance with M-190-H36H-2604-5</p> <p>HBC-26-H6 Welds not in accordance with M-190-H36H-2605-8</p> <p>HBC-26-H7 Welds not in accordance with M-190-H36H-2606-4</p> <p>HBC-26-H8 Welds not in accordance with M-190-H36H-2607-6</p> <p>HBC-26-H9 Welds not in accordance with M-190-H36H-2608-5</p> <p>HBC-26-H10 Welds not in accordance with M-190-H36H-2609-4</p> <p>HBC-26-H15 Welds not in accordance with M-190-H36H-2614-7</p> <p>Extra Support W"A" located next to anchors A87, A88, A89, A90</p> <p>26-H14 moved 3'-11 1/4" northwest</p> <p>The correct location of the seismic joint between areas 6 &amp; 7 need to be considered in analysis</p> <p style="text-align: right;">Evaluation</p>									
83B	44		X				*** Yes	X	
<p>HBC-26-H20 Welds not in accordance with M-190-H36H-2619-3</p> <p>HBC-26-H21 Welds not in accordance with M-190-H36H-2620-3</p> <p>HBC-26-H22 Welds not in accordance with M-190-H36H-2621-3</p> <p>HBC-26-H24 Welds not in accordance with M-190-H36H-2623-4</p> <p>HBC-26-H23 Welds not in accordance with M-190-H36H-2622-4</p> <p>HBC-26-H28 Welds not in accordance with M-190-H36H-2627-5</p> <p>A376 moved 1'-1 7/8" West</p> <p>The correct locations of the seismic joint between areas 6 &amp; 7 need to be considered in analysis</p> <p style="text-align: right;">Evaluation</p>									
83C	44		X				*** Yes	X	
<p>HBC-27-H9 Welds not in accordance with M-190-H36H-2708-4</p> <p>HBC-27-H10 Welds not in accordance with M-190-H36H-2709-3</p> <p>HBC-27-H11 Welds/clearance not in accordance with M-190-H36H-2710-3</p> <p>HBC-27-H12 Welds not in accordance with M-190-H36H-2711-2</p> <p>HBC-27-H14 Welds, clearances/structural members not in accordance with M-190-H36H-2713-3</p> <p>HBC-27-H15 Welds not in accordance with M-190-H36H-2714-5</p> <p>HBC-26-H16 extra support exists in the field</p> <p>HBC-27-H17 Welds not in accordance with M-190-H36H-2716-4</p> <p>27-H16 moved 1'-3 1/16" Southeast</p> <p>27-58 moved 1'-0 1/16" Southeast</p> <p>The correct location of the seismic joint between areas 6 &amp; 7 need to be considered in the analysis</p> <p style="text-align: right;">Evaluation</p>									

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**POOR ORIGINAL**

SYSTEM COMPONENT COOLING WATER

STRESS CALCULATION NO.	MARKING PACKAGE NO.	DISCREPANCIES		IF YES, DESCRIPTION OF DISCREPANCIES	OK AS IS OR DMG/ CALC CHGS REQD	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY		IF AFFECTED REFER TO REMARK NO.
		NO	YES					UNAFFECTED	AFFECTED	
83D	44		X	HBC-27-H23 Welds not in accordance with M-190-H36H-2722-3 HBC-24-H24 Welds/clearance not in accordance with M-190-H36H-2723-3 HBC-27-H26 Welds not in accordance with M-190-H36H-2725-4 HBC-27-H27 Welds/added weight not in accordance with M-190-H36H-2726-3 HBC-27-H28 Welds not in accordance with M-190-H36H-2727-6 HBC-27-H29 Configuration not in accordance with M-190-H36H-2728-6 HBC-27-H30 Welds not in accordance with M-190-H36H-2729-5 HBC-27-H32 Structural Member not in accordance with M-190-H36H-2731-3 Extra Support B "B" located next to HBC-27-H22 The correct location of the seismic joint between areas 6 & 7 need be considered in the analysis Evaluation			*** Yes	X		*
83F	44		X	HBC-26-H40 Welds/direction of support not in accordance with M-190-H36H-2639-4 HBC-26-H41 Welds/direction of support not in accordance with M-190-H36H-2640-3 Anchor A376 Structural Member not in accordance with C-866 Evaluation			* Yes	X		
83F	44		X	HBC-27-H50 Weld/direction of support not in accordance with M-190-H36H-2749-3 HBC-27-H55 Configuration not in accordance with M-190-H36H-2754-7 Anchor A377 Structural Member not in accordance with C-866 Evaluation			* Yes	X		
83G	44		X	A-374 moved 13" East Evaluation			** Yes	X		
83H	44		X	27H36 moved 1'-6" South A-375 moved 1'-0 7/8" East Support 36-HBC-27-H47 spans the joint between areas 6 & 9 Evaluation			*** Yes	X		
83K	44		X	Anchor 378 Structural Member Not in accordance with C-866 26-H32 moved 2'-0 3/4" Southeast A374 moved 13" East A378 moved 15" East Evaluation			** Yes	X		

**POOR ORIGINAL**

SYSTEM SERVICE WATER

STRESS CALCULATION NO.	MARKING PACKAGE NO.	DISCREPANCIES		OK AS IS OR DMG/ CALC CHGS REQD	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY		IF AFFECTED REFER TO REMARK NO.	
		NO	YES				UNAFFECTED	AFFECTED		
51	51		X							<p>Extra Hanger "HA" located between HBD-96-H4 &amp; HBD-96-H5</p> <p>Hanger HBD-96-H4 sketch calls for weld all-around, but welded at 2 of 4 sides.</p> <p>HBC-34-H41 moved 14 11/16" southwest along pipe</p> <p>Anchor A137 inaccessible</p> <p>Weight of the valves E-14 and E3-15 used in the seismic analysis differs from vendor supplied weight.</p> <p>Evaluation</p> <p>*** Yes X</p>
51B	51		X							<p>Weight of the valves PSV-3962 and PSV-3963 in the seismic analysis differs from vendor supplied weight.</p> <p>Evaluation</p> <p>*** Yes X</p>
110A	55		X							<p>HBC-37-H27 Welds not in accordance with M-190-H41L-3726-2</p> <p>HBC-37-H34 Structural Member not in accordance with M-190-H41L-3733-4</p> <p>HBC-37-H35 Welds not in accordance with M-190-H41L-3734-2</p> <p>HBC-37-H36 Structural Member not in accordance with M-190-H41L-3735-4</p> <p>HBC-37-H37 Welds not in accordance with M-190-H41L-3736-6</p> <p>HBC-37-H40 Structural Members not in accordance with M-190-H41L-3739-4</p> <p>HBC-37-H42 Welds not in accordance with M-190-H41L-3741-3</p> <p>HBC-37-H43 Welds not in accordance with M-190-H41L-3742-4</p> <p>37-H46 moved 1'-4" N.</p> <p>37-H36 moved 1'-7" S.</p> <p>37-H45 moved 1'-4 3/4" SE.</p> <p>41 HBC-37 H39 Inaccessible</p> <p>Evaluation</p> <p>** Yes X</p>
63B	53		X							<p>41-HBC-62-H2 moved 18" East</p> <p>Weights of following valves used in analysis differs from vendor supplied weight:</p> <p>F4-9, F4-10, F4-11, F6-7, F6-8, F6-9, F6-10, TV1429, TV1434</p> <p>Evaluation</p> <p>*** Yes X</p>
63C	53		X							<p>Weight of the following valves used in analysis differs from vendor supplied weight: F11-7, F11-9, F11-11, F11-12, F11-13, F11-14, TV-1356, TV-1357 and TV-1358</p> <p>Evaluation</p> <p>*** Yes X</p>

IE BULLETIN 79-14 DESCRIPTION OF INSPECTION RESULTS

SYSTEM SERVICE WATER

STRESS CALCULATION NO.	MATERIAL PACKAGE NO.	DISCREPANCIES		IF YES, DESCRIPTION OF DISCREPANCIES	OR AS IS OR ENG/ CALC CHECK REQD	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY		IF AFFECTED REFER TO REMARK NO.
		NO	YES					UNAFFFECTED	AFFECTED	
84A	54		X	Support HBC-45-27 Not welded in accordance with M-190-B41H-4506-3 4 Support HBC-45-H17 not welded in accordance with the sketch. Support HBC-45-H13 not welded in accordance with M-190-B41H-4512-3 Valve B86-3 orientation not in accordance with M-241A Valve B86-4 orientation not in accordance with M-241H HBC-45-H3 moved 1'5" East HBC-45-H11 moved 14" East HBC-45-H13 moved 15" West HBC-45-H14 moved 3'-6" Down HBC-45-H9 moved 14" South Weight of the valve B12-1 used in the analysis differs from the vendor supplied weight Evaluation			*** Yes	X		
84B	54		X	HBC-45-H20 welds not in accordance with M-190-B41H-4519-4 HBC-45-H26 weld not in accordance with M-190-B41H-4525-3 HBC-45-H27 welds not in accordance with M-190-B41H-4526-6 HBC-45-H32 configuration not in accordance with M-190-B41H-4531-5 HBC-45-H34 welds not in accordance with M-190-B41H-4533-6 HBC-45-H37 welds not in accordance with M-190-B41H-4536-9 HBC-45-H23 moved 2'-6" South HBC-45-H29 moved 1'6" East HBC-45-H31 moved 23" South Evaluation			** Yes	X		
84C	54		X	HBC-45-B41 Welds not in accordance with M-190-B41H-4540-5 Valve B12-1 orientation not in accordance with 3"-HBC-45 M-241H Valve B86-18 orientation not in accordance with 3"-HBC-45 M-241H HBC-45-H39 moved 12 1/2" South HBC-45-B41 moved 16" South Evaluation			** Yes	X		
63A	53 54		X	HBC-37-H16 Welds not in accordance with M-190-B41D-3715-4 HBC-45-H2 moved 14" North Evaluation			** Yes	X		

POOR ORIGINAL

SYSTEM SERVICE WATER

STRESS CALCULATION NO.	WALKDOWN PACKAGE NO.	DISCREPANCIES		OR AS IS OR DMG/ CALC CHGS REQD	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY	
		NO	YES				UNAFFECTED	AFFECTED
		IF YES, DESCRIPTION OF DISCREPANCIES						
60	30 33 36		X	HBC-36-H7 Elevation/Configuration not in accordance with M-190-H507-3606-5  HBC-36-H11 moved 3'-1 7/16" Northeast HBC-36-H10 moved 2'-1 7/16" Northeast HBC-36-H9 moved 3'-0 3/4" Northeast HBC-36-H8 moved 3'-0 3/4" Northeast HBC-36-H22 moved 2'-1" East HBC-36-H4 moved 4'-5" East 41-HBC-36-H26 moved 7'-9" West Anchor A145 moved 1 3/4" East 41-HBC-36-H12 moved 19" South  Evaluation		** Yes	X	
84D	54		X	HBC-44-H5 Clearance not in accordance with M-190-B41H-4404-8 HBC-44-H50 Welds not in accordance with M-190-B41H-4469-2  HBC-44-H6 moved 16" South HBC-44-H50 moved 1'-3" South 41-HBC-44-H17 ΔH Support added not analyzed on old problem  Evaluation		** Yes	X	
84E	54		X	HBC-44-H22 Welds not in accordance with M-190-B41H-4421-5 HBC-44-H28 Configuration not in accordance with M-190-B41H-4427-6 HBC-44-H30 Welds not in accordance with M-190-B41H-4429-3  HBC-44-H20 moved around corner 2'-6" north (8 1/2" east) HBC-44-H21 moved around corner 2'-6" north (8 1/2" east) HBC-44-H28 moved 21" North HBC-44-H29 moved 21" North HBC-44-H30 moved 2'-7" East HBC-44-H31 moved 2'-7" East  Evaluation		** Yes	X	
84F	54		X	HBC-44-H36 Welds not in accordance with M-190-B41H-4435-5 HBC-44-H37 Welds not in accordance with M-190-B41H-4436-8 HBC-44-H40 Welds not in accordance with M-190-B41H-4439-4 HBC-44-H42 Welds not in accordance with M-190-B41H-444-2  HBC-44-H34 moved 1'-10" West HBC-44-H35 moved 1'-10" West HBC-44-H36 moved 15" East HBC-44-H37 moved 15" East HBC-44-H40 moved down 14"  Evaluation		** Yes	X	

POOR ORIGINAL

**POOR ORIGINAL**

SYSTEM SERVICE WATER

STRESS CALCULATION NO.	VALVE/ON PACKAGE NO.	DISCREPANCIES		OK AS IS OR (BIC/ CALC CHGS REQD)	CORRECT TO ORIGINAL DESIGN ANALYSIS REQUIRED	SYSTEM OPERABILITY		
		NO	YES			UNAFFECTED	AFFECTED	IF AFFECTED REFER TO REMARK NO.
		IF YES, DESCRIPTION OF DISCREPANCIES						
52A	58	X		Evaluation	X	No	X	
52C	58	X		HBC-34-B23 Configuration not in accordance with M-190-B50F-3422-5 Evaluation		* Yes	X	
37A	52	X		42-HBC-43-B2 moved 22" down 41-HBC-43-B3 moved 9'-6" South Anchor A-138 moved 31" East Evaluation		** Yes	X	
37B	52	X		Penetration P-3 not shown on M-241C Penetration P-5 not shown on M-241C Anchor A-139 moved 48" West 41-HBC-43-B5 moved 22" down Evaluation		** Yes	X	
37C	52	X		Penetration P-4 not shown on M-241C 41-HBC-43-B12 moved 21" North 41-HBC-43-B8 moved 14" down Evaluation		** Yes	X	
37E	52 54	X		Penetration P-1 not shown on M-241C Extra Support UH-1 located next to HBC-44-B4 HBC-35-B17 Welds not in accordance with M-190-B41C-3516-8 Anchor A-142 moved 22" East 41-HBC-35-B24 moved 20" South Evaluation		** Yes	X	

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SYSTEM SERVICE WATER

STRESS CALCULATOR NO.	MANUFACTURER'S PACKAGE NO.	DISCREPANCIES		IF YES, DESCRIPTION OF DISCREPANCIES	OK AS IS OR ENG/ CALC CHGS REQD	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY	
		NO	YES					UNAFFFECTED	AFFECTED
37F	7 52		X	Weights of the following valves used in analysis differ from vendor supplied weights: F11-1, 2, 3, 4, 5 and 6  Evaluation			*** Yes	X	
37D	7 52 54		X	Penetration P-2 not shown on M-241C 41-HBC-35-H10 moved 19" South 41-HBC-35-H11 moved 34" Around corner, W & N (axial - lateral) Anchor A-141 moved 22" East 41-HBC-35-H7 moved 20 3/4" South  Evaluation			** Yes	X	
51A	51	X		No discrepancies  Evaluation	X		No	X	
52B	51 52		X	Hanger missing on the horizontal run Weights of valves F2-1, F2-2, F2-3, F2-4, F4-7 and F4-8 differ from vendor supplied weights  Evaluation			*** Yes	X	
<p><b>POOR ORIGINAL</b></p>									



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STRESS CALCULATION NO.	WALKDOWN PACKAGE NO.	DISCREPANCIES		OK AS IS OR DMG/ CALC CHGS REQD	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY					
		NO	YES				UNAFFECTED	AFFECTED				
96A	57		X	HSC-145-H36 Welds not in accord with M-190-B46B-14535-4 HSC-145-H37 Clearances not in accordance with M-190-B46B-14536-4 Additional loads attached HSC-145-H39 Structural Members not in accordance with M-190-B46B-14538-3 HSC-145-H46 Welds not in accordance with M-190-B46B-14545-4 Evaluation					*	Yes	X	
96C	57		X	HSC-155-H10 Welds not in accordance with M-190-B46B-15509-1 HSC-155-H11 Welds not in accordance with M-190-B46B-15510-2 HSC-145-H6 moved 1'-6 7/8" north HSC-155-H12 moved up 1'-2 1/4" Evaluation					**	Yes	X	
96D	57		X	HSC-145-H16 Welds not in accordance with M-190-B46B-14515-6 HSC-145-H19 Welds not in accordance with M-190-B46B-14518-3 HSC-145-H21 Welds not in accordance with M-190-B46B-14520-1 Evaluation					*	Yes	X	
96E	57		X	HSC-155-H4 Additional loads attached Extra Hanger located between HSC-155-H3 and HSC-155-H4 Anchor A355 has moved to horizontal pipe from vertical position (2 1/4" HSC-155). 8" from elbow toward north HSC-155-H3 moved 3'-5" east Anchor A-356 moved 2'-3" west Evaluation					**	Yes	X	
96F	57		X	HSC-155-H9 Configuration not in accordance with M-190-B46B-14508-5 HSC-155-H16 Welds not in accordance with M-190-B46B-15515-2 Anchor A356 moved 2'-3" west Pipe routing changed-elbows added-used to be 28'-5" @ E1. 561'-3" now 23'-6" @ E1. 561'-3" & 5'-0" @ 559'-3" HSC-155-H18 moved 1'-6" west HSC-155-H9 previously only hanger support-now rigid x support added Anchor A357 moved up 3'-7 1/4" Evaluation					**	Yes	X	

POOR ORIGINAL

1265 200

SYSTEM SHIP FUMP DISCHARGE

STRESS CALCULATION NO.	WALKDOWN PACKAGE NO.	DISCREPANCIES		OK AS IS OR DMG/ CALC CHGS REQD	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY						
		NO	YES				UNAFECTED	AFFECTED					
908	37 57			IF YES, DESCRIPTION OF DISCREPANCIES  Hanger HSC-145-B49 Welds not in accordance with M-190-B46B-14548-3 Extra Hanger H "X" located between HSC-32-H16 and HSC-32-H17 Extra Hanger H "Y" located next to HSC-32-H14 Hanger HSC-145-B49 moved 1'-2 5/8" South 35-HSC-32-H15 moved 14" East  Evaluation									
			X			** Yes		X					

1265 201

SYSTEM EMERGENCY DIESEL GENERATOR

STRESS CALCULATION NO.	WALKDOWN PACKAGE NO.	DISCREPANCIES		IF YES, DESCRIPTION OF DISCREPANCIES	OK AS IS OR DRC/ CALC CHGS REQD	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY	
		NO	YES					UNAFFECTED	AFFECTED
122A	59		X	HBC-53-H5 Welds not in accordance with M-190-B62C-534-2 HBC-53-H6 Welds/Structural Members not in accordance with M-190-B62C-535-2 HBC-53-H7 Welds not in accordance with M-190-B62C-536-2 HBC-53-H9 Welds not in accordance with M-190-B62C-5308- HBC-53-H10 Welds not in accordance with M-190-B62C-539-2 HBD-183-H7 Welds not shown on M-190-B62C-1836-1 HBC-53-H1 moved 1'-6" South HBC-53-H2 moved 1'-6" East  Evaluation			Yes	X	
123A	60	X		No Hanger Problem  Evaluation	X		No	X	
123B	60		X	HBD-359-H2 Weld not in accordance with M-190-H268D-35901-4 HBD-359-H10 Weld not in accordance with M-190-H268D-35909-4 HBD-359-H2 moved 7 3/4" Northeast HBD-359-H14 moved 1'-1 3/4" West HBD-359-H8 moved up 7 7/8"			Yes	X	

1265 202

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SYSTEM AUXILIARY STREAM

STRESS CALCULATION NO.	WALKDOWN PACKAGE NO.	DISCREPANCIES		OR AS IS OR DMC/ CALC CRCS REQD	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY		IF APPLICABLE REFER TO REMARK NO.
		NO	YES				UNAFFECTED	AFFECTED	
68C	21		X	GBD-12-B4 Welds not in accordance with M-190-E20B-1203-3 Restraint 20 GBD-12 B6 moved 2'-11" down Restraint 20 GBD-12 B3 moved 1'-11" north  Evaluation		** Yes	X		
77A	22		X	Extra Hanger located next to HBD-37-H77 HBD-44-H2 Configuration not in accordance with Grinnell SK 12-4401 HBD-44-B4 Welds not in accordance with M-190-E20D-4403-2 HBD-44-H11 Structural Member not in accordance with M-190-E20D-4410-3 Anchor A-238 moved 2'-0" east  Evaluation		** Yes	X		
77B	22		X	HBD-44-H8 Configuration not in accordance with M-190-E20D-4407-3 HBD-44-H9 additional load attached  Evaluation		+ Yes	X		
77C	22	X		Evaluation		X	No	X	
77E	22		X	HBD-86-H3 Additional Load attached Support 20 HBD86-B4 moved 1'-4" east  Evaluation		** Yes	X		
77F	22		X	The weight of the valve HV-2073 used in the analysis differs from the vendor supplied weight  Evaluation		*** Yes	X		
77G	22	X		Evaluation		X	No	X	

1265 203

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SYSTEM AUXILIARY STEAM

STRESS CALCULATION NO.	WALKDOWN PACKAGE NO.	DISCREPANCIES		OK AS IS OR DMG/ CALC CHGS REQD	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY		IF AFFECTED REFER TO REMARK NO.
		YES	IF YES, DESCRIPTION OF DISCREPANCIES				UNAFFECTED	AFFECTED	
77B	22	X	Restraint 20- HBD-86-H17 moved 1'-7 5/8" down  Evaluation			** Yes	X		
85	24	X	HBD-87-H20 Structural Member not in accordance with M-190-H20L-8719-3  HBD-87-H21 welds not in accordance with M-190-H20L-8720-3  Extra Support H "A" located next to HBD-87-H15  87-H15 moved 1'-10" West  87-H18 moved 2'-2" North  Evaluation			** Yes	X		
94B	23 24	X	Anchor A278 Configuration/dimensions not in accordance with C-889  Anchor A279 Dimensions not in accordance with C-889  HBD-46-34 Configuration not in accordance with M-190-H20G-A4603-6  HBD-5-H108 Welds not in accordance with M-190-H20G-A4607-2  Support 20 HBD-46-H5 moved 1'-11 1/4" North  87-H29 moved 1'-3" down  87-H11 moved 2'-4" East  Evaluation			** Yes	X		

1265 204

SYSTEM CIRCULATING WATER

STRESS CALCULATION NO.	WALKDOWN PACKAGE NO.	DISCREPANCIES		IF YES, DESCRIPTION OF DISCREPANCIES	OK AS IS OR DWG/ CALC CHGS NEEDED	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY		
		NO	YES					UNAFFECTED	AFFECTED	IF AFFECTED REFER TO REMARK NO.
59	15		X	Valve FV-2929 orientation not in accordance with M-241A Valve FV-2932 orientation not in accordance with M-241A HBD-98-H1 welds not in accordance with M-190-B41A-9800-3 HBD-191-H1 structural members not in accordance with M-190-B41A-19100-3 HBD-194-H1 moved 35" South HBD-194-H4 moved 15" South HBD-98-H1 moved 24" South HBD-98-H2 moved 23" South HBD-28-H1A moved 18 3/8" North HBD-28-H2A moved 13" South Anchor A182 moved 3'6" North Anchor A371 moved 15" North Anchor A370 moved 15" North  Evaluation				Yes	X	
59B	15		X	Valve FV-2944 orientation not shown on M-212B Valve FV-2945 orientation not shown on M-212B HBD-100-H6 welds not in accordance with M-190-H12B-10005-5  Evaluation				Yes	X	

1265 205

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SYSTEM FIRE PROTECTION SYSTEM

STRESS CALCULATION NO.	WALKDOWN PACKAGE NO.	DISCREPANCIES		G. AS IS OR DMG/ CALC CHGS REQD	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY		IF AFFECTED REFER TO REMARK NO.
		NO	YES				UNAFFECTED	AFFECTED	
79	19		X				** Yes	X	
KBE-2-H98 hanger not installed KBE-2-H100 welds not in accordance with M-190-H16E-299-6 KBE-2-H103 welds not in accordance with M-190-H16E-A202-6 KBE-2-H104 welds not in accordance with M-190-H16E-A203-6 KBE-2-H105 weld not in accordance with M-190-H16E-206-8 KBE-2-H107 welds not in accordance with M-190-H16E-A206-8 KBE-2-H108 welds not in accordance with M-190-H16E-A207-7 KBE-2-H319 welds not in accordance with M-190-H16E-C218-2 Hanger KBE-2 H98 missing Wall anchor Inaccessible Evaluation									
79A	19		X				*** Yes	X	
KBE-2-H236 welds and configuration not in accordance with M-190-H16E-B235-3 KBE-2-H237 welds and configuration not in accordance with M-190-H16E-B236-4 KBE-2-H238 welds and configuration not in accordance with M-190-H16E-B237-4 KBE-2-H243 plate and clearance not in accordance with M-190-H16E-B242-5 KBE-2-H244 weld not in accordance with M-190-H16E-B243-5 KBE-2-H245A weld not in accordance with M-190-H16E-B244A-6 KBE-2-H320 welds not in accordance with M-190-H16E-219-2 SA(-Y direction) restraint (16-KBE-2-HB42) not in the math model Extra Hanger UH-6 located to KBE-2-H241 Support 6KBE-2-H126A, H236, H237, H238 and H245A span seismic joint. Envelope 8 areas 7 and 8 should be used with differential movements accordingly. Evaluation									
79B	19								
KBE-2-H251 welds not in accordance with M-190-H16E-B250-3 KBE-2-H255 welds not in accordance with M-190-H16E-B254-3 KBE-2-H258 plates not in accordance with Grinnell 18-B257 KBE-2-H259 welds not in accordance with M-190-H16E-B258-5 KBE-2-H260 welds not in accordance with M-190-H16E-B259-5 KBE-2-H262 dimensions not in accordance with M-190-H16E-B261-7 KBE-2-H263 dimensions not in accordance with M-190-H16E-B263-7 KBE-2-H266 welds not in accordance with M-190-H16E-B265-5 KBE-2-H268, welds not in accordance with M-190-H16E-B267-4 A361 dimensions not in accordance with drawing M-216E Extra Hanger UH-4 located next to Anchor A361 Extra Hanger UH-5 located next to Anchor A361 Extra Hanger UH-7 located next to Anchor A359 Extra Hanger UH-8 located next to Anchor A359 Valve FP-3 orientation of operator not in accordance with M-216E Restraint 16KBE-2 not in the math model Weight of valves, FP-3 and FP-4 used in the analysis differs from vendor supplied weight									

1265 206

SYSTEM FIRE PROTECTION SYSTEM

STRESS CALCULATION NO.	WALDEN PACKAGE NO.	DISCREPANCIES		OK AS IS OR ENG/ CALC CHGS REQD	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY			
		NO	YES				UNAFFECTED	AFFECTED	IF AFFECTED REFER TO REMARK NO.	
<u>CONTINUED</u> 79B	19		X							
79C	19		X							
87A	18		X							

**POOR ORIGINAL**

1265 207



POOR ORIGINAL

SYSTEM FIRE PROTECTION SYSTEM

STRESS CALCULATION NO.	WALKDOWN PACKAGE NO.	DISCREPANCIES		IF YES, DESCRIPTION OF DISCREPANCIES	OK AS IS OR DMG/ CALC CHGS REQD	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY	
		NO	YES					IF AFFECTED REFER TO REMARK NO.	
87B	18		X	<p>KBE-2-H229 Structural Member not in accordance with M-190-H16D-B228-3</p> <p>KBE-2-H23 Welds not in accordance with M-190-H16D-B238-3</p> <p>KBE-2-H248A Configuration not in accordance with M-190-H16D-B247A-3</p> <p>KBE-2-H315 Welds not in accordance with M-190-H16D-C214-2</p> <p>Extra Support H "I" located next to KBE-2-H229</p> <p>Extra Support H "J" located between KBE-2-H230 and KBE-2-H314</p> <p>Extra Support H "K" located between KBE-2-H230 and KBE-2-H314</p> <p>Extra Support H "L" located next to KBE-2-H248A</p> <p>Weight of valve FP-3 used in the Seismic analysis differs from vendor supplied weight.</p> <p style="text-align: right;">Evaluation</p>				*** Yes	X
87C	18		X	<p>Anchor A-318 location not in accordance with C-651</p> <p>KBE-2-H173 Welds not in accordance with M-190-H16D-A272-6</p> <p>KBE-2-H177 Structural Member not in accordance with M-190-H16D-A276-2</p> <p>KBE-2-H180 Configuration/Welds not in accordance with M-190-H16D-A279-3</p> <p>Extra Support H "Y" located next to KBE-2-H180</p> <p>Extra Support H "C" located next to Anchor A-318</p> <p>Extra Support H "H" located next to Anchor A-315</p> <p>Valve FP-6 "A" Orientation not in accordance with M-216D</p> <p>16"KBE-2-H176 moved North 15 1/2"</p> <p>16"KBE-2-H321 Hanger dwg. is missing</p> <p>Weight of the valve FP-4 used in analysis differs from vendor supplied weight.</p> <p style="text-align: right;">Evaluation</p>				*** Yes	X
87D	18			<p>KBE-2-H191 Structural Member not in accordance with M-190-H16D-290-5</p> <p>KBE-2-H192 Welds not in accordance with M-190-H16D-A291-4</p> <p>KBE-2-H193 Welds not in accordance with M-190-H16D-A292-5</p> <p>KBE-2-H194 Welds not in accordance with M-190-H16D-A293-6</p> <p>KBE-2-H203 Welds not in accordance with M-190-H16D-A299-4</p> <p>KBE-2-H206 Welds not in accordance with M-190-H16D-B203-4</p> <p>KBE-2-H207 Welds not in accordance with M-190-H16D-B206-5</p> <p>KBE-2-H208 Welds not in accordance with M-190-H16D-B207-4</p> <p>Continued</p>					

1265 208

SYSTEM FIRE PROTECTION SYSTEM

STRESS CALCULATION NO.	WALKDOWN PACKAGE NO.	DISCREPANCIES		IF YES, DESCRIPTION OF DISCREPANCIES	OK AS IS OR DNG/ CALC CRGS REQD	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY	
		NO	YES					UNAFECTED	IF AFFECTED REFER TO REMARK NO.
Cont. 87D	18		X	Extra Support H "B" located next to KBE-2-H196 Extra Support H "C" located next to Anchor A-243 Extra Support H "D" located next to KBE-2-H210 Extra Support H "E" located next to KBE-2-H211 16-KBE-2-H166 moved 13' East 16-KBE-2-H213 moved 15" East 16-KBE-2-H207 moved 25 3/4" North 16-KBE-2-H196 moved 16 3/4" South  Evaluation			Yes	X	
82C	17	X		No Discrepancies  Evaluation	X		No	X	
82C	17			KBE-2-H140 configuration not in accordance with Grinnell SK 18-4239 KBE-2-H144 configuration not in accordance with M-190-H16C-A243-6 KBE-2-H145 configuration not in accordance with M-190-H16C-A244-3 KBE-2-H147 structural member not in accordance with M-190-H16C-A246-4 KBE-2-H148 welds not in accordance with M-190-H16C-A247-4 KBE-2-H158 configuration not in accordance with M-190-H16C-A257-4 KBE-2-H159A and B configuration not in accordance with M-190-H16C-A258-4 KBE-2-H162 configuration/welds not in accordance with M-190-H16C-A261-4 KBE-2-H163 structural member not in accordance with M-190-H16C-A262-2 KBE-2-H169 structural member not in accordance with M-190-H16C-A268-5 Valve FP-6F orientation not in accordance with M-216C Extra support H "A" located next to KBE-2-H141 Extra support H "B" located next to KBE-2-H356 Extra support H "C" located next to KBE-2-H166 Extra support H "D" located next to Anchor A292 Extra support H "F" located next to KBE-2-H246 1-H152 moved from East-West run to North-South run 2-H148 moved 2'-5" West 2-H144 moved 2'-1" North 2-H143 moved 2'-10" East 2-H141 moved 2'-9 3/4" East 2-H352 moved 1'-4" up 2-H145 moved 1'-6" up					

1265 209

IE BULLETIN 79-14 DESCRIPTION OF INSPECTION RESULTS

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SYSTEM FIRE PROTECTION SYSTEM

STRESS CALCULATION NO.	WALKDOWN PACKAGE NO.	DISCREPANCIES		OK AS IS OR DMG/ CALC CHGS REQD	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY		
		NO	YES				UNAFFECTED	AFFECTED	IF AFFECTED REFER TO REMARK NO.
118A	20		X	Valve FP-1 Orientation not in accordance with M-210F, rotated 30° East  Extra Support KBE-3-H2 is installed  Extra Support KBE-16-H14 is installed  Extra Support KBE-16-H15 is installed  The weight of the valve FP-47 used in the analysis differs from the vendor supplied weight  Evaluation			Yes	X	
82A	17		X	FP "A" type and operator orientation not specified (actual orientation shown)  KBE-2-H305 welds not in accordance with M-190-H16C-C204-1  KBE-2-H309 welds not in accordance with M-190-H16C-C208-3  Hanger 309 moved 15" North  Evaluation			Yes	X	
82B	17		X	KBE-1-H2 welds not in accordance with M-190-H16C-101-2  KBE-1-H3 welds not in accordance with M-190-H16C-102-2  KBE-1-H4 configuration not in accordance with M-190-H16C-103-2  KBE-1-H7 configuration not in accordance with M-190-H16C-106-2  Extra hanger H "Z" located next to anchor A434  Anchor A434 moved from North-South run pipe to East-West run pipe  Restraint 16-KBE-1 H9 has extra +Y  16KBE-1-H8 moved 8'-5" North  Evaluation			Yes	X	
82D	17		X	KBE-2-H291 structural member not in accordance with M-190-H16C-B290-4  KBE-2-H292 configuration/type not in accordance with M190-H16C-B291-2  KBE-2-H300 welds not in accordance with M-190-H16C-B299-4  KBE-2-H296 configuration not in accordance with M-190-H16C-B295-6  2-H-59 added 20" South 2-H-296 added 19" North  Evaluation			Yes	X	
82E	17		X	Evaluation			No	X	

1265 210

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SYSTEM FIRE PROTECTION

STRESS CALCULATION NO.	WALKDOWN PACKAGE NO.	DISCREPANCIES		IF YES, DESCRIPTION OF DISCREPANCIES	OK AS IS OR DMG/ CALC CHGS REQ'D	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY	
		NO	YES					UNAFFFECTED	AFFECTED
82C CONT'D	17		X	2-H167 moved 2'-4 1/4" North A434 moved from North-South run to East-West run 2-H163 moved 16 1/2" North Weight of the valve FF-6 used in analysis differs from vendor supplied weight Evaluation			*** Yes	X	IF AFFECTED REFER TO REMARK NO.
82F	17		X	FF-6B operator orientation not per design Extra supports UH7 and UH8 provided in the piping Weight of the valve FF4 used in the analysis differs from vendor supplied weight Envelope of areas 7 and 8 should be used in analysis Support 16KBE-2-R55 spans areas 7 and 8 Evaluation			*** Yes	X	

1265 211

# POOR ORIGINAL

SYSTEM MAKEUP WATER TREATMENT

STRESS CALCULATION NO.	WALKDOWN PACKAGE NO.	DISCREPANCIES		OK AS IS OR DMG/ CALC CHGS REQ'D	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY	
		NO	YES				UNAFFECTED	AFFECTED
102A	12		X	HEC-23-H1 Welds/Configuration not in accordance with M-190-H10E-2300-3 HEC-23-H2 Configuration not in accordance with M-190-H10E-2301-5 HEC-23-H4 Structural Members not in accordance with M-190-H10E-2303-3 HEC-23-H6 Configuration not in accordance with M-190-H10E-2305-4 Envelope of Areas 8 and 9 should be used in analysis Evaluation		*** Yes	X	
102B	13		X	Anchor A185 Configuration not in agreement with C-883 HCD-4-H73 Welds not in accordance with M-190-H10F-472-3 HCD-4-H53 Structural Member not in accordance with M-190-H10F-452-4 Extra Support No. 2 located next to HCD-4-H53 Extra Support No. 3 located between HCD-4-H50 and HCD-4-H51 Extra Support No. 4 located next to HCD-4-H47 Extra Support No. 5 located next to HCD-4-H55 Extra Support No. 6 located next to HCD-4-H57 Extra Support No. 7 located next to HCD-4-H60 Extra Support No. 8 located next to HCD-4-H61 Extra Support No. 9 located next to HCD-4-H63 Extra Support No. 10 located between HCD-4-H69 and HCD-4-H70 Extra Support No. 11 located next to HCD-4-H78 Extra Support No. 12 located between HCD-4-H80 and HCD-4-H81 Extra Support No. 13 located next to HCD-4-H62 Extra Support No. 14 located between HCD-4-H73 and HCD-4-H75 Anchor A-168 moved 3'-1" to East 10F HCD-4-H-76 moved 1'-1" to West 10B HCD-4-H-62 moved 13" to North T&E (E-3) moved 1'-3" to South 10E HCD-4-H-59 moved 1'-6" to East HCD-4-H61 Spans Seismic Joint Evaluation		*** Yes	X	
102C	12		X	Anchor A389 Configuration not in agreement with C-897 Anchor A183 Configuration not in agreement with C877 HCD-4-H39 Structural Members not in agreement with M-190-H10E-438-3 HCD-4-H41 Welds/Configuration not in agreement with M-190-H10E-440-4 Valve A143-1 Orientation not in agreement with M-210E Envelope of Areas 8 and 9 should be used in the analysis Evaluation		*** Yes	X	

1265 212





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SYSTEM WASTEWATER TREATMENT

STRESS CALCULATION NO.	WALKDOWN PACKAGE NO.	DISCREPANCIES		OK AS IS OR DMG/ CALC CHRS REQD	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY		IF AFFECTED REFER TO REMARK NO.
		NO	YES				UNAFFECTED	AFFECTED	
102J	13			Anchor A430 Structural Member not in accordance with C-837 Extra Support No. 1 located between RCC-53-H101 and Anchor A429  10B-RCC-53-H104 moved 1'-4" down Anchor A430 moved 1'-11" North-West  Evaluation		Yes	X		4
102K	13			10B RCC-53-H-111 moved 1'-11" to West 10B RCC-53-H-112 moved 1'-1" to East 10B RCC-53-H-116 moved 1'-8 1/8" to East 10B RCC-53-H-126 moved 2'-2 9/16" North-East  RCC-53-H115 Spans Seismic Joint  Envelope of Areas 7, 8, & 9 need be considered  Evaluation		Yes	X		7
<p>POOR ORIGINAL</p>									

1265 215



SYSTEM SCREEN WALL AND CHLORINATION

STRESS CALCULATION NO.	WALKDOWN PACKAGE NO.	DISCREPANCIES		IF YES, DESCRIPTION OF DISCREPANCIES	OK AS IS OR DMG/ CALC CHGS REQD	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY	
		NO	YES					UNAFFECTED	AFFECTED
103A	14			Anchor A148 moved 1'-1 1/4" East					
				Evaluation	X		No	X	

1265 216

POOR ORIGINAL

SYSTEM DRAINAGE SYSTEM

STRESS CALCULATION NO.	WALKDOWN PACKAGE NO.	DISCREPANCIES		OR AS IS OR DMC/ CALC CHGS REQD	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY		IF AFFECTED REFER TO REMARK NO.						
		NO	YES				UNAFFECTED	AFFECTED							
101T	64			<p>IF YES, DESCRIPTION OF DISCREPANCIES</p> <p>Support No. 230 Configuration/ welds/clearances not in accordance with M-260-75-1</p> <p>Support No. 245 Configuration/welds/not in accordance with M-260-75-1</p> <p>Support No. 205 Configuration/welds not in accordance with M-260-75-1</p> <p>Support No. 180 Configuration/welds not in accordance with M-260-75-1</p> <p>Support No. 155 Configuration/welds/clearances not in accordance with M-260-75-1</p> <p>Support No. 125 Configuration/welds not in accordance with M-260-75-1</p> <p>Support No. 90 Welds not in accordance with M-260-74-1</p> <p>Extra Support HU-1 located next to No. 125</p> <p>Extra Support HU-2 located next to No. 180</p> <p>Extra Support HU-3 located next to No. 205</p> <p>Extra Support HU-4 located next to No. 230</p> <p>55 has been relocated to horizontal run. was X-Z Restraint. Now is X+Y Restraint</p> <p>180 moved 2'-6" West</p> <p>A-26 has been relocated to a horizontal run. Pipe configuration has changed. Dimension at H-8 changed from 6'-6" to 5'-3".</p>											
			X	Evaluation					**	Yes	X				
101Q	63			<p>Support M-25 Welds/Structural Members not in accordance with M-260-40-1</p> <p>Support M-35 Welds not in accordance with M-260-41-1</p> <p>Support M-40 Welds/Structural Members not in accordance with M-260-42-1</p> <p>Support M-45 Welds/Structural Members not in accordance with M-260-42-1</p> <p>Support M-90 not installed</p> <p>Support M-95 not installed</p> <p>Support M-105 not installed</p> <p>Support M-120 configuration/Welds not in accordance with M-260-44-1</p> <p>Support M-160 not installed</p> <p>Anchor A-1 Pipe not embedded, Anchor point missing</p> <p>Extra Support AH-4 located on 4"-MSD</p> <p>Extra Support AH-5 located on 4"-MSD</p> <p>Extra Support AH-6 located on 4"-MSD</p> <p>Extra Support AH-7 located on 4"-MSD</p> <p>Extra Support AH-8 located on 4"-MSD</p> <p>Extra Support AH-9 located on 4"-MSD</p> <p>(Continued)</p>											

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SYSTEM STATION AND INSTRUMENT AIR

STRESS CALCULATION NO.	WALKDOWN PACKAGE NO.	DISCREPANCIES		IF YES, DESCRIPTION OF DISCREPANCIES	OK AS IS OR DMG/ CALC CHGS REQ'D	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY		IF AFFECTED REFER TO REMARK NO.
		NO	YES					UNAFFECTED	AFFECTED	
128A	16			Seismic Boundary location not in accordance with N-215  Support 15 BCD-30 E1 not included in the analysis Support 15 BCD-30 E2 not included in the analysis  Evaluation			** Yes		X	3

1265 218

SYSTEM: VENT HEADER

STRESS CALCULATION NO.	WALKDOWN PACKAGE NO.	DISCREPANCIES			OK AS IS OR ENG/ CALC CHGS REQD	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY		IF AFFECTED REFER TO REMARK NO.	
		NO	YES	IF YES, DESCRIPTION OF DISCREPANCIES				UNAFFECTED	AFFECTED		
124A	47		X	HSC-29-H17 Welds not in accordance with N-190-E38-2916-3 HSC-29-H20 Configuration not in accordance with N-190-E38-2919-2 HSC-29-H21 Configuration not in accordance with N-190-E38-2920-2 HSC-29-H22 Configuration not in accordance with N-190-E38-2921-2 HSC-29-H32 Welds not in accordance with N-190-E38-2931-2 HSC-29-H22 moved 12 1/2" South HSC-29-H22 moved 19" South Length of pipe HSC-27 (G-8) shortened to 2'-3"					**		
<p><b>POOR ORIGINAL</b></p>											
<p>1265 219</p>											

# POOR ORIGINAL

SYSTEM DRAINAGE SYSTEM

STRESS CALCULATION NO.	WALKDOWN PACKAGE NO.	DISCREPANCIES		IF YES, DESCRIPTION OF DISCREPANCIES	OK AS IS OR DMG/ CALC CRCS REQD	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY	
		NO	YES					UNAFFECTED	AFFECTED
101Q	63		X	No Anchor at D.P. 260 Connection for D.P. 225 has been relocated Connection for D.P. 210 has been relocated No Hangers at D.P.s 90, 95, 105 and 160 Dimension 2'-2" at G-8 is 20'-5" on math model Dimension 14'-6" at H58 is 15'-3" on math model  Evaluation			** Yes	X	
101K	62		X	Anchor A-1 Structural Number not in accordance with M-260-34-1 Anchor A-2 Structural Number not in accordance with M-260-34-1 H35 Configuration not in accordance with M-260-35-1 Extra Hanger (E-102) located on 4"-LGE next to Anchor A-2 Extra Hanger (E-103) located on 4"-LGE below slab at El. 610'-0" Extra Hanger (E-104) located on 4"-LGE between Hanger 35 and slab at El. 595'-0" Extra Hanger (E-105) located on 4"-LGE below floor slab at El. 595'-0"			** Yes	X	
101L	62		X	Extra Hanger (E-106) located on 4"-LGE below floor slab at El. 623'-0" Hanger 45 Extra Hanger (E-107) located on 4"-LGE between floor slab at El. 614'-0" and Hanger 35 Extra Hanger (E-108) located on 4"-LGE between floor slab at El. 603'-0" and Hanger 35 Extra Hanger (E-100) located on 4"-LGE between Anchor A-1 and penetration C-22 A-1 moved 2'-6" South D.P. 15 doesn't show hanger 45 moved 1'-10" up			** Yes	X	
101P	62		X	Two Supports are missing at D.P. 20 & 40  Evaluation			** Yes	X	

1265 220

IE BULLETIN 79-14 DESCRIPTION OF INSPECTION RESULTS

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 BY Wright DATE 04/13/79  
 CHECKED Cuf DATE 04/13/79

SYSTEM DRAINAGE SYSTEM

STRESS CALCULATION NO.	TALKDOWN PACKAGE NO.	DISCREPANCIES		IF YES, DESCRIPTION OF DISCREPANCIES	OK AS IS OR ENG/ CALC CRCS REQD	CORRECT TO ORIGINAL DESIGN	ANALYSIS ACQUIRED	SYSTEM OPERABILITY	
		NO	YES					UNAFFECTED	AFFECTED
101M	62		X	Anchor A-1 Welds not in accordance with M-260-16-1 Anchor A-2 Welds not in accordance with M-260-17-1 Anchor A-3 not installed E70 Clearances not in accordance with M-260-95-1 W75 Configuration not in accordance with M-260-96-1 H105 Configuration not in accordance with M-260-82-1 H115 Configuration not in accordance with M-260-83-1 H150 Configuration not in accordance with M-260-83-1 Extra Hanger (E-1) located on 4"-LGE next to Hanger 30 Extra Hanger (E-2) located on 4"-LGE next to Hanger 30 Extra Hanger (E-3) located on 4"-LGE next to Hanger 30 Extra Hanger (E-4) located on 4"-LGE between Hangers 30 & 40 Extra Hanger (E-5) located on 4"-LGE between Hangers 75 & 105 Extra Hanger (E-6) located on 4"-LGE between Hangers 105 & 115 Extra Hanger (E-7) located on 4"-LGE between Hangers 105 & 115 Extra Hanger (E-9) located on 4"-LGE between Hanger 150 and penetration C-20 Extra Hanger (E-8) located on 4"-LGE between Hangers 125 & 150 Extra Hanger (E-10) located on 4"-LGE next to Anchor A-1 Extra Hanger (E-11) located on 4"-LGE next to Hanger 75 D.P. 40 moved 2'-0" South A-2 moved 1'-4" South 115 moved 1'-11" South 125 moved 1'-2" South Evaluation				** Yes	X
101N	62		X	Anchor A-1 Configuration not in accordance with M-260-101-1 H50 Configuration not in accordance with M-260-100-1 Extra Hanger (E-12) located on 4"-LGE next to Hanger 35 Extra Hanger (E-13) located on 4"-LGE between Hanger 50 and Anchor A-1 A-3 moved 3'-2" North Evaluation				** Yes	X
1010	62		X	Penetration No. C26 minimum clearance is 1" Anchor A-1 Configuration/Structural member not in accordance with M-260-38-1 Extra Hanger (E-110) located on 4"-LGE next to Anchor A-1 A-1 moved 1'-7" North Evaluation				** Yes	X

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SYSTEM DRAINAGE SYSTEM

STRESS CALCULATION NO.	WALKDOWN PACKAGE NO.	DISCREPANCIES		IF YES, DESCRIPTION OF DISCREPANCIES	OK AS IS OR DMG/ CALC CHGS REQR	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY	
		NO	YES					UNAFFECTED	AFFECTED
101B	65		X	Piping installation not in accordance with M-180 (P-1) Hanger No. 30 welds not in accordance with M-260-5-1 Hanger No. 45 welds not in accordance with M-260-6-1 Hanger No. 155 welds not in accordance with M-260-2-1 Hanger No. 170 welds not in accordance with M-260-3-1 Extra Hanger UH-1 located next to Hanger No. 30 Extra Hanger UH-2 located next to Hanger No. 30 Extra Hanger UH-3 located next to Hanger No. 30 Extra Hanger UH-4 located next to Hanger No. 45 Extra Hanger UH-5 located next to Hanger No. 45 Extra Hanger UH-6 located next to Hanger No. 70 Extra Hanger UH-7 located next to Hanger No. 70 Extra Hanger UH-8 located next to Hanger No. 70 Extra Hanger UH-9 located next to Hanger No. 70 Extra Hanger UH-10 located next to Anchor A-1 Support at 30 moved 22" West Support at 155 moved 14 1/2" North  Evaluation				Yes	X
101C	65		X	Hanger No. 25 welds not in accordance with M-260-84-1 Hanger No. 40 welds not in accordance with M-260-85-1 Hanger No. 70 welds not in accordance with M-260-87-1 Extra Hanger UH-11 located next to Hanger No. 70 Extra Hanger UH-12 located next to Hanger No. 65 Extra Hanger UH-13 located next to Hanger No. 95 Extra Hanger UH-14 located next to Hanger No. 95 Extra Hanger UH-15 located next to Hanger No. 95 Extra Hanger UH-16 located next to Hanger No. 40 Extra Hanger UH-17 located next to Hanger No. 40 Extra Hanger UH-18 located next to Hanger No. 25 Extra Hanger UH-19 located next to Hanger No. 25 Extra Hanger UH-48 located next to Hanger No. 25 Extra Hanger UH073 located next to Hanger No. 95  Evaluation				Yes	X

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SYSTEM DRAINAGE SYSTEM

STRESS CALCULATION NO.	WALKDOWN PACKAGE NO.	DISCREPANCIES		OK AS IS OR DMG/ CALC CRCS REQD	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY		
		NO	YES				UNAFFECTED	IF AFFECTED REFER TO REMARK NO.	
1017 Cont'd.	65								
				IF YES, DESCRIPTION OF DISCREPANCIES  Hanger No. 375 weld not in accordance with M-260-110-1 Hanger No. 380 configuration not in accordance with M-260-69-1 Hanger No. 385 welds/configuration not in accordance with M-260-111-1 Hanger No. 405 welds not in accordance with M-260-69-1 Hanger No. 415 welds not in accordance with M-260-69-1 Hanger No. 425 welds not in accordance with M-260-69-1 Hanger No. 435 welds not in accordance with M-260-69-1 Hanger No. 450 welds not in accordance with M-260-70-1 Hanger No. 485 welds not in accordance with M-260-70-1  Extra Hanger UH-57 located next to Anchor A-2 Extra Hanger UH-58 located next to Anchor A-2 Extra Hanger UH-59 located next to Hanger No. 100 Extra Hanger UH-60 located next to Hanger No. 100 Extra Hanger UH-61 located next to Hanger No. 115 Extra Hanger UH-62 located next to Hanger No. 115 Extra Hanger UH-63 located next to Hanger No. 115 Extra Hanger UH-64 located next to Hanger No. 250 Extra Hanger UH-65 located next to Hanger No. 385 Extra Hanger UH-66 located next to Hanger No. 155 Extra Hanger UH-67 located next to Hanger No. 170 Extra Hanger UH-68 located next to Hanger No. 185 Extra Hanger UH-69 located next to Hanger No. 305 Extra Hanger UH-70 located next to Hanger No. 220 Extra Hanger UH-71 located next to Hanger No. 225  Support at 225 moved 3'-9" North Support at 220 moved 2'-9" North Support at 205 moved 2'-7" North Support at 185 moved 2'-0" West Support at 155 moved 1'-7" West					
		X					** Yes	X	

Evaluation

1265 224

**POOR ORIGINAL**

SYSTEM DRAINAGE SYSTEM

STRESS CALCULATION NO.	HAZARD PACKAGE NO.	DISCREPANCIES		IF YES, DESCRIPTION OF DISCREPANCIES	OK AS IS OR DRG/ CALC CRGS REQD	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY	
		NO	YES					UNAFFECTED	AFFECTED
1011	65			Piping Installation not in accordance with M-180 (P-8) Hanger No. 25 welds/configuration not in accordance with M-260-25-1 Hanger No. 40 welds/configuration not in accordance with M-260-25-1 Hanger No. 55 welds not in accordance with M-260-25-1 Hanger No. 75 welds/configuration not in accordance with M-260-26-1 Hanger No. 90 configuration not in accordance with M-260-26-1 Hanger No. 110 configuration not in accordance with M-260-26-1 Hanger No. 130 structural member not in accordance with M-260-28-2 Hanger No. 135 configuration not in accordance with M-260-61-1 Hanger No. 145 structural member not in accordance with M-260-28-2 Hanger No. 175 structural member not in accordance with M-260-28-2 Hanger No. 190 structural member not in accordance with M-260-28-2 Hanger No. 235 welds/configuration not in accordance with M-260-61-1 Hanger No. 250 welds not in accordance with M-260-27-1 Hanger No. 270 welds not in accordance with M-260-27-1 Hanger No. 285 weld/configuration not in accordance with M-260-27-1 Hanger No. 315 welds not in accordance with M-260-29-1 Hanger No. 325 welds not in accordance with M-260-30-1 Hanger No. 355 welds/configuration not in accordance with M-260-112-1 Extra Hanger UH-29 located next to Hanger No. 450 Extra Hanger UH-30 located next to Hanger No. 450 Extra Hanger UH-31 located next to Hanger No. 450 Extra Hanger UH-32 located next to Hanger No. 485 Extra Hanger UH-33 located next to Hanger No. 425 Extra Hanger UH-34 located next to Hanger No. 425 Extra Hanger UH-35 located next to Hanger No. 415 Extra Hanger UH-36 located next to Hanger No. 405 Extra Hanger UH-37 located next to Hanger No. 285 Extra Hanger UH-38 located next to Hanger No. 270 Extra Hanger UH-39 located next to Hanger No. 325 Extra Hanger UH-40 located next to Hanger No. 325 Extra Hanger UH-41 located next to Hanger No. 270 Extra Hanger UH-42 located next to Hanger No. 250					

CONTINUED

1265.225

SYSTEM DRAINAGE SYSTEM

STRESS CALCULATION NO.	WALKDOWN PACKAGE NO.	DISCREPANCIES		IF YES, DESCRIPTION OF DISCREPANCIES	OK AS IS OR DMG/ CALC CHGS REQ'D	CORRECT TO ORIGINAL DESIGN	ANALYSIS REQUIRED	SYSTEM OPERABILITY				
		NO	YES					UNAFFECTED	AFFECTED	IF AFFECTED REFER TO REMARK NO.		
1011 Cont'd	65			Extra Hanger UH-43 located next to Hanger No. 90 Extra Hanger UH-44 located next to Hanger No. 55 Extra Hanger UH-45 located next to Hanger No. 55 Extra Hanger UH-46 located next to Hanger No. 40 Extra Hanger UH-47 located next to Hanger No. 25 Extra Hanger UH-49 located next to Hanger No. 375 Extra Hanger UH-50 located next to Hanger No. 385 Extra Hanger UH-51 located next to Hanger No. 385 Extra Hanger UH-52 located next to Hanger No. 175 Extra Hanger UH-53 located next to Hanger No. 175 Extra Hanger UH-54 located next to Hanger No. 175 Extra Hanger UH-55 located next to Hanger No. 190 Extra Hanger UH-56 located next to Anchor No. A-1 Extra Hanger UH-72 located next to Hanger No. 130 Extra Hanger UH-74 located next to Hanger No. 110 Extra Hanger UH-75 located next to Hanger No. 90 Extra Hanger UH-76 located next to Hanger No. 145 Support at 25 moved 1'-5" East Support at 40 moved 3'-10" North Support at 175 moved 3'-0" down Support at 190 moved 1'-4" down								
			X	Evaluation				Yes				X

**POOR ORIGINAL**

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