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PACIFIC GAS AND ELECTRIC COMPANY

PG&E — 77 BEALE STREET • SAN FRANCISCO, CALIFORNIA 94106 • (415) 781-4211 • TWX 910-372-6587

J. O. SCHUYLER
VICE PRESIDENT
NUCLEAR POWER GENERATION

February 29, 1984

PGandE Letter No.: DCL-84-081

Mr. John B. Martin, Regional Administrator
U. S. Nuclear Regulatory Commission, Region V
1450 Maria Lane, Suite 210
Walnut Creek, CA 94596-5368

Re: Docket No. 50-275, OL-DPR-76
Diablo Canyon Unit 1
SSER 21 - Allegation 99, Bostrom-Bergen Metal Products

Dear Mr. Martin:

Enclosed is PGandE's Materials Sampling Program interim report for Bostrom-Bergen/Meddco-Metals. This interim report provides a status of PGandE's investigation and sampling program results to date concerning the allegations made by former employees of Bostrom-Bergen/Meddco Metals, a structural steel fabricator for Diablo Canyon.

Kindly acknowledge receipt of this material on the enclosed copy of this letter and return it in the enclosed addressed envelope.

Sincerely,

J. O. Schuyler

Enclosure

cc: T. W. Bishop
D. G. Eisenhut
H. E. Schierling
Service List

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ENCLOSURE

INTERIM REPORT OF BOSTROM-BERGEN/MEDDCO-METAL MATERIALS SAMPLING PROGRAM

Introduction

Investigation into the allegations regarding quality practices of Bostrom-Bergen/Meddco-Metal (BB/MM) is currently being conducted. The scope and status of this documentation review are described in PGandE Letter DCL-84-051, dated February 10, 1984. To provide additional confidence in the adequacy of the materials supplied by BB/MM, PGandE has initiated a field sampling program which is described herein.

Bostrom-Bergen and its subsidiary, Meddco Metals, supplied certain materials to the Diablo Canyon Power Plant (Diablo Canyon) from 1969 to the present. These materials are best described as miscellaneous metals that were used in a variety of applications and include both individual pieces and fabricated assemblies.

A preliminary plan for reinspecting the BB/MM material was prepared and presented to the NRC's Region V personnel on February 23, 1984. This plan, which is attached as Appendix A to this submittal, has been finalized and is currently being used to direct the reinspection of a sample of BB/MM material installed at Diablo Canyon. The plan may be modified upon further review. This submittal provides an interim report on the results of the reinspections performed to date.

Scope

Items that are being reinspected were selected by reviewing all shop drawings and selected purchase orders involving BB/MM material shipped to the jobsite since 1969. A complete list of all major BB/MM supplied items including their material type and safety application will be provided in a final report.

The specific items selected for reinspection were from Class I components which would demonstrate that special steels were used at locations where they were required and that special fabrication techniques (e.g., heavy welding) were adequately performed. The selected items are listed in Table 1.

In addition to the items described above, four bulk material items were added to the sample and are also listed in Table 1. These samples are from the Class I bulk materials which a former Bostrom-Bergen inspector alleged that he falsely documented inspections. As addressed in Section 4.1 of the report

attached to the PGandE February 10 letter (DCL-84-051), the documentation associated with all of the materials (Class I and non-Class I) inspected by this Bostom-Bergen employee was reviewed.

A few significant items supplied by BB/MM are excluded from this reinspection program. These items were the subject of other recent reinspections and include pipe rupture restraints, the structure enclosing the condensate polishing system and the reverse osmosis system components. Summaries of these previous reviews, which found the subject materials to be acceptable, are provided in Appendix C to this submittal.

The material reinspections now being performed can be grouped into two categories: material verification and fabrication verification. Material verification is being accomplished by hardness testing, which indirectly measures the material's tensile strength. For cases in which further investigation is necessary, analysis of the material's elemental composition will be performed.

The second category, fabrication verification, is being accomplished by (1) general inspections, (2) visual weld inspections, and (3) NDE weld inspections. General inspections compare existing materials to shop drawings to determine geometrical and dimensional conformance. Visual weld inspections are performed on all sampled (shop) welds performed by BB/MM and follow the AWS criteria. Appendix B to this submittal contains the visual weld inspection criteria being used in this reinspection. For items requiring heavy shop welds (these are identified in Table 1), NDE weld inspections are accomplished as follows; documentation of NDE inspections by an independent laboratory are reviewed. If acceptable NDE reports are not available, new NDE inspections will be performed. No new NDE inspections have yet been required.

To date, most of the selected samples have been completely reinspected. Of the data compiled in these reinspections, most has been reduced and evaluated.

Results to Date

Table 1 contains the reinspection results compiled for each item sampled. While the sampling has not been completed, the following trends and results are apparent:

a) General inspections are finding that the existing geometries and dimensions are in conformance with the shop drawings.

b) Hardness tests are indicating that correct materials were provided.

c) Visual weld inspections are indicating that BB/MM welding meet design requirements.

d) Records from the NDE documentation research show that full penetration welds by BB/MM are satisfactory.

e) Bulk materials identified as a result of the Bostrom-Bergen inspector's allegations are being found acceptable in the appropriate inspection categories.

The reviews addressed above and in Table 1 have not yet identified the time spans covered by the selected samples. The adequacy of the sample with respect to the time span will be determined and addressed in the Final Report. If required, additional items will be added to the sample and will be included in the final report.

Summary

The material and fabrication reinspections performed to date indicate that the BB/MM supplied materials are in conformance with requirements. Based upon these results it is expected that the 10 to 15 percent of the sample items which still remain to be reinspected, will not alter this conclusion. Thus these reinspections, in combination with the previous reinspections addressed in Appendix C, provide assurance that the BB/MM materials furnished to Diablo Canyon are acceptable. After completion of the reinspection effort, a final report will be prepared and submitted to the NRC.

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TABLE 1

Bostrom-Bergen/Meddco Metal Items Sampled and Reinspection Results

SAMPLED ITEM			MATERIAL VERIFICATION					FABRICATION VERIFICATION						
General Description	Piece Description	BB/MM Piece Mark	Brinell Hardness Reading	Tensile Strength	Results	Spectrol Analysis	Results	General Conformance	Results	Visual Weld Inspection	Results	NDE	Results	Remarks
Containment Interior Embed Plates	Unit #1 LP #1, El. 94'-0" Pipe Rupture Restraint Embed (A-36)	B343	120	59 ksi	OK	(2)	-	(1)	-	(1)	-	(1)	-	No exposed shop weld on this piece.
	Unit #1 LP #1, El. 94'-0" Pipe Rupture Restraint Embed (A-36)	H343	118	59 ksi	OK	(2)	-	(1)	-	(1)	-	(1)	-	No exposed shop weld on this piece.
	Unit #1 LP #3, El. 94'-0" Pipe Rupture Restraint Embed (A-36)	M344	129	66 ksi	OK	(2)	-	(1)	-	(1)	-	(1)	-	No exposed shop weld on this piece.
	Unit #1 LP #4, El. 94'-0" Pipe Rupture Restraint Embed (A-36)	N344	126	62 ksi	OK	(2)	-	(1)	-	(1)	-	(1)	-	No exposed shop weld on this piece.
	Unit #1 LP #4, El. 94'-0" Pipe Rupture Restraint Embed (A-36)	K343	122	61 ksi	OK	(2)	-	(1)	-	(1)	-	(1)	-	No exposed shop weld on this piece.
	Unit #1 LP #2, Steam Generator Lateral Support at El. 115'-0" (A-36)	B221	147	72 ksi	OK	(2)	-	(1)	-	(1)	-	(1)	-	No exposed shop weld on this piece.
	Unit #1 LP #1, Steam Generator Lateral Support at El. 115'-0" (A-36)	B221-A	155	76 ksi	OK	(2)	-	(1)	-	(1)	-	(1)	-	No exposed shop weld on this piece.

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TABLE 1

Bostrom-Bergen/Meddco Metal Items Sampled and Reinspection Results

SAMPLED ITEM			MATERIAL VERIFICATION				FABRICATION VERIFICATION						
General Description	Piece Description	BB/MM Piece Mark	Brinell Hardness Reading	Tensile Strength	Results	Spectrol Analysis	Results	General Conformance	Results	Visual Weld Inspection	Results	NDE	Results	Remarks
Containment Interior Anchor Bolts	Unit #1 LP#1, El. 94'-0" Pipe Rupture Restraint (A490)	H343 mh	359	-	OK	(2)	-	X	OK	(1)	-	(1)	-	
	Unit #1 LP#1, El. 94'-0" Pipe Rupture Restraint (A490)	H343 A-mh	347	-	OK	(2)	-	X	OK	(1)	-	(1)	-	
	Unit #1 LP#1, El. 94'-0" Pipe Rupture Restraint (A490)	B343 mk	347	-	OK	(2)	-	X	OK	(1)	-	(1)	-	
	Unit #1 LP#1, El. 94'-0" Pipe Rupture Restraint (A490)	B343 A-mk	361	-	OK	(2)	-	X	OK	(1)	-	(1)	-	
	Unit #1 LP#1, El. 94'-0" Pipe Rupture Restraint (A490)	C225	350	-	OK	(2)	-	X	OK	(1)	-	(1)	-	
	Unit #1 LP#1, El. 94'-0" Pipe Rupture Restraint (A490)	C225 -A	327	-	OK	(2)	-	X	OK	(1)	-	(1)	-	
	Unit #1 LP#1, El. 94'-0" Steam Generator Vertical Support (A490)	A220 -1	354	-	OK	(2)	-	X	OK	(1)	-	(1)	-	
	Unit #1 LP#1, El. 94'-0" Steam Generator Vertical Support (A490)	A220 -1A	362	-	OK	(2)	-	X	OK	(1)	-	(1)	-	

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TABLE 1

Bostrom-Bergen/Meddco Metal Items Sampled and Reinspection Results

SAMPLED ITEM			MATERIAL VERIFICATION					FABRICATION VERIFICATION						
General Description	Piece Description	BB/KM Piece Mark	Brinell Hardness Reading	Tensile Strength	Results	Spectrol Analysis	Results	General Conformance	Results	Visual Weld Inspection	Results	NDE	Results	Remarks
Containment Intarior Anchor Bolts	Unit #1 LP#1, El. 94'-0" Steam Generator Vertical Support (A490)	A220 -2	334	-	OK	(2)	-	X	OK	(1)	-	(1)	-	
	Unit #1 LP#1, El. 94'-0" Steam Generator Vertical Support (A490)	A220 -2A	(3)			(3)		X	OK	(1)	-	(1)	-	
	Unit #1 LP#1, El. 94'-0" Steam Generator Vertical Support (A490)	A220 -3	354	-	OK	(2)	-	X	OK	(1)	-	(1)	-	
	Unit #1 LP#1, El. 94'-0" Steam Generator Vertical Support (A490)	A220 -3A	321	-	OK	(2)	-	X	OK	(1)	-	(1)	-	
	Unit #1 LP#1, El. 94'-0" Steam Generator Vertical Support (A490)	A220 -4	325	-	OK	(2)	-	X	OK	(1)	-	(1)	-	
	Unit #1 LP#1, El. 94'-0" Steam Generator Vertical Support (A490)	A220 -4A	365	-	OK	(2)	-	X	OK	(1)	-	(1)	-	
	Unit #1 LP#2, El. 94'-0" Pipe Rupture Restraint (A490)	B343 -mk	354	-	OK	(2)	-	X	OK	(1)	-	(1)	-	

TABLE 1

Bostrom-Bergen/Meddco Metal Items Sampled and Reinspection Results

SAMPLED ITEM			MATERIAL VERIFICATION					FABRICATION VERIFICATION						
General Description	Piece Description	BB/KM Piece Mark	Brinell Hardness Reading	Tensile Strength	Results	Spectrol Analysis	Results	General Conformance	Results	Visual Weld Inspection	Results	NDE	Results	Remarks
Containment Interior Anchor Bolts	Unit #1 LP#2, El. 94'-0" Pipe Rupture Restraint (A490)	6343 -A-mk	330	-	OK	(2)	-	X	OK	(1)	-	(1)	-	
	Unit #1 LP#2, El. 94'-0" Pipe Rupture Restraint (A490)	B343 -1-mk	341	-	OK	(2)	-	X	OK	(1)	-	(1)	-	
	Unit #1 LP#2, El. 94'-0" Pipe Rupture Restraint (A490)	B343 -1A-mk	333	-	OK	(2)	-	X	OK	(1)	-	(1)	-	
	Unit #1 LP#2, El. 94'-0" Pipe Rupture Restraint (A490)	K344 -mk	342	-	OK	(2)	-	X	OK	(1)	-	(1)	-	
	Unit #1 LP#2, El. 94'-0" Pipe Rupture Restraint (A490)	K344 -A-mk	360	-	OK	(2)	-	X	OK	(1)	-	(1)	-	
	Unit #1 LP#2, El. 94'-0" Pipe Rupture Restraint (A490)	B225 -A	335	-	OK	(2)	-	X	OK	(1)	-	(1)	-	
	Unit #1 LP#2, El. 94'-0" Pipe Rupture Restraint (A490)	B225 -B	328	-	OK	(2)	-	X	OK	(1)	-	(1)	-	
	Unit #1 LP#2, El. 94'-0" Pipe Rupture Restraint (A490)	B225 -C	338	-	OK	(2)	-	X	OK	(1)	-	(1)	-	

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TABLE 1

Bostrom-Bergen/Meddco Metal Items Sampled and Reinspection Results

SAMPLED ITEM			MATERIAL VERIFICATION					FABRICATION VERIFICATION						
General Description	Piece Description	BB/MM Piece Mark	Brinell Hardness Reading	Tensile Strength	Results	Spectrol Analysis	Results	General Conformance	Results	Visual Weld Inspection	Results	NDE	Results	Remarks
Containment Interior Anchor Bolts	Unit #1 LP#2, El. 94'-0" Pipe Rupture Restraint (A490)	B225-D	334	-	OK	(2)	-	X	OK	(1)	-	(1)	-	
	Unit #1 LP#2, El. 94'-0" Pipe Rupture Restraint (A490)	B225-E	333	-	OK	(2)	-	X	OK	(1)	-	(1)	-	
	Unit #1 LP#2, El. 94'-0" Pipe Rupture Restraint (A490)	B225-F	338	-	OK	(2)	-	X	OK	(1)	-	(1)	-	
	Unit #1 LP#2, El. 94'-0" Steam Generator Vertical Support (A490)	A220	317	-	OK	(2)	-	X	OK	(1)	-	(1)	-	
	Unit #1 LP#2, El. 94'-0" Steam Generator Vertical Support (A490)	A220-A	(3)			(3)		X	OK	(1)	-	(1)	-	
	Unit #1 LP#2, El. 94'-0" Steam Generator Vertical Support (A490)	A220-I	(3)			(3)		X	OK	(1)	-	(1)	-	
	Unit #1 LP#2, El. 94'-0" Steam Generator Vertical Support (A490)	A220-IA	323	-	OK	(2)	-	X	OK	(1)	-	(1)	-	

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TABLE 1

Bostrom-Bergen/Meddco Metal Items Sampled and Reinspection Results

SAMPLED ITEM			MATERIAL VERIFICATION				FABRICATION VERIFICATION						
General Description	Piece Description	BB/MM Piece Mark	Brinell Hardness Reading	Tensile Strength	Results	Spectrol Analysis	Resul's	General Conformance	Results	Visual Weld Inspection	Results	NDE	Results	Remarks
Containment Interior Anchor Bolts	Unit #1 LP#2, El. 94'-0" Steam Generator Vertical Support (A490)	A220 -2	315	--	OK	(2)	-	X	OK	(1)	-	(1)	-	
	Unit #1 LP#2, El. 94'-0" Steam Generator Vertical Support (A490)	A220 -2A	322	-	OK	(2)	-	X	OK	(1)	-	(1)	-	
	Unit #1 LP#2, El. 94'-0" Steam Generator Vertical Support (A490)	A220 -3	(3)			(3)		X	OK	(1)	-	(1)	-	
	Unit #1 LP#2, El. 94'-0" Steam Generator Vertical Support (A490)	A220 -3A	324	-	OK	(2)	-	X	OK	(1)	-	(1)	-	
	Unit #1 LP#3, El. 94'-0" Steam Generator Vertical Support (A490)	A220	(3)			(3)		X	OK	(1)	-	(1)	-	
	Unit #1 LP#3, El. 94'-0" Steam Generator Vertical Support (A490)	A220 -A	(3)			(3)		X	OK	(1)	-	(1)	-	
	Unit #1 LP#3, El. 94'-0" Steam Generator Vertical Support (A490)	A220 -1	326	-	OK	(2)	-	X	OK	(1)	-	(1)	-	

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TABLE 1

Bostrom-Bergen/Meddco Metal Items Sampled and Reinspection Results

SAMPLED ITEM			MATERIAL VERIFICATION					FABRICATION VERIFICATION						
General Description	Piece Description	BB/MM Piece Mark	Brinell Hardness Reading	Tensile Strength	Results	Spectrol Analysis	Results	General Conformance	Results	Visual Weld Inspection	Results	NDE	Results	Remarks
Containment Interior Anchor Bolts	Unit #1 LP#3, El. 94'-0" Steam Generator Vertical Support (A490)	A220 -1A	(3)			(3)		X	OK	(1)	-	(1)	-	
	Unit #1 LP#3, El. 94'-0" Steam Generator Vertical Support (A490)	A220 -2	325	-	OK	(2)	-	X	OK	(1)	-	(1)	-	
	Unit #1 LP#3, El. 94'-0" Steam Generator Vertical Support (A490)	A220 -2A	(3)			(3)		X	OK	(1)	-	(1)	-	
	Unit #1 LP#3, El. 94'-0" Steam Generator Vertical Support (A490)	A220 -3	359	-	OK	(2)	-	X	OK	(1)	-	(1)	-	
	Unit #1 LP#3, El. 94'-0" Steam Generator Vertical Support (A490)	A220 -3A	360	-	OK	(2)	-	X	OK	(1)	-	(1)	-	
	Unit #1 LP#4, El. 94'-0" Steam Generator Vertical Support (A490)	A220	(3)			(3)		X	OK	(1)	-	(1)	-	
	Unit #1 LP#4, El. 94'-0" Steam Generator Vertical Support (A490)	A220 -A	(3)			(3)		X	OK	(1)	-	(1)	-	

TABLE 1

Bostrom-Bergen/Meddco Metal Items Sampled and Reinspection Results

SAMPLED ITEM			MATERIAL VERIFICATION					FABRICATION VERIFICATION						
General Description	Piece Description	BB/MM Piece Mark	Brinell Hardness Reading	Tensile Strength	Results	Spectrol Analysis	Results	General Conformance	Results	Visual Weld Inspection	Results	NDE	Results	Remarks
Containment Interior Anchor Bolts	Unit #1 LP#4, El. 94'-0" Steam Generator Vertical Support (A490)	A220 -1	314	-	OK	(2)	-	X	OK	(1)	-	(1)	-	
	Unit #1 LP#4, El. 94'-0" Steam Generator Vertical Support (A490)	A220 -1A	(3)			(3)		X	OK	(1)	-	(1)	-	
	Unit #1 LP#4, El. 94'-0" Steam Generator Vertical Support (A490)	A220 -2	(3)			(3)		X	OK	(1)	-	(1)	-	
	Unit #1 LP#4, El. 94'-0" Steam Generator Vertical Support (A490)	A200 -2A	(3)			(3)		X	OK	(1)	-	(1)	-	
	Unit #1 LP#4, El. 94'-0" Steam Generator Vertical Support (A490)	A200 -3	(3)			(3)		X	OK	(1)	-	(1)	-	
	Unit #1 LP#4, El. 94'-0" Steam Generator Vertical Support (A490)	A200 -3A	(3)			(3)		X	OK	(1)	-	(1)	-	

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TABLE 1

Bostrom-Bergen/Meddco Metal Items Sampled and Reinspection Results

SAMPLED ITEM			MATERIAL VERIFICATION					FABRICATION VERIFICATION						
General Description	Piece Description	BB/MM Piece Mark	Brinell Hardness Reading	Tensile Strength	Results	Spectrol Analysis	Results	General Conformance	Results	Visual Weld Inspection	Results	NDE	Results	Remarks
Containment Interior Annulus Structure Support Anchor Plates	Embedment Plate on Outer Face of Crane wall between 9 & 10 azimuth 263000' (A36)	3C-464-T	149	73 ksi	OK	(2)	-	(1)	-	(1)	-	(1)	-	No shop verification performed since there are no exposed shop welds.
	Embedment Plate on Outer Face of Crane wall at col. 10 azimuth 273030' (A36)	3C-464-U	142	70ksi	OK	(2)	-	(1)	-	(1)	-	(1)	-	No shop verification performed since there are no exposed shop welds.
Containment Interior Reactor Support Ring	Support for Unit 1 reactor vessel El. 102'-0" (A588)	-	-	-	-	-	-	-	-	-	-	X	OK	Inaccessable for inspection.
Containment Interior Steam Generator Support at El. 138' - Anchor Plates	Embedment Plate for Loop #1 Horizontal Snubber (A36)	A224	127	63 ksi	OK	(2)	-	(1)	-	(1)	-	(1)	-	No shop verification performed since there are no exposed shop welds
	Embedment Plate for Loop #2 Horizontal Snubber (A36)	A224-1	133	66 ksi	OK	(2)	-	(1)	-	(1)	-	(1)	-	No shop verification performed since there are no exposed shop welds.
Containment Interior Steam Generator Support at El. 138' - Anchor Bolts	Anchor Bolts for for Loop #1 S/G Horizontal Snubber (A490)	E224-A	321	-	OK	(2)	-	X	OK	(1)	-	(1)	-	

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TABLE 1

Bostrom-Bergen/Meddco Metal Items Sampled and Reinspection Results

SAMPLED ITEM			MATERIAL VERIFICATION					FABRICATION VERIFICATION						
General Description	Piece Description	BB/MM Piece Mark	Brinell Hardness Reading	Tensile Strength	Results	Spectrol Analysis	Results	General Conformance	Results	Visual Weld Inspection	Results	NDE	Results	Remarks
"	Anchor Bolts for for Loop #1 S/G Horizontal Snubber (A490)	E224 -B	(3)			(3)		X	OK	(1)	-	(1)	-	
Containment Interior Steam Generator Support at El. 138' - Anchor Bolts	Anchor Bolts for for Loop #1 S/G Horizontal Snubber (A490)	E224 -C	(3)			(3)		X	OK	(1)	-	(1)	-	
	Anchor Bolts for for Loop #1 S/G Horizontal Snubber (A490)	E224 -D	(3)			(3)		X	OK	(1)	-	(1)	-	
	Anchor Bolts for for Loop #2 S/G Horizontal Snubber (A490)	D224 -A	307	-	OK	(2)	-	X	OK	(1)	-	(1)	-	
	Anchor Bolts for for Loop #2 S/G Horizontal Snubber (A490)	D224 -B	319	-	OK	(2)	-	X	OK	(1)	-	(1)	-	
	Anchor Bolts for for Loop #2 S/G Horizontal Snubber (A490)	D224 -C	298	-	OK	(2)	-	X	OK	(1)	-	(1)	-	
	Anchor Bolts for for Loop #2 S/G Horizontal Snubber (A490)	D224 -D	(3)			(3)	-	X	OK	(1)	-	(1)	-	

0385d/

TABLE 1

Bostrom-Bergen/Meddco Metal Items Sampled and Reinspection Results

SAMPLED ITEM			MATERIAL VERIFICATION					FABRICATION VERIFICATION						
General Description	Piece Description	BB/MM Piece Mark	Brinell Hardness Reading	Tensile Strength	Results	Spectrol Analysis	Results	General Conformance	Results	Visual Weld Inspection	Results	NDE	Results	Remarks
Containment Interior Reactor Missile Shield	Horizontal Support Beam - West side (A36)	A-1032	130	65 ksi	OK	(2)	-	X	OK	X	OK	(2)	-	
Containment Interior Annulus Structure	Tangential Beam 5 - 6 (A36)	A16	125	63 ksi	OK	(2)	-	X	OK	X	OK	(2)	-	
	Radial Beam at 5 (A36)	C16	113	57 ksi	OK	(2)	-	X	OK	X	OK	(2)	-	
	Radial Beam at 6 (A36)	A14	123	61 ksi	OK	(2)	-	X	OK	X	OK	(2)	-	
Auxiliary Building Embedment Plates	Embed Plate in Floor Toc El 115' L-R, 15-15$\frac{7}{}$ (A36)	A309	132	66 ksi	OK	(2)	-	(1)	-	(1)	-	(1)	-	No exposed shop weld on this piece.
	Embed Plate in Floor Toc El 115' L-N, 15-15$\frac{7}{}$ (A36)	B309	123	62 ksi	OK	(2)	-	(1)	-	(1)	-	(1)	-	No exposed shop weld on this piece.
	Embed Plate in Floor Toc El 115' N-R, 15-15$\frac{7}{}$ (A36)	N4	130	65 ksi	OK	(2)	-	(1)	-	(1)	-	(1)	-	No exposed shop weld on this piece.
	Embed Plate in Wall El 85' N-R, 15$\frac{7}{}$-16$\frac{3}{}$ (A36)	S43	164	80 ksi	OK	(2)	-	(1)	-	(1)	-	(1)	-	No exposed shop weld on this piece.
	Embed Plate in Wall El 85' @ R Between 15$\frac{7}{}$-16$\frac{3}{}$ (A36)	C43	143	70 ksi	OK	(2)	-	(1)	-	(1)	-	(1)	-	

TABLE 1

Bostrom-Bergen/Meddco Metal Items Sampled and Reinspection Results

SAMPLED ITEM			MATERIAL VERIFICATION					FABRICATION VERIFICATION						
General Description	Piece Description	BB/MM Piece Mark	Brinell Hardness Reading	Tensile Strength	Results	Spectrol Analysis	Results	General Conformance	Results	Visual Weld Inspection	Results	NDE	Results	Remarks
Auxiliary Building Jet Impingement Structural Steel	Lower Half of Veritical Support Beam (A572)	A153	161	81 KSi	OK	(2)	–	X	OK	X	OK	(2)	–	
	Lower Half of Veritical Support Beam (A441)	A155	151	76 KSi	OK	(2)	–	X	OK	X	OK	X	OK	
	Horizontal Support Plate (A441)	F151	145	72 KSI	OK	(2)	–	X	OK	X	OK	(2)	–	No shop welds on this piece.
Auxiliary Building Platform 19GWI	Angle Posts Supporting Platform (A36)	A6	117	58 KSi	OK	(2)	–	X	OK	X	OK	(2)	–	Angle posts are only members with shop welds.
	Angle Posts Supporting Platform (A36)	B6	111	55 KSI	OK	(2)	–	X	OK	X	OK	(2)	–	Angle posts are only members with shop welds.
	Angle Posts Supporting Platform (A36)	C6	112	56 KSi	OK	(2)	–	X	OK	X	OK	(2)	–	Angle posts are only members with shop welds.
	Angle Posts Supporting Platform (A36)	D6	107	53 KSi	OK	(2)	–	X	OK	X	OK	(2)	–	Angle posts are only members with shop welds.
	Angle Posts Supporting Platform (A36)	F6	111	55 KSi	OK	(2)	–	X	OK	X	OK	(2)	–	Angle posts are only members with shop welds.
	Angle Posts Supporting Platform (A36)	G6	109	55 KSi	OK	(2)	–	X	OK	X	OK	(2)	–	Angle posts are only members with shop welds.

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TABLE 1

Bostrom-Bergen/Meddco Metal Items Sampled and Reinspection Results

SAMPLED ITEM			MATERIAL VERIFICATION					FABRICATION VERIFICATION						
General Description	Piece Description	BB/MM Piece Mark	Brinell Hardness Reading	Tensile Strength	Results	Spectral Analysis	Results	General Conformance	Results	Visual Weld Inspection	Results	NDE	Results	Remarks
Fuel Handling Building Embedment Plates	Ceiling Embedment Plates El 115' T-V, 15-129 (A441)	H157	126	63 KSi	OK	(2)	–	(1)	–	(1)	–	(1)	–	No exposed shop weld on this piece.
	Ceiling Embedment Plates El 115' T-V, 15-129 (A441)	H157 -A	138	68 KSi	OK	(2)	–	(1)	–	(1)	–	(1)	–	No exposed shop weld on this piece.
	Ceiling Embedment Plates El 115' T-V, 15-129 (A441)	P157	129	64 KSi	OK	(2)	–	(1)	–	(1)	–	(1)	–	No exposed shop weld on this piece.
	Ceiling Embedment Plates El 115' T-V, 15-129 (A441)	W157	130	65 KSi	OK	(2)	–	(1)	–	(1)	–	(1)	–	No exposed shop weld on this piece.
	Ceiling Embedment Plates El 115' T-V, 15-129 (A441)	AC-157	129	64 KSi	OK	(2)	–	(1)	–	(1)	–	(1)	–	No exposed shop weld on this piece.
Turbine Building CCW Heat Exchanger Barrier	Horizontal Beam El 103'-6", F-G and 14J (A572)	D49	157	79 KSi	OK	(2)	–	X	OK	X	OK	X	OK	Full penetration weld.

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TABLE 1

Bostrom-Bergen/Meddco Metal Items Sampled and Reinspection Results

SAMPLED ITEM			MATERIAL VERIFICATION					FABRICATION VERIFICATION						
General Description	Piece Description	BB/MM Piece Mark	Brinell Hardness Reading	Tensile Strength	Results	Spectrol Analysis	Results	General Conformance	Results	Visual Weld Inspection	Results	NDE	Results	Remarks
Bulk Material: Plates	1"x2-1/4"x2-1/4" Plate (A441)	G-793	153	75 ksi	OK	(2)	–	(1)	–	(1)	–	(1)	–	Currently in QC "Hold" area. To be installed in a Unit 2 pipe rupture restraint.
	1"x2-1/4"x2-1/4" Plate (A441)	G-793	169	82 ksi	OK	(2)	–	(1)	–	(1)	–	(1)	–	Currently in QC "Hold" area. To be installed in a Unit 2 pipe rupture restraint.
	1"x2-1/4"x2-1/4" Plate (A441)	G-793	154	75 ksi	OK	(2)	–	(1)	–	(1)	–	(1)	–	Currently in QC "Hold" area. To be installed in a Unit 2 pipe rupture restraint.
Bulk Material: Structural Shapes	WT 3 x 6 (A441)	B-793	142	70 ksi	OK	(2)	–	(1)	–	(1)	–	(1)	–	Currently in QC "Hold" area. To be installed in Unit 2 pipe rupture restraint B-2RR.

TABLE 1

Notes

(1) Test/inspection is not applicable to this item.

(2) Test/inspection is not necessary for this item.

(3) Test/inspection is in-progress.

(4) NDE records, from an independent testing lab, indicate that the shop welds (BB/MM welds) are acceptable. These records are on file.

(5) Hardness readings were obtained using an Equitip testing machine.

(6) "X" indicates that the test/inspection was performed for this item.

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