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November 15, 1984

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	
TEXAS UTILITIES GENERATING COMPANY, et al.	)	Docket Nos. 50-445-2 50-446-2
	)	
(Comanche Peak Steam Electric Station, Units 1 and 2)	)	

CASE'S FURTHER EVIDENCE OF A QUALITY CONTROL BREAKDOWN IN THE CONSTRUCTION, INSTALLATION AND INSPECTION OF THE STAINLESS STEEL LINER PLATE

On September 27, 1984 CASE filed a brief delineating specific quality control/quality assurance problems which it had identified through review and analysis of documentation provided during the operating license hearings on harassment and intimidation. (CASE's Evidence of a Quality Control Breakdown)

Due to the unexcused lateness of the Applicants' response to this CASE filing, CASE requested and was granted the opportunity to supplement its initial brief outlining the QC problems it had identified. It does so with this filing.

Subsequent to the September 27th filing CASE completed a more thorough document review and analysis of the regulations and industry codes and standards applicable to the stainless steel liner plate. The result of that review is attached as Exhibit 1 to this filing. This attachment delineates the breakdown of procedures regarding the stainless steel liner plates installation and inspection.

Additionally, CASE asserts that Applicant continues to mischaracterize the major issue regarding the liner plate construction, installation, and inspection.

The stainless steel liner plate was constructed, installed and inspected as an ASME (safety-related) function prior to being turned over to the non-ASME side, therefore Applicants improperly assert (apparently with the Nuclear Regulatory Commission Staff's approval) that there is no safety significance to the problems identified during construction, installation and inspection of the liner plate.

This characterization is not correct. (See NUREG-0404, Vol. 2; General Design Criteria 1, "Quality Standards and Records" of Appendix A to 10 C.F.R. 50; Reg. Guide 1.25, Reg. Guide 1.26; Reg. Guide 1.29; Reg. Guide 1.13 General Design Criteria 61; ANSI/ASME N45.2-1977, Section 2; Section 7, Section 9, Section 11; CP-QAP-11.1, Rev. 0, 1, 2, 3 and 4 Paragraphs 2.2 and 3.1)

Additionally, the Applicants' assertion that the wrong traveller was consistently used in the construction, installation and inspection of the stainless steel liners is untrue.

Exhibit 2 to this brief was obtained by CASE through its independent investigation of this matter, not through discovery in this case.

The exhibit is proof that at least in one instance the proper form, as required by CP-QAP-11.1 was used for inspection purposes. It is clear from a review of the liner plate package number 988 that the "old form" identifies the first four hold points as they were initially completed, and the "new form"

incorporates those inspections by reference to pages 2 and 3 of the traveller.

Either Mr. Brandt's testimony of September 13, 1984 was erroneous because Mr. Brandt does not know what really happened during the construction, inspection, and installation of the liner plates. Or Mr. Brandt does know what happened and has failed to disclose to the Board the location, and existence or non-existence of the rest of the proper forms. (Hearing transcript, pp. 16,047-16,052)

Conclusion

Applicant may be either ignorant or knowingly deceptive about certain irregulariteis regarding the stainless steel liner plate. Their inability or unwillingness to produce adequate, plausible explanations for the quality control breakdown of the stainless steel liner plates indicates to CASE that our worst fears are correct -- the condition of the entire structure is hopelessly indeterminate.

Respectfully submitted,

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NUCLEAR REGULATORY COMMISSION

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In the Matter of	)	
	)	
TEXAS UTILITIES GENERATING	)	
COMPANY, et al.	)	Docket Nos. 50-445-2
	)	and 50-446-2
(Comanche Peak Steam Electric	)	
Station, Units 1 and 2)	)	

CERTIFICATE OF SERVICE

By my signature below, I hereby certify that true and correct copies of CASE's Further Evidence of a Quality Control Breakdown in the Construction, Installation and Inspection of the Stainless Steel Liner Plate have been sent to the names listed below this 15th day of November, 1984, by: Express mail where indicated by *; Hand-delivery where indicated by **; and First Class Mail unless otherwise indicated.

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Exhibit 1

ANALYSIS OF LINER PLATE DOCUMENTATION

EXHIBIT 1

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PART I: MISSING HOLD POINTS:

Mandatory hold points that lack QC verification prior to completion of subsequent activities being performed violate the following Codes and Regulations:

10CFR50 Appendix B:

Criteria II: States in part that activities affecting quality are to be accomplished under suitable enviromental conditions for accomplishing the activity; which includes adequate Cleanliness; and assurance that all prerequisites for the given activity have been satisfied. The program shall take into account the need for special controls, which includes the need for verification of quality by inspection and test.

Criteria V: States that Instructions, Procedures, and Drawings shall include appropriate quantitive or acceptance criteria for determining that important activities have been satisfactorily accomplished.

ANSI/ASME N45.2-1977

Section 2: Requires that the Quality Assurance Program shall provide assurance that activities affecting quality are documented and accomplished in accordance with written instructions and procedures The program is required to assure that prerequisites for the given activities have been satisfied, and the program shall take into account the need for the verification of quality by inspection, examination or test.

Section 11: Requires that work shall not proceed beyond mandatory hold points, and work shall not proceed without the consent of the designated representative before wok continues

STEP 1: Fit-up and Cleanliness of Channel Side (Concrete Side) Welds

A large number of welds lack QC verification of the required fit-up and cleanliness of backside (concrete side) welds. The failure to perform this function leaves the quality of these welds indeterminate. The S/S Liner has been installed and it is now impossible to re-examine or test these welds to determine their acceptability.

NDT chits have been produced in an effort to show the fit-up/cleanliness was performed, but there are facts that indicate the use of the chits is not sufficient to show this step was performed, since they may have been intended for verification of other steps signed off on the traveler.

1. Many of the NDT chits produced to verify that step 1 was performed have the same date and signature that was signed off on the traveler to verify the performance of step 3 and/or 2. If all these steps had been verified the same day by the same QC inspector they would all have been signed off on the traveler at the same time, but step 1 was left blank. It cannot be assumed that the chits included the verification of step 1 since the inspector did not sign that step off on the traveler.

   a. There was no reference on the NDT chit showing what step was being signed off when Sue Ann Neumeyer was ordered to use the chit to sign off the missing hold point on the traveler.

   b. The note "first fit-up and cleanliness" is in the handwriting of two people, it was not put on the chit by the inspector or the person who filled out the other information on the chit. The note was added to the chit when it was discovered that step 1 lacked QC verification and may not have been performed.

2. Although the travelers reference the WMR numbers on these chits as being for the fit-up and cleanliness it doesn't mean they were intended for that purpose. Travelers 398 thru 543 have steps signed off by the QC inspector but the information side of the traveler is blank. This is sufficient to show the WMR No., Welder Symbol, Weld Procedure, and Hold Points are not always filled in when the inspector signs the traveler, and may not have been filled in until the chits were added to it.

Step 1: Fit-up and Cleanliness of Channel Side (Concrete Side) Welds

The following welds lack QC verification of the fit-up and Cleanliness of backside (concrete side) welds. The Stainless Steel Liner has been installed. The welds cannot be re-inspected or tested to determine if they are acceptable. The condition of these welds are indeterminate.

1. Welds that have the same date and QC signature for step 3 and/or 2 that is shown on the NDT chit that was produced to show QC verification of step 1. It is evident the chits were not intended to verify step 1, but was intended to verify Step 3 and/or 2 only.

weld

4	9	12	14	16	17	21	23	24	28	29	32	33	36	38
39	40	41	42	43	44	45	46	47	49	51	53	54	56	57
59	60	63	65	66	67	68	69	70	72	73	74	75	77	78
82	84	85	87	89	91	92	93	95	96	99	100	107	108	109
111	112	113	114	124	125	127	129	130	131	132	134	135	136	138
140	141	143	153	162	170	175	180	185	187	188	191	192	194	196
197	198	199	200	202	203	208	212	213	218	222	225	230	232	236
237	250	252	266	267	268	269	271	280	284	291	293	294	295	296
297	298	301	302	307	313	318	319	323	324	330	331	340	341	349
351	661	662	663	664	686	689	696	697	709	720				

total 147

2. The following welds also lack QC verification for step 1:

weld

1A	3	6	10	11	13	15	19	20	22	25	26	27	30	31
34	35	37	48	61	62	71	80	86	88	101	102	103	104	105
110	115	116	117	118	119	120	121	122	126	142	144	146	147	150
151	152	154	156	158	160	163	164	165	167	168	169	171	172	173
174	176	177	178	179	181	182	183	184	186	190	193	195	201	206
210	211	214	215	216	217	219	220	223	224	227	228	229	229	231
234	240	242	244	246	248	251	253	256	257	259	261	263	264	265
270	273	275	276	278	279	281	282	285	286	287	288	289	290	292
300	303	305	306	308	309	310	312	314	315	316	317	320	321	322
325	326	328	329	333	334	335	336	337	338	339	342	352	660	687
688	691	694	695	698	699	700	701	702	710	711	729	842	851	852
854	855	856	857	858										

total 170

QC verification of fit-up/cleanliness for channel side (concrete side) welds was not performed on the following welds prior to welding, which makes the condition of the welds indeterminate. This was a violation of procedure and 10CFR50 Appendix B Criteria V.

Weld

26 Step 2: V.T. of backing strip tack/fillet welds
Signed off by S.M. McCoy on 9/8/78

Step 3: Cleanliness of channel, liner, and backing strip
Signed off by S. M. McCoy on 9/8/78

Step 1: Fit-up and Cleanliness of plate to plate
NDT Chit produced to show QC verification of this step was signed off by S.M. McCoy on 10/13/78 after Steps 2 and 3 were completed.

88 Step 2: V.T. of backing strip tack/fillet welds
Signed off by S.M. McCoy on 8/30/78

Step 1: Fit-up and Cleanliness of plate to plate
NDT Chit produced to show QC verification of this step was signed off by S.M. McCoy on 9/5/78 after Step 2 had been completed.

146 Step 2: V.T. of backing strip tack/fillet welds
Signed off by Larry Wilkerson on 8/11/78

Step 3: Cleanliness of channel, liner, and backing strip
Signed off by Larry Wilkerson on 8/11/78

Step 1: Fit-up and Cleanliness of plate to plate
NDT Chit produced to show QC verification of this step was signed off by Larry Wilkerson on 8/14/78 after Step 2 and 3 were completed.

195 Step 2: V.T. of backing strip tack/fillet welds
Signed off by S.M. McCoy on 9/27/78

Step 1: Fit-up and Cleanliness of Embed to Plate
NDT Chit produced to show QC verification of this step was signed off by S.M. McCoy on 9/28/78 after step 2 had been completed.

196 Step 2: V.T. of backing strip tack/fillet welds
Signed of by Larry Wilkerson on 9/27/78

Step 1: Fit-up and Cleanliness of Embed to Plate
NDT Chit produced to show QC verification of this step was signed off by Larry Wilkerson on 9/28/78 after step 2 had been completed

NDT chits produced for Step one reference wrong procedure for Embed to Plate

Fit-up and Cleanliness for Embed to Plate:

The correct welding procedure used for Embed to Plate is 88025. The following welds were done using the wrong welding procedure, or the NDT Chits used to verify Step 1 (Fit-up/Cleanliness) of Embed to plate are not the Chits signed off for that step of the welding operation.

Welds:

20	100	216	291	699	740	755	786
24	120	217	295	700	741	756	800
32	124	218	298	706	742	757	822
33	125	219	314	710	743	759	884
51	127	220	317	711	744	761	885
53	129	251	319	722	746	762	880
59	131	266	321	723	747	765	886
66	132	275	328	724	748	773	888
67	196	276	330	725	749	775	889
68	200	277	333	735	750	776	890
69	206	278	337	736	751	780	891
72	209	279	342	737	752	783	892
73	210	283	352	738	753	784	897
74	211	287	698	739	754	785	

The above welds were done using welding procedure 88023.

MISSING HOLD POINTS: Continued

Step 5: Fit-up and Cleanliness of inside (waterside) welds

Inspection travelers for the following welds lacked QC verification for Step 5, fit-up and cleanliness of inside (waterside) welds. Welds have been performed; leaving the acceptability of the welds indeterminate.

welds

6	10	11	12	13	14	17	19	20	21	22	23	24	26	27
28	30	31	32	36	37	38	40	41	42	43	44	46	47	48
49	51	53	54	56	57	59	60	63	65	66	67	68	69	70
71	72	73	74	75	78	81	82	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100	101	103	104	105	107
108	109	111	112	113	114	115	116	117	119	122	124	125	127	130
136	138	140	143	147	152	158	165	167	168	169	170	171	172	174
175	180	183	185	189	198	199	146	153	178	179	176	181	182	195
188	196	202	203	208	212	213	225	228	230	232	237	242	243	256
259	264	267	268	269	273	286	287	290	292	294	295	298	301	293
302	303	306	307	308	313	315	316	320	322	325	314	323	332	339
340	342	709	705	896	901	907	908	909	910	912	682	713	714	851
864	865	867	875	197	318	687	688	779	783	784	785	799	797	798

Inspection travelers for the following welds lacked QC verification for Step 5, fit-up and cleanliness of inside (waterside) welds. NCR's have been written for these welds making their acceptability contingent on the results of vacuum and hydrostatic tests.

welds

192	200	209	210	235	236	246	248	250	251	252	257	261	263	271
274	277	278	280	281	282	285	288	291	299	330	331	333	334	335
336	337	338	341	344	345	346	347	348	349	351	353	695	699	700
709	729	1145												

PART III:

MISSING HOLD POINT 7: Final V.T. Of Inside Weld

Welding has been done but lacks QC verification for welds completed

Weld	Date		Welder Symbol	WFML Number	Rods Burned
544	5/14/81	FF	AEO	A-007	1
	5/18/81		AEO	A-012	4
	5/18/81		AYZ	A-013	4
	5/19/81		AEO	A-019	4
	5/19/81		BEN	A-020	6
	5/21/81		AEO	A-032	5
	5/26/81		AEO	A-036	6
	5/26/81		BEN	A-037	8
	Total Rods Burned				38
545	5/14/81	FF	AEO	A-007	2
	5/19/81		BYZ	A-013	4
	5/19/81		BEN	A-020	6
	Total Rods Burned				12
546	5/14/81	FF	AEO	A-007	2
	5/18/81		BYZ	A-013	4
	5/19/81		BEN	A-020	6
	5/20/81		AEO	A-023	5
	5/21/81		AEO	A-032	5
	Total Rods Burned				22
547	5/14/81	FF	AEO	A-007	1
	5/18/81		AEO	A-012	4
	5/19/81		AEO	A-019	4
	5/19/81		BEN	A-020	6
	5/21/81		AEO	A-032	5
	Total Rods Burned				20
551	5/14/81	FF	AEO	A-007	1
	5/18/81		AEO	A-012	4
	5/19/81		AEO	A-019	4
	Total Rods Burned				9
552	5/14/81	FF	AEO	A-007	1
	5/19/81		AEO	A-019	4
	Total Rods Burned				5
553	5/14/81	FF	AEO	A-007	1
	5/18/81		AEO	A-012	4
	5/19/81		AEO	A-019	4
	Total Rods Burned				9
554				A-007	
				A-012	
				A-036	

Weld	Date		Welder Symbol	WFML Number	Rods Burned
554	5/14/81	FF	AEO	A-007	1
	5/18/81		AEO	A-012	4
	5/26/81		AEO	A-036	6
	5/26/81		BEN	A-037	8
	Total Rods Burned				19
555	5/14/81	FF	AEO	A-007	1
	5/18/81		AEO	A-012	4
	5/19/81		AEO	A-019	4
	Total Rods Burned				9
556	5/14/81	FF	AEO	A-007	1
	5/18/81		AEO	A-012	4
	5/19/81		AEO	A-019	4
	Total Rods Burned				9
557	5/14/81	FF	AEO	A-007	1
	5/18/81		AEO	A-012	4
	5/19/81		AEO	A-019	4
	Total Rods Burned				9
558	5/14/81	FF	AEO	A-007	1
	5/18/81		BYZ	A-013	4
	5/19/81		AEO	A-019	2
	5/19/81		BEN	A-020	6
	5/20/81		AEO	A-023	5
	Total Rods Burned				18
559	5/14/81	FF	AEO	A-007	1
	5/18/81		BYZ	A-013	4
	5/19/81		AEO	A-019	3
	5/19/81		BEN	A-020	6
	Total Rods Burned				14
560	5/14/81	FF	AEO	A-007	1
	5/18/81		BYZ	A-013	4
	5/19/81		AEO	A-019	2
	5/19/81		BEN	A-020	5
	5/20/81		AEO	A-023	5
	Total Rods Burned				17

PART III:

MISSING HOLD POINT 7: Final V.T. Of Inside Weld lacks QC Verification

Weld	Date	Welder Symbol	WFML Number	Rods Burned
561	5/18/81	BYZ	A-13	4
	5/19/81	BEN	A-20	6
	Total Rods Burned			10
562	5/18/81	BYZ	A-13	4
	5/19/81	AEO	A-19	3
	5/19/81	BEN	A-20	5
	Total Rods Burned			12
563	5/18/81	BYZ	A-13	4
	5/19/81	BEN	A-20	5
	Total Rods Burned			9
564	5/18/81	BYZ	A-13	4
	5/19/81	BEN	A-20	5
	Total Rods Burned			9
851	9/28/81	BKU	A-553	4
	10/1/81	ABF	A-582	15
	10/5/81	ABF	A-588	3
			B-253	
	9/24/81	AUB	A-535	7
	Total Rods Burned			29+
852	9/24/81	AUB	A-535	8
	9/24/81	BKU	A-553	4
	10/1/81	ABF	A-582	6
			B-253	
			B-260	
	Total Rods Burned			18+
855	9/10/81	AUB	A-425	15
		CFO	B-192	
		CFO	B-202	
	Total Rods Burned			15+
856	9/10/81	AUB	A-425	10
		AUB	B-192	
		CFO	B-202	
	Total Rods Burned			10+

Weld	Date	Welder Symbol	WFML Number	Rods Burned
857	9/09/81	AUB	A-417	6
		CFO	B-192	
	Total Rods Burned			6+
858	6/10/81	AUB	A-425	15
	9/09/81	AUB	A-417	7
	Total Rods Burned			22
853	9/24/81	AUB	A-535	8
854	9/21/81	AUB	A-535	8
1160	5/27/81	ABF	A-45	4
	5/21/81	ABF	A-48	125
	5/29/81	ABF	A-54	100
	6/01/81	ABF	A-61	74
	9/08/81	ABF	A-412	134
	9/09/81	ABF	A-414	31
	Total Rods Burned			468

Welds That Do Not Have WFML's In Package

Weld	Welder Symbol	WFML Number	Weld	Welder Symbol	WFML Number
565	BMD	D-5732	566	BMD	D-5732
570	CFO	B-214	573	BMD	D-5739
574	BEN	D-5763	579	BMD	D-5757
580	BEN	D-5763		BEN	D-5763
588	BYZ	D-5740	585	BYZ	D-5761
600	AEO	D-5762			
	BEN	D-5767			

870	921	918	916	914
898	899	897	890	1134
925	924			

PART IV:

NO QC VERIFICATION:

WFML's referenced on travelers indicate that new welding was done, but there is no supporting documentation in the package to show there was any QC verification or involvement when the welding was done.

Weld	WFML Number	Step
6	D-4117	5
10	*D-2073	5
	B-332	5
11	B-317	5
12	D-1502	1,5
	D-1549	1,5
13	D-1477	1
	D-1502	5
14	D-1566	1
	D-1586	5
16	D-0725	1
	D-5730	?
17	D-1284	1
	D-1502	1,5
20	*D-4135	5
21	D-4020	1
	D-4046	5
	D-4188	5
22	D-4188	5
23	*D-4136	5
	*D-4188	5
	D-2033	1
24	B-314A	1
	B-332	1
26	D-1477	1,5
	B-314A	1,5
27	D-1549	5
28	D-1818	5
36	B-195	5
	D-4187	5
37	D-4021	5
	D-4007	4
	D-4044	5
	*A-425	5
38	D-4063	5
	D-4073	5
39	B-241	1
40	A-425	1,5
41	D-3024	5
	A-425	5
42	D-2098	5
43	D-1507	1
	D-1531	1
	D-1547	1
	D-1566	1
	D-1582	1
	D-1670	1
	*A-425	5
	*A-438	5
44	D-1317	1
46	D-1355	1
	D-1353	1
	D-1373	1
	D-1488	5
	D-1837	5
47	D-1317	?
48	D-4912	1
	D-4925	5
	D-4936	5
	B-262	5
49	A-433	1
	B-173	5
51	B-173	1
56	D-4007	1,4
	D-4021	1,4
	D-4063	1,4
	D-4044	1,4
57	D-3028	1
	D-3027	1
	D-3035	1
	D-3046	1
	D-3047	5
	D-3075	5
	D-3088	5
	B-339	5
58	B-180	1,5
	B-193	5
60	D-1547	1
	D-1531	1
	D-1586	1
	D-1602	5
	D-1561	5
	B-339	5
63	B-1033A	1
	B-1038A	1
	B-1090A	1
	B-1577	5
65	A-440	4
66	A-440	4
	A-452	?
71	D-4903	1
	D-4912	1
	D-4925	1
	D-4936	1

PART IV:

NO QC VERIFICATION: For Rewelding

WFML's referenced on travelers that do not show QC verification.

Weld	WFML Number	Step
74	D-4936	1
	D-4945	5
75	D-4936	1
	D-4945	1
77	B-329A	1
80	D-021	1
	D-035	1
	D-043	1
	D-046	1
	D-065	1
	D-4298	7
	D-4302	7
	B-590	7
	B-599	7
81	D-4283	1,5
	B-590	1,5
82	D-4992	1
	D-4107	1,5
	B-532	5
	B-549	5
	B-568	5
84	D-1204	1
	D-4063	1,5
	D-4090	5
	D-4123	5
	D-4125	5
85	D-4009	1
	D-4022	5
	D-4090	5
	D-4123	5
86	D-1178	1
	D-1187	1
	D-3046	1
	D-3075	5
	D-3076	5
	D-3088	5
	D-3096	5
	D-580	5
87	D-4022	1
	D-4090	5
	D-4092	5
	D-4107	5
88	D-4009	5
	D-4022	5
	B-502	1
89	D-1178	1
	D-1582	5
	D-1586	5
	D-1945	5
	B-580	5
90	D-4022	1
91	D-1391	1,5
92	D-4945	1
93	D-1733	1
	D-1840	1
	D-1862	1
	D-1837	1
94	D-1945	1
	D-1994	1
	B-460	1
96	D-1818	1
97	D-1840	1
	D-1821	1
98	D-1493	1
	D-1493	1
	D-1710	5
	D-1733	5
	D-1752	5
99	D-1862	1
	B-460	5
101	D-1413	1
	D-1444	1
103	D-1391	1
	D-1413	1
104	D-1444	1
	D-1461	1
105	B-502	1
107	*B-463	1
	B-477	1
108	D-1264	1
	D-1488	1
	D-1472	5
109	D-1284	1
	D-5730	1
111	D-5715	1
	D-5724	1
	D-5730	1
112	D-1301	1
	D-5730	?
113	D-1264	1
	D-1488	5
	D-1472	5
114	D-1731	1
	D-1767	1
115	D-1477	1
	D-1633	5
116	D-1731	1
	D-1754	5
117	D-1413	1
	B-447	1
119	D-1731	1,5
	D-1754	5
	D-1767	5
	D-1801	5
	D-1818	5
	D-1821	5

PART IV:

NO QC VERIFICATION: For Rewelding

WFML's referenced on travelers that do not show QC verification.

Weld	WFML Number	Step
120	B-447	1
121	D-1508	5
	D-1633	5
	D-1653	5
122	B-392A	1
	B-394	1
124	D-4254	1,5
125	D-4254	1,5
126	D-035	1
	D-018	1
	D-043	7
	D-046	7
	D-065	7
	B-568	7
	B-580	7
127	D-4275	5
	D-4283	5
128	D-4107	5
	D-4125	5
	D-4211	5
129	B-532	5
130	D-4092	1
132	B-493	1
	B-502	1
133	D-4107	5
	D-4125	5
134	D-3076	1
	D-3087	5
138	D-1933	1
140	B-477	1
142	D-1733	5
	D-1752	5
	B-407	5
	B-405A	5
143	B-405A	1
144	D-1461	1
	D-1733	5
	D-1752	5
145	B-437	1
146	D-1444	1
	D-1461	1
147	B-629	1
	B-644	1
150	D-021	1
	D-032	1
	D-018	1
	D-043	7
	D-046	7
	D-065	7
151	D-4133	5
	D-4124	7
	D-4212	7
152	D-3059	1
	D-3076	1
	D-4267	5
	D-4275	5
153	D-4267	5
155	D-3095	5
	D-4133	7
	D-4124	7
156	A161476	5
	A161732	5
	A161763	5
	A161784	5
	A161809	5
	A161844	5
157	D-3095	1
158	D-1963	1
	D-1983	1
	A161476	1
	A161732	1
	A161764	1
	A161784	1
	A161810	1
159	D-1963	5
	D-1983	5
160	D-1532	1
	D-1908	1
	A161475	1
	A161733	1
	A161764	1
	A161810	1
	A161843	1
	B-450	5
163	D-021	1
	D-032	1
	D-043	1
	D-065	7
	D-4404	7
	D-4406	7
165	D-1263	1
	D-1268	1
	D-1269	5
	D-1282	5
	D-4077	5
	D-4091	5
	D-4124	5
	D-4111	5
167	D-4111	1
	D-4124	1
	D-4353	5
	D-4360	5
169	B-658	1

PART IV:

NO QC VERIFICATION: for rewelding

WFML's referenced on travelers that do not show QC verification

Weld	WFML Number	Step		Weld	WFML Number	Step		Weld	WFML Number	Step
170	D-3059	1,5		182	D-1710	1		194	A-553	7
					D-1892	1,5			B-339	7
171	D-1241	1								
	D-1249	1		183	D-1427	1		195	B-206	1,5
	D-1263	1			D-1427	1				
	D-1268	1			D-1553	5		196	B-219	5
	D-1269	5			D-1945	5				
	D-1282	5						197	D-1548	1
	D-1548	5		184	B-380	1			D-1565	1,5
	B-649	1							D-1582	1,5
	B-658	1		185	D-4298	1			D-1585	1,5
					D-4302	5			B-339	1,5
172	D-1983	1								
	D-194	1,5		186	D-021	1		198	D-3034	1
					D-032	1			D-3034	1,5
173	D-1878	1			D-043	1				
	D-1908	1,5			D-065	1		199	D-1390	1
	B-366	1,5			D-4418	7			D-1427	1
	B-450	1,5			D-4418	7			D-1427	1
					D-4419	7			D-1427	1
174	B-366	1								
	B-379	1		187	D-433	1		202	B-379	1
	B-437	1			D-4353	5				
					D-4360	5		206	D-4393	1
175	B-407	1	38		D-4393	5				
	B-405A	1						207	D-4411	7
	B-420	1	32	188	D-008	5				
					D-4212	5		208	D-4038	1
176	D-1862	1			B-599	1			D-4049	1
	D-1878	1,5							D-4076	1
	D-1908	5		189	D-4203	1			D-4117	5
177	D-1710	1,5		190	D-4038	1		211	B-72A	1,5
	D-1752	1,5			D-4022	1				
	D-1692	1			D-4049	5		210	B-169	1,5
					D-4062	5			B-180	1,5
178	D-1427	1,5			D-4117	5				
					D-4077	5		212	D-2045	1
179	D-144	1			B-339	5			D-2033	1
	D-144	1							D-2057	1
	D-144	1		191	D-3034	1			D-2072	1
					D-3034	1,5			D-2087	1
180	B-380	1			B-599	1			D-2099	1
	B-371A	1							D-3001	1
	B-382A	1		193	A-535	1	5*		B-72A	5
					A-535	1,5	7*		B-72A	1
181	D-1892	1			B-339	1,5				
	D-1908	1,5								

PART IV:

NO QC VERIFICATION: For re-welding

WFML's referenced on travelers that do not show QC verification

Weld	WFML Number	Step		Weld	WFML Number	Step		Weld	WFML Number	Step	
213	D-1477	1		229	D-4020	1		246	B-248	1	
	D-1477	1			D-4046	5					
	D-1477	1			D-4061	5		247	B-112	1.7	
	D-1477	1			D-4188	5			B-900A	1,7	
	D-4062	5							B-905A	1,7	
				230	D-3023	5					
214	D-2057	1						248	B-237	1	
	D-2072	5		231	D-2033	1			B-225	1	
					D-2046	1			B-237	1	
215	D-1585	1			D-2058	1					
	D-1837	1,5			D-2058	1		249	B-112	1,7	
	B-285	1,5			D-2099	1			B-900A	1,7	
	B-295A	1,5			D-3001	5			RBL-249	7	
					D-3011	5					
216	B-71A	1,5			D-4201	5		250	A-727	4	30*
	B-92A	1,5	20*						A-735	4	35*
	B-71A	1,5		232	D-2046	1			A-750	4	20*
					D-2058	1			A-777	4	20*
219	B-260	1			D-2058	1			A-801	4	25*
	B-285	1			D-3011	1					
	B-295A	1			D-3023	1		252	D-4155	1	4r*
					D-4201	1			D-4169	1	
220	B-71A	1,5							D-4179	1	
				234	D-3023	4,1			A-750	5	10*
222	B-1038A	1							A-801	5	1*
	B-1062A	1		237	D-1301	1			A-819	5	5*
	B-1090A	1			D-1317	1					
	B-1577	5						253	D-5775	5	
				241	B-35	7			D-5788	5	
225	D-1317	1			B-39	7			D-5784	5	
					B-581	7			D-5788	5	
227	D-008	5			B-591	7			D-5788	5	23*
	D-021	5			RBL-241	7					
	N-010	5						254	B-581	7	
	D-032	5		242	A-883	1	15*				
	N-020	5			A-891	1	13*	256	N-003	1	
	D-043	5			A-901	1			D-043	1	
	D-065	5			A-914	1,5			A-655	1	
	D-4148	7							A-667	1	
	D-4165	7		244	A-914	1	30*				
	D-4175	7			A-922	1	20*	257	A-674	1	20*
	D-4187	7			B-214	5			A-675	1	20*
	D-4136	7			B-248	5			A-683	1	20*
									A-695	1	12*
228	D-022	5		245	B-905A	1,7					
	D-0476	5			RBL-245	7		258	B-955A	1,7	51*
	D-4152	5			RBL-245	7					

PART IV:

NO QC VERIFICATION: For Re-welding

WFML's reference on travelers that do not show QC verification

Weld	WFML Number	Step	
259	A-675	5	17*
	A-683	5	30*
	A-695	5	11*
	A-731	5	7*
	RBL-259	5	
260	B-939A	1,7	60*
261	A-702	1	40*
	A-738	1	
	A-705	1	11*
	A-752	1	14*
262	B-112	7	
	B-914A	7	
	B-921A	7	30*
	B-921A	7	1*
263	A-717	1	20*
	A-748	1	15*
	A-754	1	5*
	A-758	1	6*
265	A-791	5	10*
266	A-791	5	10*
267	A-735	4,1	18*
	A-786	4,1	2*
268	A-786	1,5	3*
	D-4169	4	
	A-750	1,5	10*
	A-801	1,5	2*
270	D-4156	1	
	D-4167	1	
	D-4179	1	
273	N-003	1	
	D-043	2	
	N-024	1	
	D-056	1	
	A-667	7	40*
	A-679	7	90*
279	B-1034A	1	
	B-1038A	1	
280	D-008	4	
	A-692	1	20*
	A-683	1	20*
	A-705	1	
	A-724	1	6*
	B-518	1	24*
	B-521	1	
	B-518	5	10*
281	A-687	5	1*
	A-675	5	16*
282	B-569	5	
	B-617A	5	
	B-569	5	
284	A-692	4	50*
	A-724	4	6*
	A-731	1	25*
	A-732	1	16*
285	A-692	4	
286	A-692	1	20*
	A-702	1	40*
	A-705	1	11*
	A-731	1	
287	B-972A	1	
288	B-617A	5	
	B-613A	5	
	RBL-288	5	
290	A-717	1	40*
	A-727	1	30*
	A-741	1	18*
	A-748	1	15*
	B-619A	5	
291	A-735	4	18*
	A-777	4	20*
	B-967A	1	
	RBL-291	5	1*
292	B-619A	5	
293	RBL-293	5	1*
294	A-727	1	
	A-758	1	
	A-768	1	
	B-972A	1	
295	B-967A	1	
296	B-860A	1	
297	D-4169	4,1	
300	D-4179	1	
	A-348	1	
	A-350	1,5	
301	D-4194	1,5	
302	D-4194	1	
	A-325	1	3*
	RBL-302	5	1*
303	D-5774	5	
	D-5575	5	
	D-5783	5	
	B-1062A	1	1*
	B-1097A	1	34*
	B-1099A	1	9*
	B-1106A	1	
305	D-043	1	
	D-053	1,7	48*
	D-056		
306	B-530	1	
308	B-558A	1	37*
	B-569A	1	

PART IV:

NO QC VERIFICATION: For re-welding

WFML's referenced on travelers that dosen't show QC verification

Weld	WFML Number	Step	
309	B-569A	1	
	B-580A	1	66*
310	B-868A	1	32*
312	D-003		
	D-043		
	N-024		
	D-056		
313	B-530	1	
	B-559	1	
314	RBL-314	1	10*
315	B-537A	1	
	B-546A	1	
316	B-537A	1	
	B-546A	1	
318	B-510A	1	
	B-520A	1	
319	B-816A	5	5*
	B-821A	5	
320	B-842A	1	
	B-860A	1	
322	D-4193	1	
	A-330	1	33*
323	D-4193	1	
	B-842A	5	
	B-846A	5	
325	D-4193	5	
	RBL-325	5	30*
330	A-866	1	55*
331	D-008	1	
	A-883	1	
	A-891	1	39*

Weld	WFML Number	Step	
332	A-901	1	26*
	B-418A	1	
	B-431A	1	
	B-472A	1	39*
	B-484A	1	
	B-472A	5	
333	A-854	1	10*
335	A-839	1	70*
	A-854	1	9*
	B-961A	1	33*
334	A-922	4	20*
	B-94	4	26*
	B-214	1	
337	D-578	4	
	B-821A	1	
	B-831A	1	
	RBL-337	5	1*
339	B-3	4	20*
	B-63	4	
	B-76	4	
	B-225	1	
	B-431A	1	
	B-499A	1	
	B-510A	1	
	RBL-339	5	
340	B-053	1,4	29*
	B-063		
	B-842A		
	B-A46A		
341	B-016	1	
	B-069	1	
	B-076	1	
	B-225	1	
342	B-831A	1	
	B-835A	1	
351	RBL-351	4	5*

Weld	WFML Number	Step	
352	A-750	1	20*
	A-791	1	11*
	RBL-352	5	1*
696	D-1361	1	
	D-1386	1	
	D-1402	1	
	D-1422	1	
	D-1437	1	
	D-1456	1	
	D-1462	1	
	D-1472	1	
	D-5619	1	
697	D-1361	1	
	D-1386	1	
	D-1402	1	
	D-5619	1	
703	A-321	1	11*
	A-325	1,5	28*
709	B-137		39*
721	D-5625	1,2,3	
	D-5653	1,2,3	
	D-5653	5	
725	D-5625	1,2,4	
	D-5653	1,2,4	
	D-5653	5	
727	D-5626	1,2,4	
	D-5653	1,2,4	
	D-5653	5	
728	D-5625	1,2,4	
	D-5653	1,2,4	
	D-5653	5	

PART IV:

NO QC VERIFICATION:

WFML's attached to travelers indicate welding was done on the following welds but no QC verification or involvement is shown. WFML's attached to but not referenced on the travelers:

Weld	Date	WFML Number	Welder Symbol	Welding Procedure	Heat Number	Rods/Spools Iss.	Rods/Spools Rt'd
1A	5/3/83	B-2426	ABF	88025	463516	8	0
14	3/23/83	B-2427	ABF	88025	463516	2	0
16	3/22/83	D-5711	ABF	88025	463516	10	0
26	6/7/83	B-2428	BZG	88025	463516	5	2
28	3/17/83	B-2429	ABF	88025	463516	10	0
	3/23/83	"	ABC	"	"	4	0
	4/6/83	"	CFA	"	"	4	0
37	7/10/81	A-425	AUB	88025	463638	2	0
43	3/28/83	B-1869	CFA	88025	463516	6	0
44	8/6/84	B-2551	CDP	88025	463516	2	0
	8/7/84	"	CDP	"	"	2	1
45	3/1/83	B-1768	ABF	88025	463516	5	3
46	8/6/84	B-1752	CDP	88025	463516	2	0
47	3/14/83	B-1834	ABF	88025	463516	10	5
48	3/1/83	B-275	ABF	88025	463516	5	3
54	3/23/83	B-2450	CDP	88025	463516	3	2
56	3/11/80	D-3061	BEY	99020	434788	2	1
65	9/12/81	*A-440	ACH	88025	463638	20	3
	9/14/81	A-452	ACH	88025	463638	20	3
66	9/14/81	A-452	ACH	88025	463638	20	3
67	3/29/83	B-1873	CFA	88025	463516	1	0
68	3/29/83	B-1874	CFA	88025	463516	1	0
69	2/24/83	B-1756	ABF	88025	463516	2	0

*Referenced on traveler

PART IV:

NO QC VERIFICATION:

Weld	Date	WFML Number	Welder Symbol	Welding Procedure	Heat Number	Rods / Rolls Iss.	Rt'd
71	2/28/83	B-1753	ABF	88025	463516	15	5
73	7/16/84	B-2547	BZG	88025	463516	20	10
	7/17/84	"	BZG	88025	463516	20	9
74	2/24/83	B-1755	ABF	88025	463516	1	0
80	5/1/80	D-4290	AUB	88023	463638	40	10
	"	D-4293	AEO	88023	"	40	10
	5/16/80	D-4303	AUB	88023	"	40	27
	2/23/82	B-608	CFA	88025	463516	40	5
86	12/3/79	D-1187	BBI	99020	434788	2 rl	1 rl
	3/17/80	D-3096	BEY	88023	"	1 rl	0 rl
89	2/14/80	D-1954	AWK	99020	434788	1 rl	1/2rl
90	2/10/82	B-511	CFA	88025	463516	40	34
	2/11/82	B-522	CFA	88025	463516	40	36
91	4/20/83	B-1920	AIM	88025	463516	10	7
92	5/2/83	A-79	BEN	88025	463638	20	4
	5/2/83	A-79	BFF	88025	463516	10	9
94	4/22/80	D-2003	AWK	99020	434788	1 rl	0 rl
95	2/11/82	B-524	CCG	88025	463516	40	0
	"	"	"	"	"	10	8
98	3/24/83	B-1862	ABF	88025	463516	15	1
100	1/21/82	B-368	CCG	88025	463516	40	19
101	3/29/83	B-1867	ABF	88025	463516	15	0
	3/28/83	"	ABF	"	"	10	2
	3/29/83	"	AGF	"	"	10	0
104	3/29/83	B-1877	ABF	88025	463516	8	3
107	2/3/82	B-463	CCG	88025	463516	40	0
108	3/14/83	B-1835	ABF	88025	463516	8	0
	3/15/83	"	"	"	"	10	5
	3/28/83	"	CFA	"	"	1	0
	3/14/83	"	ABF	"	"	8	0
	3/15/83	"	"	"	"	10	5

PART IV:

NO QC VERIFICATION:

Weld	Date	WFML Number	Welder Symbol	Welding Procedure	Heat Number	Rods / Rolls Iss.	Rt'd
109	3/16/83	B-1844	ABF	88025	463516	4	0
	3/17/83	"	"	"	"	10	0
111	2/19/81	*D-5724	BYZ	88025	463638	40	0
	2/19/81	"	"	"	"	40	0
	3/22/83	"	ABF	"	463516	10	5
113	3/9/83	B-1816	CFA	88025	463516	10	6
115	3/31/83	B-1881	ABF	88025	463516	15	3
	4/7/83	"	CFA	"	"	20	12
	4/7/83	"	BBU	"	"	10	3
	4/8/83	"	CFA	"	"	10	0
	4/19/83	"	CFA	"	"	4	0
116	4/18/83	B-1916	CFA	88025	463516	9	0
117	4/18/83	B-1917	CFA	88025	463516	9	0
122	3/30/83	*B-394	ABF	88025	463516	5	0
143	1/27/82	*B-411	CCG	88025	463516	40	14
	1/28/82	*B-424	CCG	"	"	40	20
147	2/26/82	*B-644	CFA	88025	463516	40	9
	2/25/82	*B-629	"	"	"	40	7
163	5/30/80	D-4404	AUB	88023	463638	40	0
	6/2/80	D-4406	AUB	"	"	40	11
168	6/27/83	B-2161	BZO	88025	463516	20	3
169	6/7/83	B-2117	BZO	88025	463516	30	5
	6/8/83	"	ABF	"	"	10	4
	6/8/83	"	BFF	"	"	25	10
173	5/3/83	B-355	ABF	88025	463516	40	11
175	1/27/82	B-407	CFO	88025	463516	40	2
	1/28/82	B-420	CFO	"	"	40	7
177	4/19/83	*D-1692	CFA	88025	463516	4	0
179	6/28/83	B-2144	BZG	88025	463516	20	2
183	4/19/83	B-1918	CFA	88025	463516	10	0

*Referenced on traveler

PART IV:

NO QC VERIFICATION: WFML's Attached To But Not Referenced On Traveler. Welding was done with no QC inspections.

Weld	Date	WFML Number	Welder Symbol	Welding Procedure	Heat Number	Rods/Rolls Iss.	Rods/Rolls Rt'd
199	4/20/83	B-2433	AIM	88025	463516	15	7
200	3/2/83	B-1773	ABF	88025	463516	5	0
201	3/07/83	B-1772	ABF	88025	463516	5	2
202	4/13/83	B-1908	CFA	88025	463516	3	0
216	3/28/83	B-092A	CFA	88025	463516	2	0
217	3/29/83	B-0307	CFA	88025	463516	1	0
218	3/09/83	B-1814	ABF	88025	463516	2	0
	3/17/83	"	CFA	"	"	3	0
	3/28/83	"	CFA	"	"	1	0
219	3/15/83	B-1838	CFA	88025	463516	2	0
220	3/15/83	B-1839	CFA	88025	463516	2	1
222	3/09/83	B-1815	ABF	88025	463516	2	0
223	3/02/83	D-1355	ABF	88025	463516	10	4
253	3/09/83	D-5788	CFL	88025	463516	2	0
257	4/21/83	B-RBL-257	ABF	88025	463516	15	0
237	3/02/83	B-1774	ABF	88025	463516	10	5
	3/09/83	"	CFA	"	"	2	1
200	3/02/83	B-1773	ABF	88025	463516	5	0
697	3/15/83	B-1831	CFA	88025	463516	5	0
	3/31/83	"	CFA	"	"	2	0
	4/04/83	"	CFA	"	"	8	0
	4/04/83	"	CFA	"	"	10	0
				Total Rods Burned		25	
713	7/12/84	B-2545	BZO	88025	463516	5	3
714	7/12/84	B-2543	BZO	88025	463516	20	19

PART IV:

NO QC VERIFICATION: WFML's Attached To But Not Referenced On Traveler
Welding performed with no QC inspections.

Weld	Date	WFML Number	Welder Symbol	Welding Procudere	Heat Number	Rods/Rolls Iss.	Rt'd
852	3/29/83	B-1875	CFA	88025	463516	1	0
853	3/16/83	B-1842	CFA	88025	463516	6	1
854	3/16/83	B-1843	CFA	88025	463516	6	0
	3/17/83	"	CFA	"	"	2	0
	3/21/83	"	CFA	"	"	3	0
857	3/01/83	B-1770	ABF	88025	463516	5	1
	3/17/83	"	CFA	"	"	1	0
858	3/01/83	B-1771	ABF	88025	463516	5	0
	3/16/83	"	CFA	"	"	3	0
1217	5/20/82	B-1068A	AAR	18013	50067-1	25	13
	5/20/82	"	AAR	"	"	10	0

JAMES W. COLE

In 1981 James W. Cole signed off the following travelers as complete. Step 8 (Completion of Weld Inspection) was signed off but the required vacuum box test were not done. The PT test had been performed but the vacuum box block was N.A'd.

Several NCR's were written against these welds because they are pressure boundry welds and require vacuum box testing. The NCR's referenced QI-QP 11.14-6, Para. 3.4.4. The disposition of the NCR's re-established the holdpoints and required that these welds be vacuum box tested. The NCR's and weld numbers are as follows:

NCR M-84-00647 dated: 2/24/84
Weld: 1098, 1099, 1100, 1101, 1102, 1103, 1104, and 1105

NCR M-84-00669 dated: 2/27/84
Welds: 1087, 1088, 1089, 1090, 1091, 1092, 1144, 1145

NCR M-84-00670 dated: 2/27/84
Weld: 1111, 1112, 1117, 1118, 1121, 1122, 1123, 1129, 1127, 1130
1132, 1133, 1134 and 1128

NCR M-84-2-00038 dated: 7/30/84
Weld: 1082, 1083, 1084, 1096, 1097, 1106, 1107, 1108, and 1109

NCR M-84-2-00039 dated: 7/30/84
Weld: 1085, 1086, 1093, 1094, 1095, 1110, 1113, 1114, 1115, 1116
1119, 1120, 1124, 1125, 1126, and 1131

PART II: Failure to Perform and Document Inspections

VIOLATIONS OF: 10CFR50 Appendix B Criteria V
ANSI/ASME N45.2-1977 Section 2

Procedures: CP-QCI-2.11-1; QI-QAP-10.1-4; QI-QAP-11.1-4

Procedures require the QC inspector to inspect all interior surfaces of the Stainless Steel liner and document the results on the S/S Liner NDE Report.

NDE on Seam Welds:

Procedure requires a final visual examination of seam welds; a final liquid pentrant examination of seam welds; and final vacuum box test of seam welds.

Final V.T. of inside welds has been signed off on the following welds without the vacuum box and/or pentrant examination being performed as required by procedure.

No NDE Reports included in package: 655 713 714 719

NDE Report for V.T. only: 665 804 805 847 848 849 850

V.T. and P.T. examination performed: 690 888 887 989

The final V.T. of inside welds were signed off by James Cole for the following welds without the P.T. examination or vacuum box test being performed.

354 355 356 359 360 365 366 367 370 371 373 375
378 381 383 385 386 387 396 392 567 571 572 575
576 583 584 586 587 590 591 594 595 596 597 598
599 601 602 603 604 605

The final V.T. of inside welds were signed off on the following welds by other inspectors.

610 612 613 617 778 1229 1263 1264 1265 1266 1267

PART V: IMPROPER SIGN OFF OF INCOMPLETE WELDS, FAILURE TO COMPLY WITH MANDATORY HOLD POINTS, AND LACK OF NDE S/S LINER TEST REPORTS

VIOLATIONS OF: 10CFR50 Appendix B, Criteria II and V
ANSI/ASME N45.2-1977, Section 11 and 18
CPSES SITE PROCEDURES 1/9/78 - 3/26/82

The following welds have the completion of weld inspection block on Attachment 1 signed off as completed prior to the completion on welds prior to vacuum box testing and/or P.T. inspection being performed.

1. NDE report sheet was included in package for V.T., but P.T. test and vacuum box test was not performed.

678	679	680	681	682	683	684	685	712	718
933	937	938	1139	1140	1141	1142	1146	1147	1148
1149	1150	1151	1152	1159	1169	1170	1171	1172	1175
1176	1177	1178	1179	1181	1182	1183	1184	1185	1186
1187	1188	1189	1190	1191	1192	1193	1194	1195	1196
1197	1198	1199	1200	1201	1202	1203	1204	1205	1206
1209	1210								

2. No NDE report sheets, no P.T. examination, and no vacuum box test

5	7	8	715	716	889	890	891	892	896
900	934	936	939	940	941	942	943	953	953
954	955	956	957	958	959	960	961	962	963
964	966	967	968	969	970	991	992	993	994
995	1154	1155	1156	1157	1158	1218	1219	1220	1221
1222	1223	1224	1239	1240	1241	1242	1243	1245	1246
1247	1248	1249	1250	1251	1252	1260	1261	1262	

IMPROPER SIGN OFF OF INCOMPLETE WELDS:

3. Signed off as complete by James Cole with vacuum box test N/A'ed Many NCR's were written for welds that James Cole had N/A'ed the vacuum box test on. The vacuum box test has been re-established on all but the ones below.

722	723	724	725	726	730	731	732	733	734
735	736	737	738	739	740	741	742	751	752
753	754	759	760	761	762	765	766	770	773
774	775	776	779	780	781	782	783	784	785
786	787	800	807	820	821	822	823	824	825
826	827	828	829	830	831	832	833	877	878
879	880	881	882	883	884	886	913	915	932
996	997	998	999	1135	1137	1138	1161	1162	1163
1165	1166	1167	1168	1211	1212	1213	1215		

4. P.T. test has been performed on these welds but vacuum box has not

901	902	903	904	905	906	907	908	909	910
929	930	944	945	946	947	948	950	961	952
971	972	973	974	975	976	977	978	979	980
981	982	983	984	985	986	987	988	990	1230
1231	1232	1233	1234	1235	1236	1237	1238		

PART VI: NON CONFORMING CONDITIONS DISPOSITIONED BY NCR's

NCR M-83-01188 WELDS SIGNED OFF BY JIM COLE THAT HAD MAJOR DEFECTS:

2 Welds involved 324 and 694

PROBLEM: Documentation in the vault indicates weld 324 (plate D-32 to angle C-6) is complete. Contrary to the above, weld 324 also continues around the corner to join plates D-32 to A-7 as shown on the attached sketch and is not complete. Welded portion of weld 324 is 3/16" short of corner.

Documentation in the vault indicates weld 694 is complete. Weld 694 is not complete as shown on the attached sketch. Welded portion of weld 694 is one inch short of the corner. Incomplete fusion was also noted (see sketch)

DISPOSITION: 1. Complete weld 324. Inspect and document the weld as required.

2. Repair weld defect with RPS. Complete weld 694. Inspect and document the weld as required.

NOTE: James Cole either did not inspect these welds before he signed them off, or he did not have the ability to perform inspections properly. It is clear to see that the welds were not properly done and were not completed.

NCR M-83-01847 dated 7/7/83

Weld 166 and 154

PROBLEM: While performing a cleanliness inspection of welds 166 and 154 the following conditions were noted.

Condition #1 The backing bar at the intersection of welds 166 and 153 has been ground through.

Condition #2 The backing bar at the intersection of welds 154 and 151 lacks 3/8" of running the full length of the weld. Hold tag Applied

DISPOSITION: Issue RPS to repair hole in backing strip. The area of weld without backing shall be prepped for disposition of a full pen weld without backing using the GTAW process.

NOTE: The NCR was written in 1983 and a hold tag applied. It has not been dispositioned yet, and there is no copy of this NCR in traveler 151. There is no RPS in package for weld 154. 154 was signed off by Don Vogt, S.M. McCoy, for steps 2, 3, and 4. Jim Cole inspected 151 on 4/20/80, and 153 on 4/24/80.

M-83-00907 QI-QP-11.14-6 Rev. 3, para. 3 3/28/83

The quality of field welds 243, 859, and 871 is indeterminate due to the following:

ITEM 1 - Steps 2, 3, and 4 on (inspection traveler) weld No. 243 have been N/A'ed. These attributes are applicable to weld 243, and it cannot be determined whether this work was previously accomplished and accepted by QC.

ITEM 2 - On (inspection traveler) weld Nos. 859 and 871, hold points have been previously signed by QC personnel. No controlled document can be produced delineating the location and/or orientation of said weld nos., and piece to piece entries are incomplete or incorrect, therefore, indeterminate (these welds are not identified on any design document).

Disposition: Steps 2, 3, and 4 are covered on welds number 859 and 860.

Per CCP-38 craft shall assign weld numbers to welds and the numbers shall be shown, on marked up copy of the drawing. After completion of the liner, the drawing will be submitted to the vault.

M-83-00795 QI-QP-11.14-6 Rev. 2, para: Attach. I Step 5 3/17/83

A review of Stainless Steel Liner Travelers, for RB#2 Cavity welds, has found that the required Fit-up/Cleanliness inspection of inside (waterside) welds cannot be verified as being performed. Quality of welds indeterminate.

Disposition: Subject welds are seam welds utilized to provide leak tightness of the liner. Acceptability of welds shall be based on vacuum box and hydrostatic tests.

M-83-01316 CP-QP-16.0 8 2.2.1
QI-QP-11.14-6 Rev 3 para 3.4.1 5/11/83

During inspection of refueling liner, weld seam #256 weld repair found backing bar not installed as required. Area ground out has concrete in contact with plate in required weld area. Review of travelers and documentaion on 256, dates on fit-up and cleanliness, VT of backing strip tack/fillet welds is inconsistant.

DISPOSITION: Issue RPS to install back-up bar and edge, prepar base metal for deposition of full penetration weld. Chip concrete of required, up to ¼" deep behind back-up bar to facilitate back-up bar to facilitate back-up bar installation.

PART VI: NON CONFORMING CONDITIONS DISPOSITIONED BY DCA's AND NCR's

NCR M-84-01969 & DCA 20,814 WELDING PERFORMED WITHOUT QC INSPECTION

15 Welds involved

Problem: Per the NCR referenced below, the following welds shown on Bostrom-Bergen drawing 2401-A sheet E2, did not have their fit-up inspected prior to welding: Weld Numbers 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 632, 650, 651, 652, and 653. Therefore their conformance with SS-18, Sect. 6.6 is in question.

Solution: The requirements of section 6.6 are waived for the above welds. The welds listed are acceptable without a QC inspection of their fit-up. All other QC inspections remain Applicabe.

See Exhibit #1

NCR M-84-00498 P.T. REPORTS FILLED OUT USING WRONG PROCEDURE NUMBER

41 Welds involved

Problem: During review of Documentation of welds and Inspection in S/S Liner in RB#2 it was noted that PT reports were filled out using procedure #QI-QP 11.14-1 rev. 1 as a NDE Procedure. At this time QI-QP 11.14-1 was in Rev. 3. The proper procedure to be used at that time was QI-QAP 10.2-1 rev. 1. These reports were used in closing NCR# M-82-00059. The following welds are affected by this error: 1169, 1170, 1171, 1172, 1175, 1176, 1177, 1178, 1179, 1181, 1182, 1183, 1184, 1185, 1186, 1187, 1188, 1187, 1188, 1189, 1190, 1191, 1193, 1192, 1194, 1195, 1196, 1197, 1198, 1199, 1200, 1201, 1202, 1203, 1204, 1205, 1206, 1207, 1208, 1209, 1210, 1355, and 1356.

Disposition: QC shall correct PT Reports to show proper NCE procedure number and reference this NVR number on those reports.

NOT: There was no copy of NCR M-82-00059 in any of the packages. Rev. 1 was issued for the above NCR to delete welds 1355 and 1356.

See Exhibt #2

Lack of QC Verification for Fit-up and Cleanliness - No QC Surveilance at all.

NCR M-84-01969: The following welds did not have the Fit-up Inspection required prior to welding.

DCA NO. 20,814: Per the NCR referenced below the following welds shown on Bestrom-Bergen dwg. 2401-A sheet E2, did not have their Fitup inspected prior to welding: Therefore their conformance with SS-18 sect. 6.6 is in question.

Solution: DCA waived the requirements of section 6.6

618	619	620	621	622	623	624	625	626
627	632	650	651	652	653			

NCR M-84-00498: P.T. Reports filled out using the wrong procedure No.

"During review of Document of inspections it was noted that QI-QP-11.14-1 was used as a NDE procedure. The correct procedure at that time was QI-QAP-10.2-1. These reports were used to close out NCR M-82-00059. The following welds were affected by this error."

1169	1170	1171	1172	1175	1176	1177	1178	1179
1180	1181	1182	1183	1184	1185	1186	1187	1188
1190	1191	1192	1193	1194	1195	1196	1197	1198
1199	1200	1201	1202	1203	1204	1205	1206	1207
1209	1210							

EXHIBIT 2

Brown & Root, Inc.

EOI Inspection Unit

988
WELD NO.

B&R Stainless Steel Liner Inspection Traveler

PROJECT: CPSES JOB NO: 35-1195 UNIT 2 PAGE 1 OF 3

UFB00831	N. Trans. Canal	Stainless Steel	7/16"	Angle to Pl A41
Drawing No.	Pool	Metal Type	Mtl. Thk.	PC. to PC.

☐ Plate to Plate ☐ Insert to Plate ☑ Angle to Plate ☐ Other _____

Welder Symbol	WPHL No.	Weld Proced.	Hold Point
AEO	D-080	88023	5
BAG	D-251	88023	5
BAF	D-255	88023	7
BAF	D-262	88023	7
BAG	D-717	88023	7
BAG	D-1378	88023	7
BAG	D-1438	88023	7

BROWN & ROOT
RECEIVED
MAR 10 1980
FILES NUCLEAR
QUALITY ASSURANCE

PERM. PLT. RECORD
RTN L FILE LOC 17.1.9A.7
SUBFILE CODE 9.9.5

1. Fit up and Cleanliness of Above:

NA	NA	NA
Results	Inspector Signature	Date

2. V.T. of Backing Strip Tack/Fillet Welds:

NA	NA	NA.
Results	Inspector Signature	Date

3. Cleanliness of Channel, Liner, and B. Strip:

NA	NA	NA
Results	Inspector Signature	Date

4. Final V.T. of Channel Fillet Weld:

NA	NA	NA
Results	Inspector Signature	Date

5. Inside Fit Up and Cleanliness:

Sat.	Mike Brooks	8-27-79
Results	Inspector Signature	Date

6. V.T. of Fillet Prior to Grinding:

NA	NA	NA
Results	Inspector Signature	Date

7. Final V.T. of Inside Weld:

Sat	Robert J Kamey	2-26-80
Results	Inspector Signature	Date

8. Completion of Weld Inspection: (NDE P200)

Sat.	James W. Cole	3-6-80
Results	Inspector Signature	Date

BROWN & ROOT, INC.

CP-QCI-2.11-1
Revision 1

QUALITY ASSURANCE DEPARTMENT

STAINLESS STEEL LINER INSPECTION TRAVLER/NDE REPORT

JWC 3.3.80

PROJECT: CPSES JOB NO.: 35-1195 UNIT 2 PAGE ~~4~~ 2 OF ~~7~~ 3

DRAWING WEB 00831	POOL Fuel Bldg North Canal	MTL TYPE S/S	MTL. THICKNESS 3/16"
WELD/ITEM NO. 988	PC. TO PC. ANGLE TO PL A41		___ Plate to Plate ___ Insert to Plate ✓ Angle to Plate

WMR NO.	42903	42903	54066	54018	54079	61660	61672
WELD PROCEDURE	88023	88023	88023	88023	88023	88023	88023
WELDER SYMBOL	AIH	AIH	AEP	ATH	AEP	AET	AEK
STAGE OF MANUFACTURE	Fit-up	TACK B.S.	TACK B.S.	FINAL Channel Weld	channel Final	Etop to Box Assy	B.S. O.U. Box Assy

DESCRIPTION(s) and INSPECTION REMARK(s)	RESULTS	INSPECTOR SIGNATURE	DATE
1. Fit up of Liner (Plate) to plate, (angle), insert. Cleanliness of liner and backing	SAT	[signature]	5-2-78
2a. V.T. of backing strip (…) fillet welds.	SAT	[signature]	5-2-78
2b. Cleanliness of channel, liner and backing strip.	SAT	[signature]	5-2-78
3. Final V.T. on Channel Welds.	SAT	[signature]	5-2-78
4. Liner Fit-up Verification. Cleanliness Verification			
5a. Final V.T.	X	X	X

Acceptance std. … & H… 35-55-…

Dwell Time

5b. Penetrant Mfg. Magnaflux-Spotcheck-Batch ______ ______

Cleaner Mfg. Magnaflux-Spotcheck-Batch ______

Developing Time

Developer Mfg. Magnaflux-Spotcheck-Batch ______ ______

NDE Procedure 35…-…-5350 Attach. 63

Surface As Welded ______ Ground ______ Other ______

Final P.T. ______ ______ ______

5c. Vacuum Box ______ by ______ Gasket Type ______ Solution Type ______

Pretest Cleaning ______ Pressure ______ Temperature ______ NDE Procedure 600 ______

Solution Application Method ______ Post Test Cleaning ______

Gauge Serial Number ______ Pressure Differential Maintained for ______ Sec. ______ Min.

Final V.B. ______

N/A - Not Applicable

Satisfactory ___ Unsatisfactory ___ INSPECTOR ______ DATE ______ CERT. LEVEL ___

988

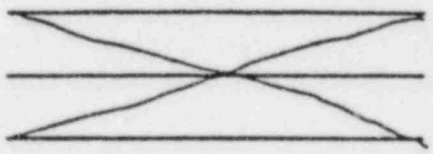
Weld No.

Acceptance Std.
Gibbs & Hill 2323-SS-18

5b. Penetrant Mfg. Magnaflux-Spotcheck

Cleaner Mfg. Magnaflux-Spotcheck

Developer Mfg. Magnaflux-Spotcheck



NDE Procedure
300-NB-5350 Attach. 6B

Final P.T. Level II SAT. (RESULTS) Robert J Kamney (INSPECTOR SIGN.) 2-26-80 (DATE)

5c. Vacuum Box GASKET TYPE SOLUTION TYPE

24" by 5" rubber SNOOP

Pretest Cleaning Sat. Pre ssure 2-5 Temoerature 70° NDE Procedure 600

Solution Application Method Squeeze B. Post Test Cleaning Sat.

Gauge Serial Number 898 Preassure Differential Maintained for 20 Sec. 0 Min.

Final V.B. James W. Cole

N/A - Not Applicable

Satisfactory ✓ Unsatisfactory ___ Level II Inspector JWC Date 3-5-80