EPEI ELECTRIC POWER RESEARCH INSTITUTE

2009-193

BWR Vessel & Internals Project (BWRVIP)

June 12, 2009

Document Control Desk U. S. Nuclear Regulatory Commission 11555 Rockville Pike Rockville, MD 20852

Attention: Joseph Williams

Subject: Project No. 704 - Transmittal of BWRVIP Summary of BWR Dissimilar Metal Weld Survey

- Reference: BWRVIP Letter 2009-137 from Rick Libra (BWRVIP Chairman) to Joseph Williams (NRC), "Project No. 704 - BWRVIP Summary of BWR Dissimilar Metal Weld Survey" dated April 8, 2009
- Reference: BWRVIP Letter 2009-179 from Rick Libra (BWRVIP Chairman) to Joseph Williams (NRC), "Project No. 704 – Re-transmittal of BWRVIP Summary of BWR Dissimilar Metal Weld Survey" dated May 18, 2009

The purpose of this letter is to re-transmit five (5) copies of the "BWRVIP Summary of BWR Dissimilar Metal Weld Survey". This document was previously transmitted to the NRC by the BWRVIP letter 2009-137 and 2009-179 referenced above. This document is being retransmitted to the NRC to include a new affidavit that was not submitted with the original BWRVIP transmittal letter 2009-179 referenced above. This transmittal has been revised to conform to the NRC processing into ADAMS by the Document Control Desk. This document is being transmitted to the NRC for information only.

The dissimilar metal weld information contained in Attachment 1 details the quantity of dissimilar metal welds, identifies the category of the weld in accordance with BWRVIP-75-A, indicates the type of weld stress improvement applied, and summarizes the weld examination history for each weld category since 1998 through February 2007 for Categories A and B, and 1998 through February 2009 for Categories C, D and E.

The BWRVIP continues to monitor the status of dissimilar metal welds, work on guidance for dissimilar metal welds, and provide support to the member utilities. In accordance with BWRVIP recommendations and in response to industry OE, plants have performed examination record reviews of all Category D DM welds (regardless of material) and all Category C DM welds with 82/182 metal exposed to the environment. This review identified some dissimilar metal Category D welds that were not previously identified or Category D welds that were previously mis-categorized.

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- The updated total number of dissimilar metal welds within the scope of BWRVIP-75-A is 1001. The number of welds in each category is:
 - o Category A 331

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- o Category B 102
- o Category C 359
- o Category D 179
- o Category E 30
- 31 of the 35 U.S. BWRs have performed examinations on all Category D dissimilar metal welds that fully comply with the requirements of ASME Code Section XI, Appendix VIII, Supplement 10. These plants account for 141 of the 179 Category D weld population.
- 4 of the 35 U.S BWRs have performed examinations on a portion of their Category D dissimilar metal welds that fully comply with the requirements of ASME Code Section XI, Appendix VIII, Supplement 10. These plants account for the remaining 38 of the 179 Category D weld population. Of the 38 welds, 26 have been examined with a Supplement 10 examination and 12 remain. Each of the licensees with remaining Supplement 10 Category D welds exams has communicated their examination schedules for completing the exams and they are all scheduled for completion in their next refueling outage and thus no later than the end of 2010.
- 23 of the 35 U.S. BWRs have performed examinations on all Category C dissimilar metal welds that fully comply with the requirements of ASME Code Section XI, Appendix VIII, Supplement 10. These plants account for 108 of the 359 Category C weld population.
- 12 of the 35 U.S BWRs have performed examinations on a portion of their Category C dissimilar metal welds that fully comply with the requirements of ASME Code Section XI, Appendix VIII, Supplement 10. These plants account for the remaining 251 of the 359 Category C weld population. Of the 251 welds, 124 have been examined with a Supplement 10 examination and 127 remain.

Please note that the enclosed Attachment 1 contains proprietary information. A non-proprietary version is enclosed as Attachment 2. This non-proprietary version is identical to the enclosed proprietary table except that the proprietary information has been deleted.

A letter requesting that the information in Attachment 1 be withheld from public disclosure and an affidavit describing the basis for withholding this information are provided as Attachment 3. All the proprietary information in Attachment 1 is considered "trade secrets" in accordance with 10CFR2.390(a)(4).

The BWRVIP remains committed to work on this issue and support the member utilities. However, questions regarding plant specific data or planned actions should be directed to the licensee. If you have any technical questions on this subject please call Bob Geier (Exelon, BWRVIP Assessment Committee Technical Chairman) at 630.657.3830 or Bob Carter (EPRI) at 704.595.2019.

Sincerely,

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Rick libre

Rick Libra Exelon Chairman, BWR Vessel and Internals Project

cc: Matthew A. Mitchell, NRC



ELECTRIC POWER RESEARCH INSTITUTE Attachment 3

CHRISTIAN B. LARSEN Vice President and Chief Nuclear Officer

June 12, 2009

Document Control Desk Office of Nuclear Reactor Regulation U.S. Nuclear Regulatory Commission Washington, DC 20555-0001

Subject: Request for Withholding of the following Proprietary Document:

BWRVIP Letter 2009-193 from Rick Libra (BWRVIP Chairman) to Joseph Williams (NRC), with attachment: "BWRVIP Summary of BWR Dissimilar Metal Weld Examinations," dated June 12, 2009

To Whom It May Concern:

This is a request under 10 C.F.R. §2.390(a)(4) that the U.S. Nuclear Regulatory Commission ("<u>NRC</u>") withhold from public disclosure the information identified in the enclosed Affidavit consisting of the proprietary information owned by Electric Power Research Institute, Inc. ("<u>EPRI</u>") identified above (the "<u>Correspondence</u>"). Proprietary and non-proprietary versions of the Correspondence and the Affidavit in support of this request are enclosed.

EPRI desires to disclose the Correspondence in confidence as a means of exchanging technical information with the NRC. The Correspondence is not to be divulged to anyone outside of the NRC or to any of its contractors, nor shall any copies be made of the Correspondence provided herein. EPRI welcomes any discussions and/or questions relating to the information enclosed.

If you have any questions about the legal aspects of this request for withholding, please do not hesitate to contact me at (650) 855-2329. Questions on the content of the Correspondence should be directed to Jonathan Kubiak of EPRI at (650)855-2458.

Sincerely,

C.B.A

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3420 Hillview Avenue, Palo Alto, CA 94304-1338 USA • 650.855.2329 • Fax 650.855.8759 • cblarsen@epri.com

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AFFIDAVIT

RE: Request for Withholding of the Following Proprietary Document:

BWRVIP Letter 2009-193 from Rick Libra (BWRVIP Chairman) to Joseph Williams (NRC), with attachment: "BWRVIP Summary of BWR Dissimilar Metal Weld Examinations," dated June 12, 2009

I, CHRISTIAN B. LARSEN, being duly sworn, depose and state as follows:

I am a Vice President and the Chief Nuclear Officer of Electric Power Research Institute, Inc. whose principal office is located at 3420 Hillview Avenue, Palo Alto, California ("<u>EPRI</u>") and I have been specifically delegated responsibility for the above-listed Correspondence that is sought under this Affidavit to be withheld (the "<u>Correspondence</u>"). I am authorized to apply to the U.S. Nuclear Regulatory Commission ("<u>NRC</u>") for the withholding of the Correspondence on behalf of EPRI.

EPRI requests that the Correspondence be withheld from the public on the following bases:

Withholding Based Upon Privileged And Confidential Trade Secrets Or Commercial Or Financial Information:

a. The Correspondence is owned by EPRI and has been held in confidence by EPRI. All entities accepting copies of the Correspondence do so subject to written agreements imposing an obligation upon the recipient to maintain the confidentiality of the Correspondence. The Correspondence is disclosed only to parties who agree, in writing, to preserve the confidentiality thereof.

b. EPRI considers the Correspondence and the proprietary information contained therein (the "<u>Proprietary Information</u>") to constitute trade secrets of EPRI. As such, EPRI holds the Correspondence in confidence and disclosure thereof is strictly limited to individuals and entities who have agreed, in writing, to maintain the confidentiality of the Correspondence. EPRI made a substantial economic investment to develop the Correspondence, and, by prohibiting public disclosure, EPRI derives an economic benefit in the form of licensing royalties and other additional fees from the confidential nature of the Correspondence. If the Correspondence and the Proprietary Information were publicly available to consultants and/or other businesses providing services in the electric and/or nuclear power industry, they would be able to use the Correspondence for their own commercial benefit and profit and without expending the substantial economic resources required of EPRI to develop the Correspondence.

c. EPRI's classification of the Correspondence and the Proprietary Information as trade secrets is justified by the <u>Uniform Trade Secrets Act</u> which California adopted in 1984 and a version of which has been adopted by over forty states. The <u>California</u> <u>Uniform Trade Secrets Act</u>, California Civil Code §§3426 – 3426.11, defines a "trade secret" as follows:

"Trade secret' means information, including a formula, pattern, compilation, program device, method, technique, or process, that:

(1) Derives independent economic value, actual or potential, from not being generally known to the public or to other persons who can obtain economic value from its disclosure or use; and

(2) Is the subject of efforts that are reasonable under the circumstances to maintain its secrecy."

d. The Correspondence and the Proprietary Information contained therein are not generally known or available to the public. EPRI developed the Correspondence only after making a determination that the Proprietary Information was not available from public sources. EPRI made a substantial investment of both money and employee hours in the development of the Correspondence. EPRI was required to devote these resources and effort to derive the Proprietary Information and the Correspondence. As a result of such effort and cost, both in terms of dollars spent and dedicated employee time, the Correspondence is highly valuable to EPRI.

e. A public disclosure of the Proprietary Information would be highly likely to cause substantial harm to EPRI's competitive position and the ability of EPRI to license the Proprietary Information both domestically and internationally. The Proprietary Information and Correspondence can only be acquired and/or duplicated by others using an equivalent investment of time and effort.

I have read the foregoing and the matters stated herein are true and correct to the best of my knowledge, information and belief. I make this affidavit under penalty of perjury under the laws of the United States of America and under the laws of the State of California.

Executed at 3420 Hillview Avenue, Palo Alto, California being the premises and place of business of Electric Power Research Institute, Inc.

June 12, 2009

C.S.A

Christian B. Larsen

State of California) County of Santa Clara)

Subscribed and sworn to (or affirmed) before me on this <u>/2th</u> day of <u>June</u>, 20<u>09</u>, by <u>Christian B. Larsen</u>, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

Signature

(Seal)



Details of the BWR Fleet Category A through E Dissimilar Metal Weld Population

Attachment 2 Non-Proprietary

T											t		U.S. I	BWR D	issimi	lar Metal	Weld Summary	Sheet							
				Weld	Categon	v ner -		I			ş	tress l	nprov	/ement	sby¥	Veld C	ategor	у				Ins	pection Summ	ary	
Plant #	U. S. Plants	<u>Total #</u> Welds	elds		BWRVIP-75-A		A	1	B	IHSI	C		1	r—		E	Overtay	# Welds not SI or overlaid	Total # Welds Examined	Total # of UT Exams	Total # of non Supp 10	Total # of Supp 10	# Cat C DM welds w/ 182 Exposed to Env. NOT Examined	# Cat D DM welds NOT Examined	
			A	в	L L		E		Insi	MSIP	HSI	MSIP	IHSI	MSIP	IHSI	MSIP	IHSI	Ovenay	<u> </u>			Exams	Exams	w/Supp 10	w/Supp 10
1		36	27 ·	0	7	2	0	27	0	0	0	7	0	0	0	0	0	0	2	36	38	2	36	0	0
2		35	20	0	9	5	1	0	14	0	0	7	2	0	0	0	0	1	11	10	15	9	6	0	΄ο
3		36	20	0	16	0	0	16	0	0	0	16	0	0	0	0	0	0	4	21	24	19	5	0	0
4		30	14	0	7	9	0	0	0	0	0	4	3	0	0	0	0.	0	23	13	20	6	14	0	0
5		22	10	0	7	3	2	0	0	0	0	4	3	0	0	2	0	0	13	9	10	1	9	0	0
6		<u>` 31</u>	0	0 -	0	31	0	0	0	0	0	0	0	0	0	0	0	0	31	31	36	5	31	0	0
7		43	13	5	25	0	0	13	0	0.	5	25	0	0	0	0	0	0	0	36	53	31	22	10	0
8		22	21	0	0	1	0	0	21	0	0	0	0	0	0	0	0	0	1	14	15	12	3	0	0
9		37	19	0	9	9	0	1	0	0	0	9	0	2	0	0	0	0	25	23	32	23	9	0 ·	0
10		27	18	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	27	14	23	14	9	0	0
11		30	0	0	11	15	4	0	0	0	0	0	11	0	0	0	0	4	15	30	43	11	32	0	0
12		24	0	24	0	0	0	0	0	19	5	0	0	0	0	0	0	0	0	13	15	6	9	0	0
13		27	5	0	0	20	2	0	0	0	0	0	0	0	0	0	0	2	25	18	49	31	· 18	0	4
14		34	0	0	34	0	0	0	0	0	0	0	34	0	0	0	0	0	0	34	37	24	13	21	0
15		21	0	0	17	0	4	0	0	0	0	6	11	0	0	• 0	0	4	0	18	19	7	12	. 5	0
16		.29	0	0	25	3	1	0	0	0	0	13	12	0	3	0	0	1	0	28	28	14	14	14	0
17		27	5	0	17	2	3	0	0	0	0	17	0	0	0	0	0	3	7.	26	60	56	4	13	2
18		40	0	21	17	2	0	0	0	0	21	17	0	0	0	0	0	0	2	18	18	18 .	0	16	2
19		42	5	34	3	0	0	0	0	33	1	3	0	0	0	0	0	0	5	5	5	5	0	0	0
20		29	6	0	22	0	1	0	0	0	0	22	0	-0	0	1	0	0	6	28	34	25	9	14	0
21		29	11	18	0	0	0	0	0	18	0	0	0	0	0	0	0	0	11	20	18	14	4	0	0
22		30	30	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	16	12	13	10	3	0	0
23		15	0	0	0	14	1	0	0	0	0	0	0	0	0	0	0	0	15	14	14	4	10	· 0	4
24		30	0	0	0	28	2	0	0	0	0	0	0	0	0	1	0	1	28	30	66	36	30	0	0
25		19	0	0	16	3	0	0	0	0	0	10	6	0	0	0.	0	0	3	10	17	2	15	4	0
26		27	21	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	27	11	17	11	6	0	0
27		27	26	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	26	13	13	9	4	0	0
28		36	11	0	23	0	2	0	0	0	0	23	0	0	0	1	0	1.	11	26	28	14	14	10	0
29			0	0	0	17	3		0	0	0	0	0	0	0	0	0	3	17	20	20	1	19	0	0
30		24	13	0	11	0	0	0	0	0	0	11	0	0	0	0	0	0	13	8	8	8	0	0	0
31		28	16	0	12	0	0	0	0	0	0	12	0	0	0	0	0	0	16	4	4	3	1	1	0
32			0	0	27	0	0	0	0	0	0	27	0	0	0	0	0	0	0	27	27	0	27	0	0.
33		23	0	0	21	0	2	0	0	0	0	21	0	0	0	0	0	2	0	23	18	0	18	3	0
34			0	0	22	0	0	0	0	0	0	22	0	0	0	0	0	0	0	22	22	19	3	16	0
35	TOTALS	22 1001	20	0	0 359	0	2	0 57	12	0 70	0 32	0 277	0 82	0	0	0	0	2	388	0	9	0 450	9 418	0	0 12

BWRVIP U.S. BWR Dissimilar Metal Weld Population Table

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					Category A D	issimilar Met	al Weld				
				Improvement ails			N	/eld Examinati	on Details		
Plant		Total BWRVIP- 75-A Weld	MSIP	IHSI 🕔	Sum	mary	# Exams	w/ Supp 10	# Exams w/ I	T	
<u>#</u>	<u>U. S. Plants</u>	Population Count	Total # Welds MSIP	Total # Welds IHSI	Total # Welds Examined	Total # of Exams	Manual	Auto	Manual	Auto	Welds Mit. w HWC
1		27	27	0	27	27	13	14	0	0	0
2		20	0	14	1	1	0	1	0	0	1
3		20	16	0	5	5	0	3	0	2	5
4		14	0	0	1	1	1	0	0	0	. 10
5		10	0	0	0	0	0	0	0	0	10
6		. 0	0	0	0	0	0	0	0.	0	0
7		13	13	0	9	12	2	2	2	6	2
8		21	0	21	13	13	2	0	3	8	19
9		19	1	0	9	9	0	0	0	9	1
10		18	0	0	5	5	0	0	0	5	12
11		0	0	0	0	0	0	0	0	0	0
12		0	0	0	0	0	0	0	0	0	0
13		5	0	0	0	0	0	0	0	0	1
14		0	· 0	0	0	0	0	0	0	0	0
15		0	0	0	0	0	0	0	0	0	0
16		0	0	0	0	0	0	0	0	0	0
17	·	5	0	0	5	5	0	0	5	0	4
18	·	0	0	0	0	0	0	0	0	0	0
19		5	0	0	2	2	0	0	0	2	0
20		6	0	0	5	5	0	0	0	5	0
21		11	0	0	7	7	1	1	3	2	3
22		30	0	14	12	13	3	0	10	0	10
23		0	0	0	0	0	0	0	0	0	0
24	·	0	0	0	0	0	0	0	0	0	0
25		0	0	0	0	0	0	0	3	2	0
26 27		21 26	0	0	5 12	5	0	1	5	4	0
27		<u> </u>	0	0	2	2	0	0	2	4	6
28	· · · · · · · · · · · · · · · · · · ·	0	0	0	0	0	0	0	0	0	0
<u>-29</u> -30	·	13	0	0	3	3	0	0	3	0	2
<u>30</u> 31		13	0	0	1	1	0	0	1	0	2
32		0	0	0	0	0	0	0	0	0	0
33		0	0	0	0	0	0	0	0	0	0
34		0	0	0	0	0	0	0	0	0	0
35		20	0	12	0	8	5	3	0	0	0
55	TOTALS	331	57	61	124	136	29	25	37	45	88

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							C	ategory E	3 Dissimilar N	Aetal Weld							
	<u>U. S. Plants</u>	Total BWRV	/IP-75-A Welc Count	Population		Weld	Stress Impre	ovement	Details		Weld Examination Details						
Plant #		Total DM	# DM welds	# DM welds		MSIP			IHSI		# Weld	s Examined w/ \$	Supp 10	# Welds w/o	Welds Mit. w/ HWC		
-		Weld Population #	w/ 182 Exposed to Env.	other (e.g. SS)	Total # Welds MSIP	# DM welds w/ 182 Exposed to Env.	# DM welds other (e.g. SS)	Total # Welds IHSI	# DM welds w/ 182 Exposed to Env.	# DM weids other (e.g. SS)	Total # DM welds Examined	# DM welds w/ 182 Exposed to Env.		# DM welds w/ 182 Exposed to Env.	# DM welds other (e.g. SS)		
1		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5		0	0	0	0	0	0	0	0	0	0.	0	0	0	0	0	
6		0	0	0	0	0	0	0	0	0	0	0	0	0	0.	0	
7		5	0	5	0	0	0	5	0	5	3	0	3	0	2	2	
8		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9		0	0	0	0	0	0	0	0	0	0	0	0	0	· 0	0	
10		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12		24	19	5	19	19	0	5	0	5	9	7	2	12	3	19	
13		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
14		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15	•	0	0	0	0	0	0	0	0	0	0	. 0	0	0	0	0	
16		0	0	0	0	0	0	0	0	0	· 0	0	0	0	. 0	0	
17		0	0	0.	0	0	0	0.	0	0	0	0	0	0	0	0	
18		21	12	9	0	0	0	21	12	9	0	0	0	12	9	0	
19		34	27	7	33	27	6	1	0	1	0	0	0	27	7	0	
20		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
21		18	18	0	18	18	0	0	0	0	2	2	0	16	0	4	
22		0	0	0	0	0	0	0	· 0	0	0	0	0	0	0	0	
23		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
24		0.	0	0	0	0	0	0	0	0	0	0	0	0	0 ·	0	
25		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
26		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
27		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
28		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
29		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
31		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
32		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
33		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
34		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
35	TOTALS	0 102	0 76	0 26	0 70	0	6	0	0	0	0	0	0	0	0	0	

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$\begin{array}{c c c c c c c c c c c c c c c c c c c $								Categ	ory C Dissim	ilar Metal We	ld					
Weld Population # World Exposed Exposed Env. 1 7 0 2 9 0 3 16 0 4 7 4 5 7 4 6 0 0 7 25 25 8 0 0 9 9 0 10 0 0 11 111 0 12 0 0 13 0 0 14 34 34 15 17 17 16 25 25 17 17 17 18 17 16 19 3 0 22 0 0 23 0 0 24 0 0 25 16 14 26 0 0 27 1 0	Total BWRVI	P-75-A Weld Count	Population		We	d Stress Impre	ovement						Weld Examination	Details		
Weld Weld Word Population # Exposed Expo		# D14			MSIP			IHSI		# Welds	Examined w	Supp 10	# Welds w/o S	upp 10 Exam		Welds Mit.
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Weld Population #	w/ 182 Exposed to	# DM welds other (e.g. SS)	Total # Welds MSIP	# DM welds w/ 182 Exposed to Env.	# DM welds other (e.g. SS)	Total # Welds IHSI	# DM welds w/ 182 Exposed to Env.	# DM welds other (e.g. SS)	Total # DM welds Examined	# DM welds w/ 182 Exposed to Env.	# DM welds other (e.g. SS)	# DM welds w/ 182 Exposed to Env.	# DM welds other (e.g. SS)	Examination Schedule for Supp 10 Exams of remaining DM Welds with 182 Exposed to Env.	w/ HWC
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		-	7	7	0	7	0	0	0	7	0	7	0	0	L	0
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$			9	7	0	7	2	0	2	0	0	0	0	9		3
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		-	16	16	0	16	0	0	0	2	0	2	0	14		16
$\begin{array}{c c c c c c c c c c c c c c c c c c c $			3	4	4	0	3	0	3	4	4	0	0	3		7
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			3	4	4	0	3	0	3	4	4	0	0	3		5
$\begin{array}{c c c c c c c c c c c c c c c c c c c $			0	0 25	0 25	0	0	0	0	0	0	0	0	0	(7) 2000 ((2) 2011	0
$\begin{array}{c c c c c c c c c c c c c c c c c c c $			0			0				15	15		10	0	(7) 2009 / (3) 2011	14
$\begin{array}{c c c c c c c c c c c c c c c c c c c $			9	<u>0</u> 9	0	9	0	0	0	0	0	0	0	0	<u> </u>	- 8
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			9	- 9	0	0	0	0	0	0	0	0	0	0		
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		_	11	0	0	0	11	0		6	0	6	0	5		
$\begin{array}{c c c c c c c c c c c c c c c c c c c $			0	0	0	0	0	0	0	0	0	0	0	0		0
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		_	0	0	0	0	0	0	0	0	0	0	0	0		0
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			0	0	0	0	34	34	0	13	13	0	21	0	(8) 2010 / (13) 2012	0
$\begin{array}{c c c c c c c c c c c c c c c c c c c $			0	6	6	0	11	11	0	12	12	0	5	0	(5) 2010	10
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			0	13	13	0	12	12	0	11	11	0	14	0	(14) 2009	12
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	17	17	- 0	17	17	0	0	0	0	4	4	0	13	. 0	(8) 2009 / (5) 2010	12
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	17	16	1	17	16	1	0	0	0	0	0	0	16	1	(16) 2010	0
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	3	0	3	3	0	3	0	0	0	0	0	0	0	3		0
22 0 0 23 0 0 0 24 0 0 0 25 16 14 26 0 0 0 27 1 0 0 28 23 23 23 29 0 0 0 31 12 2 32 27 27	22	20	2	22	20	2	0	0	0	8	6	2	14	0	(14) TBD	7
23 0 0 24 0 0 0 25 16 14 26 27 1 0 0 28 23 23 23 29 0 0 0 30 11 0 12 2 32 27 27 27 27	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
24 0 0 25 16 14 26 0 0 27 1 0 28 23 23 29 0 0 30 11 0 31 12 2 32 27 27	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
25 16 14 26 0 0 27 1 0 28 23 23 29 0 0 30 11 0 31 12 2 32 27 27	0	0	0	0	0	0	0	0	0	0	0	0	0	· 0		0
26 0 0 27 1 0 28 23 23 29 0 0 30 11 0 31 12 2 32 27 27			0	0	0	0	0	0	0	0	0	0	0	0		0
27 1 0 28 23 23 29 0 0 30 11 0 31 12 2 32 27 27			2	10	8	2	6	6	0	12	10	2	4	0	(4) 2010	10
28 23 23 29 0 0 30 11 0 31 12 2 32 27 27			0	0	0	0	0	0	0	0	0	0	0	0	···· ··· ···· ··· ··· ··· ··· ···	0
29 0 0 30 11 0 31 12 2 32 27 27	1	0	<u>1 ·</u>	1	0	1	0	0	0	1	0	1	0	0		0
30 11 0 31 12 2 32 27 27	23	23	0	23	23	o	0	o	0	13	13	0	10	0	(9) 2009 / Relief request approved 1 weld	14
31 12 2 32 27 27			0	0	0	0	0	0	0	0	0	0	0	0		0
32 27 27			11	11	0	11	0	0	0	0	0	0	0	11		0
			10	12	2	10	0	0	0	1	1	0	1	10	(1) 2010	0
			0	27	27	0	0	0	0	27	27	0	0	0		0
	21	17	4	21	17	4	0	0	0	16	14	2	3	2	(3) 2010	2
34 22 19			3	22	19	3	0	0	0	3	3	0	16	3	(20) 2009	2
35 0 0 TOTALS 359 264			0 95	277	201	1 <u>0</u> 76	0 82	63	0	0	137	22	0	0 73	1	0 130

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BWRVIP U.S. BWR Dissimilar Metal Wled Population Table

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			Weld Stress	Improvement			<u> </u>				
		Total BWRVIP-75-A	MSIP	IHSI	Si	ummary	# Exams v	v/ Supp 10	Schedule for	Welds Mit. w	
Plant #	<u>U. S. Plants</u>	Weld Population Count	Total # Welds MSIP	Totał # Welds IHSI	# Welds w/o Supp 10 Exam	Total # Welds Examined w/Supp 10	Manual	Auto	Inspection of Remaining Welds w/ Supp 10 Exam	HWC	
1		2	0	0	0	2	2	. 0		0	
2		5	0	0	0	5	5	0		5	
3		0	0	0	0	0	0	0		0	
4		9	0	0	0	9	1	8		1	
5		3	0	0	0	3	2	1		1	
6		31	0	0	0	31	5	26		0	
7		0	0	0	0	0	0	0		0 ·	
8		1	0	0	0	1	1	0		· 0	
9		9	2	0	0	9	0	9		4	
10		9	0	0	0	9	0	9		0	
11		15	0	0	0	15	22	0		0	
12		0	0	0	0	0	0	0		0	
13		20	0	0	4	16	4	12	(4) / 2010	15	
14		0	0	0	0	0	0	0		0	
15		0	0	0	0	0	0	0		· 0	
16		3	0	3	0.	3	3	0		0	
17		2	0	0	2	0	0	0	(2) / 2009	0	
18		2	0	0	2	0	0	.0	(2) / 2010	0	
19		0	0	0	0	0	0	0		0	
20		0	0	0	0	0	0	0		· 0	
21		0	0	0	0	0	0	0		0	
22		0	0	0	0	0	0	· 0		0	
23		14	0	0	4	10	3	7	(4) / 2009	6	
24		28	0	0	0	28	2	26		20	
25		3	0	0	0	3	3	0		0	
26		6	0	0	0	6	6	0		0	
27		0	0	0	0	0	0	0		0	
28		0	0	0	0	0	0	0		0	
29		17	0	0	0	17	7	10	1	10	
30		0	0	0	0	0	0	0		0	
31		0	0	0	0	0	0	0		0	
32		0	0	0	· 0	0	0	0		0	
33		0	0	0	0	0	0	0		0	
34		0	0	0	0	0	0	0		0	
35		0	0	0	0	0	0	0		0	

BWRVIP U.S. BWR Dissimilar Metal Wied Population Table

					Catego	ry E Dissimilar						
			Weld St	ress Improvemer		İ.			xamination De	tails		
Diant		Total BWRVIP- 75-A Weld	MSIP	IHSI		Sumn	nary	# Exams w	/ Supp 10/11	# Exams w/ N	on Supp 10/11	Welds Mit. w/
Plant #	<u>U. S. Plants</u>	75-A Weld Population Count	Total # Welds MSIP	Total # Welds IHSI	Overlaid	Total # Welds Examined	Total # Exams	Manual	Auto	Manual	Auto	HWC
1		0	0	0	0	0	0	0	0	0	0	0
· 2		1	0	0	1	1	1	0	0	0	1	1
3		0	0	0	0	0	0	0	0	0	0	0
4		0	0	0	0	0	0	0	0	0	0	00
5		2	2	0	0	2	2	0	2	0	0	2
6		0	0	0	0	0	0	0	0	0	0	0
7		0	0	0	0	0	0	0	0	0	0	0
8		0	0	0	0	0	0	0	0	0	0	0
9		0	0	0	0	0	0	0	0	0	0	0
10		0	0	0	0	0	0	0	0	0	0	0
11		4	0	0	· 4	4	6	4	0	0	2	4
12		. 0	0	0	0	0	0	0	0	0	0	0
13		2	0	0	2	2	3	1	1	1	0	1
14		0	0	0,	0	0	0	0	0	0	0	0
15		4	0	0	4	0	0	0	0	0	0	0
16		1	0	0	1	0	0	0	0	0	0	0
17		3	0	0	3	3	7	0	0	. 7	0	2
18		0	0	0	0	0	0	<u> </u>	0	0	0	00
19		0	0	0	0	0	0	0	0	0.	0	0 ·
20		1	1	0	0	1	3	0	1	0	2	0
21		0	0	0	0	0	0	0	0	0	0	0
22		0	0	0	0	0	0	0	0	0	0	0
23		1	0	0	0	0	0	0	0	0	0	0
24 .		2	1	0	1	2	6	0	2	0	4	1
25		0	0	0	0	0	0	0	· 0	0	0	0
26		0	0	0	· 0	0	0	0	0	0	0	0
_27		0	0	0	0	0	0	0	0	0	0	0
28		2	1	0	1	2	4	0	1	0	3	0
29		3	0	0	3	3	3	1	1	1	0	1
30		0	0	0	0	0	0	0	0	0	0	0
31		0	0	0	0	0	0	0	0	0	0	0
32		0	0	0	0	0	0	0	0	0	0	0
33		2	0	- 0	2	2	2	0	2	0	0	2
												0
35								1				1
34 35	TOTALS	0 2 30	0 0 5	0 0 0	0 2 24	0 0 22	0 1 38	0 1 7	0 0 10	0 0 9	0 0 12	

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BWRVIP U.S. BWR Dissimilar Metal Wled Population Table