Entergy
Operations

Entergy Operations, Inc.
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June 3, 1994

2CAN069401

U. S. Nuclear Regulatory Commission
Document Control Desk
Mail Station P1-137
Washington, DC 20555

Subject: Arkansas Nuclear One - Unit 2
Docket No. 50-368
License No. NPF-6
Request for Verification of Information Regarding
Generic Letter 92-01, Revision 1, "Reactor Vessel Structural Integrity"

Gentlemen:

By letter dated May 4, 1994 (2CNA059401), the NRC requested that Entergy Operations verify that the information provided in its response to Generic Letter 92-01 has been accurately entered in the NRC's summary data file. Comments were requested within 30 days of the date of the letter.

Arkansas Nuclear One (ANO) technical personnel reviewed the information contained in the NRC letter and noted several discrepancies from the data which ANO had previously submitted. The data contained in the June 13, 1978, letter referenced in Enclosure 2, was prepared by the reactor vendor from source documents and thus is believed to be correct. Corrections are annotated (in handwriting) on the attached markup of Enclosure 1, "Summary File for Pressurized Thermal Shock" and Enclosure 2, "Summary File for Upper Shelf Energy" from the May 4, 1994, letter. During the course of this review it was found that the data ANO had submitted on June 13, 1978 (Letter 2-068-10), regarding pressure vessel fracture toughness, is in conflict with information in safety analysis report table 5.2-5. A review is in progress with the reactor vessel supplier to resolve this discrepancy. The reactor vessel supplier is compiling the original source documentation. Once received, this documentation will be used to verify the docketed information on reactor vessel material properties. When this effort is completed, the appropriate licensing basis documents will be updated as necessary.

Should you have any questions regarding this submittal, please contact me.

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A028

Very truly yours,

Dwight C. Mims

Dwight C. Mims
Director, Licensing

DCM/jrh
Attachment

To the best of my knowledge and belief, the statements contained in this submittal are true.

SUBSCRIBED AND SWORN TO before me, a Notary Public in and for Pope **County and the State of Arkansas, this** 3rd **day of** June, **1994.**

M. Jane Davidson

Notary Public
My Commission Expires 4-24-2002

M. JANE DAVIDSON
Notary Public
POPE COUNTY, ARKANSAS
Commission Expires 4-24-2002

cc: Mr. Leonard J. Callan
Regional Administrator
U. S. Nuclear Regulatory Commission
Region IV
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NRC Senior Resident Inspector
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Enclosure 1

Summary File for Pressurized Thermal Shock

Plant Name	Beltline Ident.	Heat No. Ident.	ID Neut. Fluence at EOL/EFPY	IRT_{ndt}	Method of Determin. IRT_{ndt}	Chemistry Factor	Method of Determin. CF	%Cu	%Ni
Arkansas 2 EOL: 7/17/2018	Int. Shell C-8009-1	C8161-3	5.26E19	-26°F	MTEB 5-2	83.65	Table	0.12	0.63
	Int. Shell C-8009-2	C8161-1	5.26E19	0°F	MTEB 5-2	51	Table	0.08	0.59
	Int. Shell C-8009-3	C8182-2	5.26E19	0°F	Plant Specific	51	Table	0.08	0.60
	Lower Shell C-8010-1	C8161-2	5.26E19	12°F	MTEB 5-2	51	Table	0.08	0.59
	Lower Shell C-8010-2	B2545-1	5.26E19	-28°F	MTEB 5-2	44	Table	0.07	0.66
	Lower Shell C-8010-3	B2545-2	5.26E19	-30°F	MTEB 5-2	44	Table	0.07	0.65
	Int. to Lower Shell Circ. Weld 9-203	83650	5.26E19	-10°F	Plant Specific	35.2	Table	0.05	0.08
	Lower Shell Axial Welds 3-203A/C	10120	5.26E19	-56°F	Generic	46.7	Table	0.05	0.18
	Int. Shell Axial Welds 2-203A/C	10120	5.26E19	-56°F	Generic	46.7	Table	0.05	0.18
	Upper to Int. Shell 8-203	10137	1.52E18	-56°F	Generic	115.4	Table	0.23	0.18

Reference

Chemical composition and IRT_{ndt} data are from July 1, 1992, letter from J. J. Fisicaro (EO) to USNRC Document Control Desk, subject: Response to Generic Letter 92-01, Revision 1, "Reactor Vessel Structural Integrity"

Fluence data, chemical composition and IRT_{ndt} for 8-203 weld are reported in a June 18, 1991 letter from J.W. Yelverton (EO) to USNRC.

Summary File for Upper Shelf Energy

Plant Name	Beltline Ident.	Heat No.	Material Type	1/4T USE at EOL	1/4T Neutron Fluence at EOL	Unirrad. USE	Method of Determin. Unirrad. USE
Arkansas 2 EOL: 7/17/2018	Int. Shell C-8009-1	C8161-3	A 5338-1	~~70~~ 66	~~2.731E19~~ 3.28E19	~~95~~ 91	65%
	Int. Shell C-8009-2	C8161-1	A 5338-1	~~70~~ 62	~~2.731E19~~ 3.28E19	~~92~~ 82	65%
	Int. Shell C-8009-3	C8182-2	A 5338-1	~~101~~ 95	~~2.731E19~~ 3.28E19	126	Direct
	Lower Shell C-8010-1	C8161-2	A 5338-1	~~68~~ 67	~~2.731E19~~ 3.28E19	~~90~~ 89	65%
	Lower Shell C-8010-2	82545-1	A 5338-1	~~71~~ 69	~~2.731E19~~ 3.28E19	~~96~~ 92	65%
	Lower Shell C-8010-3	82545-2	A 5338-1	~~74~~ 71	~~2.731E19~~ 3.28E19	~~98~~ 94	65%
	Int. to Lower Shell Circ. Weld 9-203	83650	Linde 0091, SAW	~~116~~ 94	~~2.731E19~~ 3.28E19	125	Direct
	Lower Shell Axial Welds 3-203A/C	10120	Linde 0091, SAW	~~93~~ 92	~~2.731E19~~ 3.28E19	122	Direct
	Int. Shell Axial Welds 2-203A/C	10120	Linde 0091, SAW	~~83~~ 82	~~2.731E19~~ 3.28E19	109	Direct
	Upper to Int. Shell 8-203	10137	Linde 0091, SAW	~~82~~ 79	9.48E17	~~105~~ 101	10°F

References

UUSE data for plates are reported in Tables 5.2-5 and 5.2-16 of ANO-2 FSAR

UUSE data for Int. Shell and Lower Shell Axial Welds are reported in a July 22, 1991 letter from J.J. Fisicaro (EO) to USNRC.

UUSE data for 9-203 and 8-203 Circ. Welds are reported in a June 13, 1978 letter from D.B. Williams (APLC) to USNRC.

Fluence datum is from June 18, 1991, letter from J. W. Yelverton (EO) to USNRC.