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May 31, 2002
L-02-058

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555-0001

Subject: Beaver Valley Power Station, Unit No. 1 and No. 2
BV-1 Docket No. 50-334, License No. DPR-66
BV-2 Docket No. 50-412, License No. NPF-73
Supplement to License Amendment Request Nos. 295 and 167

Pursuant to 10 CFR 50.90, FirstEnergy Nuclear Operating Company (FENOC) requested an amendment to the above licenses in the form of changes to the Technical Specifications. These changes were submitted by FENOC letter L-01-135, dated October 31, 2001. The License Amendment Requests propose the creation of a Pressure and Temperature Limits Report (PTLR) for each unit based on the guidance provided by Generic Letter 96-03 "Relocation of the Pressure Temperature Limit Curves and Low Temperature Overpressure Protection System Limits."

On April 17, 2002, a phone call was held with the NRC staff concerning their review of the subject License Amendment Requests (LARs). The NRC staff requested that the St. Lucie and Fort Calhoun data referenced in the supporting reports submitted with the LAR be added to the proposed PTLR for Beaver Valley Power Station Unit 1. Attachment A contains the requested data as new tables for the Unit 1 PTLR as well as the other revised pages that reflect this change.

Attachment A also contains a revision to Table 4.2-3 of the proposed PTLR for Unit 1. The revision adds a less than or equal sign (≤) before the value specified in the table. This editorial change provides consistency with Technical Specification 3.4.9.3, "Overpressure Protection Systems," for Unit 1. The revisions to the proposed PTLR are denoted by revision bars in the right margin.

The attached changes do not change the safety analysis or no significant hazard evaluation contained in L-01-135.

An implementation period of up to 60 days is requested following the effective date of this amendment.

A001

If there are any questions concerning this matter, please contact Mr. Larry R. Freeland, Manager, Regulatory Affairs/Corrective Action at 724-682-5284.

I declare under penalty of perjury that the foregoing is true and correct. Executed on May 31, 2002.

Sincerely,

M. P. Pearson

c: Mr. D. S. Collins, Project Manager
Mr. D. M. Kern, Sr. Resident Inspector
Mr. H. J. Miller, NRC Region I Administrator
Mr. D. A. Allard, Director BRP/DEP
Mr. L. E. Ryan (BRP/DEP)

Attachment A to L-02-058

Affected Pages

4.2-iv
4.2-4
4.2-12
4.2-14
4.2-15

List of Tables

4.2.3 Supplemental Data Tables

The following tables provide supplemental information on reactor vessel material properties and are provided to be consistent with Generic Letter 96-03. Some of the material property values shown were used as inputs to the P/T limits.

Table 4.2-4, taken from Reference 5, shows the calculation of the surveillance material chemistry factors using surveillance capsule data.

Table 4.2-4a, taken from Reference 2, shows the Calculation of Chemistry Factors based on St. Lucie and Fort Calhoun Surveillance Capsule Data.

Table 4.2-4b, taken from Reference 3, shows the St. Lucie and Fort Calhoun Surveillance Weld Data.

Table 4.2-5, taken from Reference 2, provides the reactor vessel beltline material property table.

Table 4.2-6, taken from Reference 2, provides a summary of the Adjusted Reference Temperature (ARTs) for 22 EFPY.

Table 4.2-7, taken from Reference 2, shows the calculation of ARTs for 22 EFPY.

Table 4.2-8 shows the Reactor Vessel Toughness Data (Unirradiated).

Table 4.2-9, taken from Reference 5, provides RT_{PTS} values for 28 EFPY.

Table 4.2-10, taken from Reference 5, provides RT_{PTS} values for 45 EFPY.

PRESSURE AND TEMPERATURE LIMITS REPORT

Table 4.2-3

Overpressure Protection System (OPPS) Setpoints (TS 3.4.9.3)

FUNCTION	SETPOINT
OPPS Enable Temperature	343°F
PORV Setpoint	≤ 403 psig

Table 4.2-4a

Calculation of Chemistry Factors[a]
(Based on St. Lucie and Fort Calhoun Surveillance Capsule Data)

Material	Capsule	Capsule f[b]	FF[c]	ΔRT_{NDT}[d]	FF * ΔRT_{NDT}	FF^2
St. Lucie Surveillance Weld Metal Heat 90136	97°	0.627	0.869	72.3	76.1	0.755
	104°	0.909	0.973	67.4	79.7	0.947
	284°	1.41	1.10	68.0	90.9	1.21
				SUM:	246.7	2.91
	$CF = \Sigma(FF*RT_{NDT}) \div \Sigma(FF^2) = (246.7) \div (2.91) = 84.8°F$					
Fort Calhoun Surveillance Weld Metal Heat 305414	W-225	0.553	0.834	238	183.0	0.696
	W-265	0.771	0.927	221	194.1	0.859
	W-275	1.28	1.07	219	226.2	1.14
				SUM:	603.3	2.695
	$CF = \Sigma(FF*RT_{NDT}) \div \Sigma(FF^2) = (603.3) \div (2.695) = 223.9°F$					

Notes:

(a) Use of St. Lucie and Fort Calhoun Surveillance Capsule Data approved by NRC letter dated February 20, 2002, "BEAVER VALLEY POWER STATION, UNIT 1 –ISSUANCE OF AMENDMENT RE: AMENDED PRESSURE-TEMPERATURE LIMITS (TAC NO. MB2301)".

(b) f = Calculated fluence (x 10^{19} n/cm^2, E > 1.0 Mev) from Reference 2.

(c) FF = fluence factor = $f^{(0.28 - 0.1 * \log f)}$.

(d) ΔRT_{NDT} values are the measured 30 ft-lb. shift values taken from Reference 2.

PRESSURE AND TEMPERATURE LIMITS REPORT

Table 4.2-4b

St. Lucie and Fort Calhoun Surveillance Weld Data[(a)(b)]

Material	Capsule	Cu	Ni	Irradiated Temperature °F	Fluence 10^{19} n/cm^2	ΔRT_{NDT}
St. Lucie	97°	0.2291	0.0699	546.7	0.627	72.3
Weld Metal	104°	0.2291	0.0699	546.7	0.909	67.4
Heat 90136	284°	0.2291	0.0699	546.7	1.41	68.0
Fort Calhoun	W-225	0.35	0.60	527	0.553	238
Weld Metal	W-265	0.35	0.60	534	0.771	221
Heat 305414	W-275	0.35	0.60	538	1.28	219

Notes:

(a) Use of St. Lucie and Fort Calhoun Surveillance Capsule Data approved by NRC letter dated February 20, 2002, "BEAVER VALLEY POWER STATION, UNIT 1 –ISSUANCE OF AMENDMENT RE: AMENDED PRESSURE-TEMPERATURE LIMITS (TAC NO. MB2301)".

(b) Data contained in this table was obtained from Reference 3.