Commonwealth Edison
1400 Opus Place
Downers Grove, Illinois 60515

December 6, 1994

Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attn: Document Control Desk

Subject: Dresden Nuclear Power Station Units 2 and 3
Quad Cities Nuclear Power Station Units 1 and 2
LaSalle Nuclear Power Station Units 1 and 2
Generic Letter 92-01, Supplement 1, "Reactor Vessel Structural Integrity"
NRC Docket Nos. 50-237/249, 50-254/265 and 50-373/374

References: (a) J. Stang to D. Farrar letter, dated April 14, 1994.

(b) P. Piet to W. Russell letter dated August 11, 1994.

(c) Teleconference between ComEd (J. Schrage, et al) and NRC (R. Pulsifer, et al) on October 20, 1994.

(d) M.A. Jackson to USNRC letter dated July 1, 1992, ComEd response to Generic Letter 92-01.

Gentlemen and Ladies:

The Reference (a) letter required Commonwealth Edison (ComEd) to confirm commitment and applicability of the BWR Owners Group efforts to resolve reactor vessel structural issues, and to verify the information contained in an NRC database. ComEd provided the required information in Reference (b).

During the Reference (c) Teleconference, the NRC requested clarification of the information which was submitted in Reference (b).

The purpose of this letter is to transmit this clarification.

Low Upper Shelf Energy (LUSE)

The applicability of topical report NEDO-32205-A, Revision 1 has been confirmed for Dresden Units 2 and 3, Quad Cities Units 1 and 2, and LaSalle Units 1 and 2.

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Dresden Units 2 and 3

Near-core material surveillance data for Dresden Units 2 and 3 were evaluated as specified in Appendix B of the NEDO Report. The Appendix H capsule data shown in Table 13 of Reference (d) (Table 13 attached as Enclosure 1) were excluded from this evaluation because the fluence values are below the range of Regulatory Guide 1.99 Rev. 2, Figure 2. Since all surveillance data from Dresden Units 2 and 3 shown in Table 14 of Reference (d) (Table 14 attached as Enclosure 2) show a decrease in USE less than predicted in Regulatory Guide 1.99 Rev. 2, the equivalent margin analysis of the NEDO Report is bounding for the plant, based on Appendix B of the NEDO Report.

Quad Cities Units 1 and 2

Near-core material surveillance data for Quad Cities Units 1 and 2 were evaluated as specified in Appendix B of the NEDO Report. The Appendix H capsule data shown in Table 13 of Reference 1 (Table 13 attached as Enclosure 1) were excluded from this evaluation because the fluence values are below the range of Regulatory Guide 1.99 Rev. 2, Figure 2. Ten of the surveillance data shown in Table 14 of Reference (d) (Table 14 attached as Enclosure 2) show a decrease in USE less than predicted in Regulatory Guide 1.99 Rev. 2, and the equivalent margin of the NEDO Report is bounding for the plant. For the two Quad Cities Unit 2 submerged arc weld surveillance data points which show a decrease in USE greater than predicted in Regulatory Guide 1.99 Rev. 2, the plant applicability verification of Appendix B of the NEDO Report was performed, and the results show that the equivalent margin analysis is stable bounding for the plant. This information is provided in Enclosure 3 to this letter.

LaSalle Units 1 and 2

The intent of Appendix B of the NEDO Report is to verify that vessel surveillance capsule data, when available, shown that a given vessel's beltline materials are reacting to irradiation substantially as predicted by Regulatory Guide 1.99 Rev. 2. No material surveillance data has yet been obtained for LaSalle Units 1 and 2. Until such data become available, the evaluation in Section 8 of the NEDO Report demonstrates that the equivalent margins analyses are bounding for all US BWR/2-6 vessels. When material surveillance data becomes available for LaSalle Units 1 and 2, the Appendix B verification will be performed.

To the best of my knowledge and belief, the information contained herein is true and correct. In some respect, this information is not based on my personal knowledge, but upon information furnished by other Commonwealth Edison and contractor employees. Such information has been reviewed in accordance with company practice, and I believe it to be reliable.

We trust that the information is satisfactory; however, should you have any questions, or desire any additional information on this issue, please do not hesitate to contact this office.

Respectfully,

John L. Schrage
Nuclear Licensing Administrator

Enclosures 1 through 3

cc: J.B. Martin, Regional Administrator - RIII
J. Stang, Project Manager - NRR
R. Pulsifer, Project Manager - NRR
W. Reckley, Project Manager - NRR
M. Leach, Senior Resident Inspector - Dresden
C. Miller, Senior Resident Inspector - Quad Cities
D. Hills, Senior Resident Inspector - LaSalle
Office of Nuclear Facility Safety - IDNS

ENCLOSURE 1

Table 13

ComEd Response to Generic Letter 92-01

M.A. Jackson to USNRC letter dated July 1, 1992

TABLE 13. APPENDIX H MATERIAL SURVEILLANCE CAPSULE REPORTS - CVN USE

STATION	CAP #	CAP. FLUENCE	MAT'L	CU	CVN USE (INITIAL)	CVN USE (IRRAD)	CVN USE (%-DROP MEAS)
D2	#8[1]	5.2 E16	BM	.19[5]	139[1]	133[1]	4
		5.2 E16	ESW	.17[5]	96	90	6
D3	#18[2]	7.1 E16	BM	.13	132	147	-11
		7.1 E16	ESW	.21	72	72	0
QC1	#8[3]	5.5 E16	BM	.25	105	105	0
		5.5 E16	ESW	.19	105	102	3
QC2	#18[4]	6.6 E16	BM	.09	135	145	-7
		6.6 E16	ESW	.15	125	90	28

FOOTNOTES:
(1) SWRI Report 06-6901-002, 3/83
(2) SWRI Report 06-7484-003, 2/84
(3) SWRI Report 06-7057, 8/84
(4) SWRI Report 06-7484-002, 3/84
(5) Battelle Columbus Laboratories Memo to CECo, April 30, 1979

ENCLOSURE 2

Table 14

ComEd Response to Generic Letter 92-01

M.A. Jackson to USNRC letter dated July 1, 1992

TABLE 14. NEAR CORE SURVEILLANCE CAPSULE REPORTS - CVN USE

STATION	CAP #	CAP. FLUENCE	MAT'L	CU	CVN USE (INITIAL)	CVN USE (IRRAD)	CVN USE (%-DROP MEAS)	CVN USE* (%-DROP CALC PER 1.99/REV.2)
D2	#2[1]	9.5 E18	BM	.19	139[5]	117	15.8	28
		1.9 E19		.19	139[5]	109	21.6	32
		3.0 E19		.19	139[5]	127	8.63	36
		1.4 E19	ESW	.17	96[5]	80	17	34
		2.23 E19		.17	96[5]	87	9.4	37
		3.5 E19		.17	96[5]	76	21	40
		6.4 E18	SAW	.31	71	51	28	40
		1.87 E19		.31	71	70	1.4	46
		4.6 E19		.31	71	52	27	54
D3	#16[2]	9.25 E18	BM	.14	135	115	14.8	23
		1.02 E19		.14	135	112	17.0	23
		2.06 E19		.14	135	106	21.5	27
		7.7 E18	ESW	.20	70	64	8.6	32
		8.64 E18		.20	70	60	14	33
		1.78 E19		.20	70	59	16	39
		6.15 E18	SAW	.35	65	45	31	40
		1.2 E19		.35	65	41	37	44
		2.06 E19		.35	65	42	35	48
QC1	#4[3]	1.19 E19	BM	.22	106	85	20	37
		4.04 E19		.22	106	73	31	48
		8.90 E18	ESW	.17	100	85	15	30
		3.56 E19		.17	100	75	25	41
		7.2 E18	SAW	.31	72	52	28	40
		2.37 E19		.31	72	49	32	48
QC2	#14[4]	1.27 E19	BM	.10	135	123	8.90	25
		4.14 E19		.10	135	119	11.9	33
		1.25 E19	ESW	.18	125	89	29	35
		3.82 E19		.18	125	80	36	44
		9.0 E18	SAW	.26	87	48	45	39
		2.43 E19		.26	87	41	53	49

NOTES: * CVN USE %-drop based on Figure 2 in Reg. Guide 1.99/Rev.2.

FOOTNOTES:
[1] Battelle Report BCL-585-10, 5/79.
[2] EPRI Report 1021-3, WCAP 10030, 1/82.
[3] EPRI Report 1021-3, WCAP 9920, 9/81.
[4] EPRI Report 1021-3, WCAP 10064, 4/82.
[5] Low fluence (approx. 1E16) data is used due to lack of baseline data from the original specimen series.

ENCLOSURE 3

Equivalent Margin Analysis

Plant Applicability Verification Form

Quad Cities Station

Unit 2

EQUIVALENT MARGIN ANALYSIS
PLANT APPLICABILITY VERIFICATION FORM
FOR QUAD CITIES 2

BWR/2 PLATE

Surveillance Plate USE:

%Cu = 0.26 SAW

Capsule Fluence = 2.43 E19

Measured % Decrease = 53% (Charpy Curves)

R.G. 1.99 Predicted % Decrease = 49% (R.G. 1.99, Figure 2)

Limiting Beltline Plate USE:

%Cu = 0.30

32 EFPY Fluence = 3.4E17

R.G. 1.99 Predicted % Decrease = 21% (R.G. 1.99, Figure 2)

Adjusted % Decrease = 27% (R.G. 1.99, Position 2.2)

27 % ≤ 26%, so vessel plates are bounded by equivalent margin analysis

EQUIVALENT MARGIN ANALYSIS
PLANT APPLICABILITY VERIFICATION FORM
FOR QUAD CITIES 2

BWR/2 PLATE

Surveillance Plate USE:

%Cu = 0.26 SAW

Capsule Fluence = 9.0 E 18

Measured % Decrease = 45% (Charpy Curves)

R.G. 1.99 Predicted % Decrease = 39% (R.G. 1.99, Figure 2)

Limiting Beltline Plate USE:

%Cu = 0.30

32 EFPY Fluence = 3.4E17

R.G. 1.99 Predicted % Decrease = 21% (R.G. 1.99, Figure 2)

Adjusted % Decrease = 27% (R.G. 1.99, Position 2.2)

27 % ≤ 26%, so vessel plates are bounded by equivalent margin analysis