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August 1, 1980

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Mr. Paul O'Connor, Project Manager
Operating Reactors - Branch 5
U.S. Nuclear Regulatory Commission
Washington D.C. 20555

Subject: Dresden 2 Reactor-Turbine Building
Design Parameter Verification
NRC Docket 50-237

Reference: a) Robert F. Janecek letter of March 4, 1980
to D.L. Ziemann

Dear Mr. O'Connor:

In accordance with reference (a) Commonwealth Edison has reviewed the structural parameters (i.e. axial areas, shear areas, moments of inertia, and masses) used in the 1965 Blume seismic analyses of the reactor-turbine building complex at the Dresden 2 Nuclear Power Plant. Tables 1 through 3 compare the structural parameters calculated using as-built drawings and current procedures with the same parameters calculated and used in the 1965 analyses. These tables fulfill Commonwealth Edison's committment of reference (a).

Commonwealth Edison has reviewed the impact of using the new set of structural parameters (those calculated using as-built drawings and current procedures) on the seismic responses of the complex. In general, the responses are equal to or less than those presented in the report of the Senior Seismic Review Team (SSRT). The review concluded the new set of structural parameters reported in Tables 1 thru 3, if substituted in the dynamic model of the reactor-turbine building complex used by the SSRT in their evaluation of Dresden 2, would show these structures and equipment to contain, in general, even higher margins of safety than those given in the SSRT report.

If you have any questions concerning this matter please contact this office.

One (1) signed original and thirty-nine (39) copies of this transmittal are provided for your use.

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Very truly yours,

Robert F. Janecek

Robert F. Janecek
Nuclear Licensing Administrator
Boiling Water Reactors

NPS:mnh
5463A
Attachment

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TABLE 1

COMPARISON OF MASS DESIGN PARAMETERS

Structure	Elevation (ft-in.)	Weight (kip)	
		1980 Value	1965 Value
Reactor Building	659-3	1,676	1,466
	639-0	890	890
	626-0	329	329
	613-0	33,119	40,974
	589-0	32,480	30,352
	570-0	38,757	34,014
	545-6	34,525	34,282
	517-6	64,786	94,592
Turbine Building	622-6	3,577	2,774
	601-0	332	260
	580-11½	382	314
	561-6	71,673	98,243

TABLE 2

COMPARISON OF STIFFNESS DESIGN PARAMETERS, REACTOR BUILDING

Elevation (ft-in.)	Axial Area, N-S (ft^2)		Axial Area, E-W (ft^2)		Shear Area, N-S (ft^2)		Shear Area, E-W (ft^2)		Moment of Inertia @ N-S (ft^4)		Moment of Inertia @ E-W (ft^4)	
	1980 Value	1965 Value	1980 Value	1965 Value	1980 Value	1965 Value	1980 Value	1965 Value	1980 Value	1965 Value	1980 Value	1965 Value
659-3 to 639-0	--	--	--	--	3.0	3.0	3.9	3.9	10^7*	10^7*	10^7*	10^7*
639-0 to 626-0	--	--	--	--	4.0	4.0	4.8	4.8	10^7*	10^7*	10^7*	10^7*
626-0 to 613-0	--	--	--	--	4.5	4.5	7.2	7.2	10^7*	10^7*	10^7*	10^7*
613-0 to 589-0	5,640	5,570	5,640	5,580	1,915	3,900	3,100	3,900	53,900,000	43,476,500	6,160,000	5,319,600
589-0 to 570-0	5,900	5,820	5,900	5,810	2,359	4,050	2,939	4,050	58,340,000	57,416,100	6,608,900	6,839,700
570-0 to 545-6	4,480	5,550	4,480	5,540	1,751	3,880	2,416	3,880	35,700,000	39,944,000	6,858,900	7,506,000
545-6 to 517-6	4,900	4,940	4,900	4,930	1,997	3,450	2,570	3,450	39,500,000	32,247,000	7,917,000	7,157,600
517-6 to 472-6	8,480	8,820	8,480	8,820	4,159	4,630	4,151	4,630	63,206,000	62,353,000	16,500,000	16,230,100

*Assumed value.

TABLE 3

COMPARISON OF STIFFNESS DESIGN PARAMETERS, TURBINE BUILDING

Elevation (ft-in.)	Axial Area, N-S (ft^2)		Axial Area, E-W (ft^2)		Shear Area, N-S (ft^2)		Shear Area, E-W (ft^2)		Moment of Inertia @ N-S (ft^4)		Moment of Inertia @ E-W (ft^4)	
	1980 Value	1965 Value	1980 Value	1965 Value	1980 Value	1965 Value	1980 Value	1965 Value	1980 Value	1965 Value	1980 Value	1965 Value
622-6 to 601-0	--	--	--	--	10^{7*}	10^{7*}	8	8	10^{7*}	10^{7*}	128	128
601-0 to 580-11½	--	--	--	--	10^{7*}	10^{7*}	12.8	12.8	10^{7*}	10^{7*}	128	128
580-11½ to 561-6	--	--	--	--	10^{7*}	10^{7*}	13.8	13.8	10^{7*}	10^{7*}	128	128
561-6 to 513-6	6,622	628	6,622	1,980	2,314	1,037.4	2,711	329.7	170,780,000	77,000	20,100,000	858,700

*Assumed value.