



Commonwealth Edison Company

72 WEST ADAMS STREET * CHICAGO, ILLINOIS 60690

September 16, 1965

In the Matter of)
 the Application of) AEC Docket
 Commonwealth Edison Company) 50-237

U. S. ATOMIC ENERGY COMM.
 REGULATORY
 MAIL SECTION

1965 SEP 16 PM 3 49

RECEIVED

Dr. R. L. Doan, Director
 Division of Reactor Licensing
 U. S. Atomic Energy Commission
 Washington, D. C.

Dear Dr. Doan:

Amendment No. 4, dated September 16, 1965, to the Plant Design and Analysis Report previously filed in support of the application of Commonwealth Edison Company for a construction permit and operating license for Dresden Unit 2 is submitted herewith.

See Reports File

Amendment No. 4 consists of the answers to certain questions set forth in your letter addressed to me dated September 3, 1965. As soon as practicable we propose to incorporate the substance of Amendment No. 4 and Amendments No. 2 and 3 as well in the Plant Design and Analysis Report. Until such time as this is accomplished, Amendments No. 2, 3 and 4 should be considered as superseding any inconsistent provisions in the original report. For your convenience, the design changes in Unit 2 reported in Amendments No. 2, 3 and 4 and not yet embodied in the report are as follows:

1. Increase in design pressure of the primary containment suppression pool from 35 psig to 62 psig. See Amendment No. 2, page II-4-1.
2. Substitution of a second core spray system for the core reflooding system. See Amendment No. 2, page II-4-2.
3. Changes in the containment cooling systems increasing flow rates. See Amendment No. 2, page II-4-2.
4. Provision to inert the atmosphere in the primary containment. See Amendment No. 2, page II-4-1, II-4-4.

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5. Changes in electric power supply for auxiliary systems. See Amendment No. 2, page II-17-1 to II-17-3.
6. Increase in number of TIP assemblies from four to five. See Amendment No. 2, page II-13-1.

As reported in Amendment No. 4, an additional design change to provide a redundant means for controlling potential leakage from the TIP system is currently under consideration.

A request for allocation to Unit 2 of quantities of U-235 for 1967 and subsequent years is also enclosed.

Very truly yours,

COMMONWEALTH EDISON COMPANY

By Murray Joslin
Murray Joslin
Vice-President

Enc.

Subscribed and sworn to
before me this 16th day
of September, 1965.

P. J. Johnston
Notary Public

DRESDEN UNIT 2 FUEL ALLOCATION

Assumptions

Thermal power, MW	2,255
Uranium content of core load, lb.	314,430
First core enrichment, w/o U-235	2.00
Reload enrichment, w/o U-235	2.36

Scrap

3% not recoverable	
7% recoverable	
Lead time prior to fuel load, reloads	1 year
Return schedule:	
Scrap: 1 year after withdrawal	
Separation products: 1 year after discharge	

Uranium and Plutonium Balances

(All data are weights in Kg)

Year	Withdrawals from AEC U-235	Returns to AEC			Net Yearly Transfers U-235	Cumulative Requirements U-235
		Scrap U-235	U-235	Reprocessed Fuel Fissile Pu		
1967	3133.7	0	0	0	3133.7	3133.7
1968	0	219.4	0	0	-219.4	2914.3
1969	0	0	0	0	0	2914.3
1970	0	0	0	0	0	2914.3
1971	1016.4	0	0	0	1016.4	3930.7
1972	1016.4	71.1	0	0	945.3	4876.0
1973	372.8	71.1	357.1	163.6	-55.4	4820.6
1974	832.5	26.1	386.1	239.7	420.3	5240.9
1975	643.5	58.3	59.7	49.8	525.5	5766.4
1976	643.5	45.0	185.7	91.4	412.8	6179.2
1977	740.6	45.0	116.1	80.9	579.5	6758.7
1978	648.6	51.8	68.1	32.7	528.7	7287.4
1979	556.7	45.4	195.6	119.0	315.7	7603.1
1980	648.6	39.0	220.8	137.2	388.8	7991.9
1981	648.6	45.4	174.8	121.9	428.4	8420.3

NOTE: Future years have essentially the same throughout as 1981.