

UNITED STATES OF AMERICA

ATOMIC ENERGY COMMISSION

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In the Matter of  
COMMONWEALTH EDISON COMPANY

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Docket No. 50-237

On Application for License

(Journal)

TESTIMONY OF CHARLES A. LOVEJOY  
OFFICE OF THE CONTROLLER, AEC

My name is Charles A. Lovejoy. I live at 9205 Wadsworth Drive, Bethesda, Maryland.

I am a graduate of Benjamin Franklin University with a MCS Degree in Accounting.

From 1933 to 1941 I filled a variety of accounting and auditing positions with the U. S. Government. I was Controller of the United Services Life Insurance Company for two years before entering the military service in 1943. After discharge from the Army, I served for seven years in various staff and supervisory positions in the audit and accounting divisions of the Reconstruction Finance Corporation where my duties included financial analyses and review of the operations of borrowing institutions.

Since 1953, I have been a staff accountant in the Office of the Controller of the Atomic Energy Commission. My duties include the preparation of financial analyses of firms applying for special nuclear material, facility licenses, and construction permits. I have appeared as the financial witness for the AEC staff in hearings on the applications for Class 104 licenses held over the past several years.

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I have reviewed the financial information presented in the application and amendments thereto of the Commonwealth Edison Company for a permit to construct a nuclear reactor with an initial rated net electrical output of 715 megawatts (2,300 mwt) to be known as Unit 2 and located at the applicant's Dresden Nuclear Power Station, Grundy County, Illinois. Based on this information, including the 1964 and previous annual reports of the Company, it is my opinion that the Commonwealth Edison Company (Commonwealth) is financially qualified to construct the proposed facility, to assume responsibility for payment of Commission charges for the quantities of special nuclear materials requested, and to undertake and carry out the proposed use of such materials for a reasonable period of time.

My opinion is based upon the following facts and considerations:

1. Based upon Commonwealth's assumptions and schedule of fuel requirements (computed on an annual basis) contained in Amendment No. 4, the Division of Nuclear Materials Management has advised me that the maximum quantity of special nuclear material which the Company may have in its possession at any one time during the life of the requested license could be approximately 5,000 kilograms of U-235 contained in uranium, of which 3,000 kg are enriched to 2 weight percent and 2,000 kg to 2.36 weight percent. Based upon the Commission's base prices currently in effect, the maximum dollar value of this amount is approximately \$37.6 million. The Division of

Reactor Development and Technology has reviewed the fuel requirements for the proposed reactor as estimated by the applicant and states that the assumptions and fuel requirements calculated using these assumptions and data appear to be reasonable. In addition to this material, Commonwealth has in its possession special nuclear material having a dollar value of approximately \$6.5 million for operation of Dresden Unit 1 under Commission Docket 70-243.

2. The applicant estimates that its total direct costs to design, engineer and construct Dresden Unit 2 and related transmission facilities will be \$81,750,000. The Division of Construction has reviewed the details of the estimated direct costs of construction, as contained in the application and has advised me that the estimate of \$81,750,000 is reasonable.

In addition to the direct costs stated above, Commonwealth estimates that the total indirect costs should fall within a range of 12% to 16% of the aggregate direct costs. Using the maximum estimate, total indirect costs allocable to the Unit 2 plant would be \$13,080,000. Further, Commonwealth estimates that the 724 first core fuel assemblies planned for Unit 2 will cost \$13,219,300 (as of the date commercial operations commence), exclusive of the value of the AEC-owned enriched uranium contained therein.

Accordingly, the estimated total costs to Commonwealth for the design and construction of the reactor facility and related transmission

facilities and for fabrication of the first core fuel assemblies will be \$108,049,300 made up as follows:

Direct Costs:

Fixed price, "turn-key" contract for the nuclear generating station, including site preparation and supervision for preoperational testing, fuel loading and plant start-up, to be furnished by General Electric.	\$75,300,000
345 Kv transmission terminal and lines to connect Unit 2 into Commonwealth system.	4,370,000
Engineering, preoperational testing, training, building additions and other project work to be furnished by Commonwealth.	780,000
Allowance for contingencies.	<u>1,300,000</u>
<b>Total estimated direct costs</b>	<b>\$81,750,000</b>

Indirect Costs properly attributable to Unit 2 projects,

comprising costs for engineering and supervision, employee pensions and benefits, payroll taxes, injuries and damages, interest during construction, administrative and legal expense and state taxes. (16% of total direct costs)

<b>Total estimated costs to construct</b>	<b><u>13,080,000</u></b>
	<b>\$94,830,000</b>

Fabrication of First Core:

Fixed price contract with General Electric to fabricate first core	12,709,100
Taxes and AEC use charges not included in fixed price contract	<u>510,200</u>
<b>Total maximum estimated costs to Commonwealth</b>	<b><u>\$108,049,300</u></b>

3. Commonwealth plans to finance Dresden Unit 2 out of funds available for financing its presently scheduled \$720 million construction program for the next five years (including 1965). Such funds will be provided from cash on hand, revenues, short-term bank loans or other interim arrangements as may be appropriate and sales of securities when, as, and if required. The Company is soundly financed and has plentiful resources at its command. As of December 31, 1964, cash, temporary cash investments and net receivables totaled \$89.4 million. Its current Dun and Bradstreet credit rating is the highest (AaA1) and Moody's Investors Service (August 1965) rates the Company's first mortgage bonds (71.3% of the long-term debt) as Aaa (Gilt-Edge) and the Sinking Fund Debentures (28.7% of the long-term debt) as Aa(High).
4. The Company has a very high level of earnings. Operating revenues have steadily increased over the past eight years from \$380.1 million in 1957 to \$564.9 million in 1964 or 48.6%. The net earnings, after taxes, have increased from \$53.3 million to \$100.4 million or 88% over the same period. The volume of electricity sales to ultimate consumers is also steadily rising, increasing from 24.7 billion kwh in 1962 to 28.4 billion kwh in 1964 or 15% over the last 3 years. Commonwealth is thus operating from the excellent position of an increasing volume and an increasing net profit. If present demand continues or increases, it is reasonable to assume that the above level of earnings will continue.

5. Dresden Unit 2 is a part of the presently scheduled \$720 million construction program for Commonwealth's electric utility system for the five year period thru 1969. All but \$12 million of these contemplated expenditures are for generating, transmission and distribution facilities, providing ample evidence that the Company's physical plant is being continually expanded and modernized. In view of the magnitude of Commonwealth's resources, the strength of its financial position, and the high regard held for its bond issues, the financing of this future expansion to meet increased customer demands should place little, if any, financial strain on the Company.
  
6. The pertinent financial ratios computed from the financial data contained in the 1964 Annual Report are satisfactory and indicate a strong financial position. A copy of my financial analysis, reflecting these ratios and other pertinent data is attached as Appendix A. In brief, the ratio of the long-term debt of \$826.1 million to net utility plant of \$1,803.8 million is .46; the proprietary ratio is 44% of the total assets of \$1,943.9 million; the ratio (operating) of operating expenses, including income taxes, of \$444.1 million to operating revenues of \$564.9 million is .79; the rate of earnings on the total investment in the Company is 6.4% and on the stockholders' investment is 11.9%; the number of times the interest on the bonded debt was earned is 4.45 and the Company's retained earnings at December 31, 1964, totaled \$146.4 million.

7. It is my understanding that Commonwealth will obtain property damage insurance sufficient to cover all losses or damage to AEC-owned special nuclear material for which it will be financially responsible and intends to provide and maintain financial protection for public liability as provided by law.

APPENDIX A

**COMMONWEALTH EDISON COMPANY**  
**DOCKET NO. 50-237**  
**FINANCIAL ANALYSIS**

	(dollar in thousands)		
	Calendar Year Ended Dec. 31		
	<u>1964</u>	<u>1963</u>	<u>1962</u>
Long-term debt	\$ 826.1	\$ 833.4	\$ 841.8
Utility plant (net)	1803.8	1756.6	1733.4
Ratio - debt to fixed plant	.458	.474	.486
Stockholders' equity	847.0	805.2	762.2
Total assets	1943.9	1894.3	1837.3
Proprietary ratio	.436	.425	.415
Net income	100.4	92.9	88.5
Stockholders' equity	847.0	805.2	762.2
Rate of earnings on stockholders' investment	11.9%	11.5%	11.6%
Net income before interest	124.4	118.5	111.7
Liabilities and capital	1943.9	1894.3	1837.3
Rate of earnings on total investment	6.4%	6.3%	6.1%
Net income before interest	124.4	118.5	111.7
Interest on long-term debt	27.9	28.2	28.4
No. of times fixed charges earned	4.45	4.20	3.94
Operating expenses (incl. taxes)	444.1	423.5	408.0
Operating revenues	564.9	540.6	520.2
Operating ratio	.79	.78	.78
Retained earnings	146.4	130.4	121.7
Earnings per share of Common	\$2.41	\$2.26	\$2.16
<u>Capitalization at 12/31/64:</u>	<u>Amount</u>	<u>% of Total</u>	
First mortgage bonds	\$ 590.0	35.3%	
Sinking fund debentures	236.1	14.1%	
Long-term debt	826.1	49.4%	
Common stock	847.0	50.6%	
Total	<u>\$1673.1</u>	<u>100.0%</u>	
Moody's Bond Ratings (August 1965):			
First mortgage Debentures	Aaa		
	Aa		
Dun and Bradstreet Credit rating	AaA1		