

DOCKET NO. 50-249

File Copy



Commonwealth Edison Company

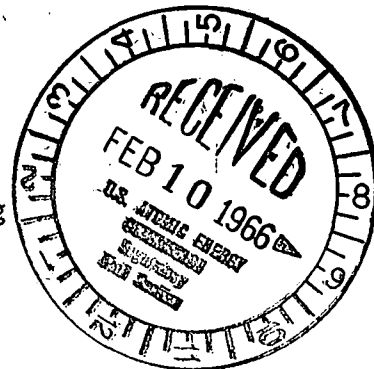
72 WEST ADAMS STREET * CHICAGO 90, ILLINOIS

February 10, 1966

United States
Atomic Energy Commission
Washington, D.C. 20025

Attention: Division of Reactor Licensing

Application for Construction Permit
and Operating License for Dresden Unit 3



In accordance with the provisions of Title 10, Chapter 1, Part 50 of the Code of Federal Regulations, Commonwealth Edison Company hereby makes application for a construction permit and operating license under Section 104(b) of the Atomic Energy Act of 1954, as amended, for its proposed Dresden Unit 3, a utilization facility to be located at Commonwealth Edison Company's Dresden Station near Morris, Illinois.

*See Report
for Vol.
I & II.*

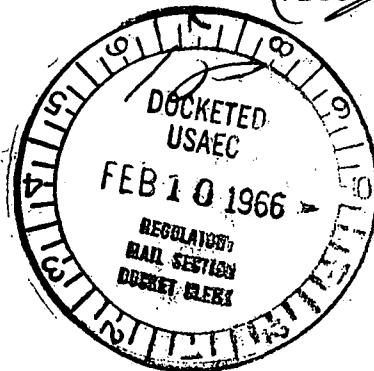
In addition to three signed originals, this filing includes 19 copies of the application, except that the technical information being supplied in accordance with Section 50.34 of 10 CFR Part 50 is supplied in 70 copies of which 48 are being shipped under separate cover. Such technical information includes summaries of site and environmental data required by subparagraph (c) and (f) of Section 50.34. Data supporting such summaries may be found in Volume III of the Dresden Unit 2 Plant Design and Analysis Report, as amended, filed in AEC Docket 50-237 and is incorporated herein by reference pursuant to Section 50.32 of 10 CFR Part 50. Additional copies of such Volume III will be supplied upon request.

COMMONWEALTH EDISON COMPANY

By *Murray J. Jolin*
Vice President

Subscribed and sworn to
before me this 10th day
of February, 1966.

[Signature]
Notary Public



COMMONWEALTH EDISON COMPANY

Application for
Construction Permit and
Operating License
for Dresden Unit 3

General Information

(a) Name of Applicant

Commonwealth Edison Company

(b) Address of Applicant

72 West Adams Street
Chicago, Illinois 60690

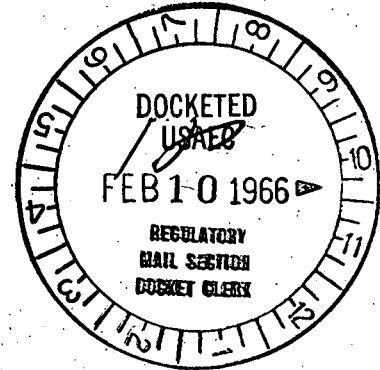
(c) Description of Business of Applicant

Commonwealth Edison Company (hereinafter "Commonwealth") is a public utility which generates, distributes, and sells electricity in Chicago and in a large portion of northern Illinois outside Chicago. It serves about 2,272,700 customers in an area of approximately 11,000 square miles with a population of about 7,100,000.

(d) Corporate Data

Commonwealth is organized and existing under and by virtue of the laws of the State of Illinois, the northern part of which is the location for its principal plants and business. It is not owned, controlled, or dominated by an alien, foreign corporation, or foreign government. It makes this application on its own behalf, and not as agent or representative of another person. The names and addresses of its directors and principal officers, all of whom are American citizens, follows:

| <u>Name</u> | <u>Position</u> | <u>Address</u> |
|-----------------|-----------------|--|
| John A. Barr | Director | 339 East Chicago Avenue Chicago, Illinois 60611 |
| Joseph L. Block | Director | 30 West Monroe Street Chicago, Illinois 60603 |



| <u>Name</u> | <u>Position</u> | <u>Address</u> |
|----------------------|---|--|
| Lowell T. Coggeshall | Director | Rural Route No. 3 Foley, Alabama 36535 |
| Albert B. Dick III | Director | 5700 West Touhy Avenue Chicago, Illinois 60648 |
| Willis Gale | Director | 72 West Adams Street Chicago, Illinois 60690 |
| David M. Kennedy | Director | 231 South LaSalle Street Chicago, Illinois 60690 |
| Brooks McCormick | Director | 401 North Michigan Avenue Chicago, Illinois 60611 |
| Edward Byron Smith | Director | 50 South LaSalle Street Chicago, Illinois 60690 |
| Leroy S. Stephens | Director | Ridgeway Avenue Aurora, Illinois 60507 |
| J. Harris Ward | Director & Chairman | 72 West Adams Street Chicago, Illinois 60690 |
| Morgan F. Murphy | Director & Chairman of the Executive Committee | 72 West Adams Street Chicago, Illinois 60690 |
| Gordon R. Corey | Director & Chairman of the Finance Committee | 72 West Adams Street Chicago, Illinois 60690 |
| Thomas G. Ayers | Director & President | 72 West Adams Street Chicago, Illinois 60690 |
| Murray Joslin | Vice-President | 72 West Adams Street Chicago, Illinois 60690 |
| Nicholas Galitzine | Vice-President | 72 West Adams Street Chicago, Illinois 60690 |
| Laurence E. Pierron | Vice-President | 72 West Adams Street Chicago, Illinois 60690 |
| Hubert H. Nexon | Vice-President | 72 West Adams Street Chicago, Illinois 60690 |

| <u>Name</u> | <u>Position</u> | <u>Address</u> |
|--------------------|-----------------|---|
| Ludwig F. Lischer | Vice-President | 72 West Adams Street Chicago, Illinois 60690 |
| Glen W. Beeman | Vice-President | 72 West Adams Street Chicago, Illinois 60690 |
| William H. Colwell | Secretary | 72 West Adams Street Chicago, Illinois 60690 |
| D. Robert Bower | Treasurer | 72 West Adams Street Chicago, Illinois 60690 |
| Grant H. Wier | Comptroller | 72 West Adams Street Chicago, Illinois 60690 |

(e) 1. Class of license applied for.

Commonwealth requests a class 104(b) construction permit and operating license.

2. Use to which the facility will be put.

Commonwealth will use its proposed Dresden Unit 3 facility for the generation of electrical energy.

3. Period of time for which the license is sought.

Commonwealth seeks a license for forty years from the date of issuance of the construction permit.

4. Other licenses.

Commonwealth herewith applies for appropriate by-product, source, and special nuclear material licenses in connection with the proposed Dresden Unit 3 facility.

5. Allocation of special nuclear material.

Pursuant to 10 CFR 50.60, Commonwealth requests an allocation of special nuclear material for Dresden Unit 3 in the amounts and on the dates set forth in Attachment A.

(f) Financial Qualifications

Commonwealth's financial qualifications have been described in its application as amended for AEC license DPR-2 and approved by the decision issued November 12, 1959 in.

AEC Docket 50-10 and in its application as amended in AEC Docket 50-237. A more current demonstration of its financial qualifications will be supplied in the immediate future in the annual report for the year 1965 and in a Memorandum Re Financial Qualification of Commonwealth Edison Company.

(g) Technical Qualifications

Commonwealth's technical qualifications have been set forth in its application as amended for AEC license DPR-2 and in the evidence submitted in AEC Dockets 50-10 and 50-237. Commonwealth's technical qualifications have been further demonstrated by the successful operation of Dresden Unit 1 for approximately six years. A detailed statement of organization and qualifications of personnel to be involved in the operation of Dresden Unit 3 will be submitted subsequently.

(h) Completion Dates

The earliest completion date for Dresden Unit 3 is estimated to be August 1, 1969, and the latest June 1, 1970.

(i) Restricted Data

Commonwealth agrees that it will not permit any individual to have access to Restricted Data until the Civil Service Commission shall have made an investigation and report to the Commission on the character, associations, and loyalty of such individual, and the Commission shall have determined that permitting such person to have access to Restricted Data will not endanger the common defense and security.

DRESDEN NUCLEAR POWER STATION

Uranium and Plutonium Balances, United States 3(a)

(All data are weights in Kg)

| Fiscal Year | Withdrawals from AEC U-235(b) | Returns to AEC | | | Net Yearly Transfers U-235 | Cumulative Requirements at Fiscal Year-end U-235 | Losses during Fuel - | | Burnup in Reactor of U-235 paid for during Fiscal Year | Financial Responsibility Balance at Fiscal Year-end for U-235 |
|--------------------------|-------------------------------|----------------|------------------------|------------|----------------------------|--|----------------------|--------------------|--|---|
| | | Scrap U-235 | Reprocessed Fuel U-235 | Fissile Pu | | | Fabrication U-235 | Reprocessing U-235 | | |
| 1969 | 3,133.7 (b) | - | - | - | 3,133.7 | 3,133.7 | - | - | - | 3,133.7 |
| 1970 | - | 219.4 | - | - | (219.4) | 2,914.3 | 59.7 | - | - | 2,854.6 |
| 1971 | 1,016.4 | - | - | - | 1,016.4 | 3,930.7 | - | - | 419 | 3,452.0 |
| 1972 | 1,016.4 | 71.1 | - | - | 945.3 | 4,876.0 | 19.6 | - | 458 | 3,919.7 |
| 1973 | 372.8 | 71.1 | - | - | 301.7 | 5,177.7 | 19.6 | - | 455 | 3,746.8 |
| 1974 | 832.5 | 26.1 | 353.0 | 160.6 | 453.4 | 5,631.1 | 7.1 | 4.6 | 452 | 3,736.5 |
| 1975 | 643.5 | 58.3 | 381.6 | 253.3 | 203.6 | 5,834.7 | 15.9 | 5.0 | 451 | 3,468.2 |
| 1976 | 643.5 | 45.0 | 242.6 | 138.6 | 355.9 | 6,190.6 | 12.3 | 3.2 | 424 | 3,384.6 |
| 1977 | 740.6 | 45.0 | 182.1 | 111.5 | 513.5 | 6,704.1 | 12.3 | 2.4 | 417 | 3,466.4 |
| 1978 | 648.6 | 51.8 | 193.3 | 116.7 | 403.5 | 7,107.6 | 14.3 | 2.5 | 417 | 3,436.1 |
| 1979 | 556.7 | 45.4 | 218.2 | 134.7 | 293.1 | 7,400.7 | 12.4 | 2.9 | 417 | 3,296.9 |
| 1980 | 648.6 | 39.0 | 172.9 | 120.0 | 436.7 | 7,837.4 | 10.6 | 2.3 | 417 | 3,303.7 |
| 1981 | 602.6 | 45.4 | 163.0 | 101.4 | 394.2 | 8,231.6 | 12.4 | 2.1 | 383 | 3,300.4 |
| 1982 | 602.6 | 42.2 | 185.6 | 118.4 | 374.8 | 8,606.4 | 11.5 | 2.4 | 372 | 3,289.3 |
| 1983 | 602.6 | 42.2 | 174.6 | 110.0 | 385.8 | 8,992.2 | 11.5 | 2.3 | 372 | 3,289.3 |
| Each year from 1984 thru | | | | | | From 9,378.0 | | | | |
| 2006 | 602.6 | 42.2 | 174.6 | 110.0 | 385.8 | to 17,865.6 | 11.5 | 2.3 | 372 | 3,289.3 |
| 2007 | - | 42.2 | 174.6 | 110.0 | (216.8) | 17,648.8 | 11.5 | 2.3 | 372 | 2,686.7 |
| 2008 | - | - | 174.6 | 110.0 | (174.6) | 17,474.2 | - | 2.3 | 372 | 2,137.8 |

() - Denotes red figure.

Notes:

- (a) Estimated on the basis of 2,255 megawatts thermal, and 715 megawatts net electrical, capability.
- (b) First core's enrichment estimated 2.00% U-235 by weight; all reload cores' enrichments assumed to be 2.36% U-235 by weight.

Schedule of Transfers of Special Nuclear Material from the Commission to Commonwealth Edison and to the Commission from Commonwealth Edison - Dresden 3(a)

| (1) | (2) | (3) | (4) | (5) |
|-----------------------------------|--|---|--|--|
| Date of Transfer (Fiscal Year) | Transfers from AEC to Common- wealth Edison Kgs. U-235(b) | Returns by Commonwealth Edison to AEC Kgs. U-235 | Net Yearly Distribution Kgs. U-235 | Cumulative Distribution Inc. Cumulative Losses-Kgs. U-235 |
| | | <u>Scrap Depleted Fuel</u> | | |
| 1967 | - | - | - | - |
| 1968 | - | - | - | - |
| 1969 | 3,133.7(b) | - | 3,133.7 | 3,133.7 |
| 1970 | - | 219.4 | (219.4) | 2,914.3 |
| 1971 | 1,016.4 | - | 1,016.4 | 3,930.7 |
| 1972 | 1,016.4 | 71.1 | 945.3 | 4,876.0 |
| 1973 | 372.8 | 71.1 | 301.7 | 5,177.7 |
| 1974 | 832.5 | 26.1 | 353.0 | 5,631.1 |
| 1975 | 643.5 | 58.3 | 381.6 | 5,834.7 |
| 1976 | 643.5 | 45.0 | 242.6 | 6,190.6 |
| 1977 | 740.6 | 45.0 | 182.1 | 6,704.1 |
| 1978 | 648.6 | 51.8 | 193.3 | 7,107.6 |
| 1979 | 556.7 | 45.4 | 218.2 | 7,400.7 |
| 1980 | 648.6 | 39.0 | 172.9 | 7,837.4 |
| 1981 | 602.6 | 45.4 | 163.0 | 8,231.6 |
| 1982 | 602.6 | 42.2 | 185.6 | 8,606.4 |
| 1983 | 602.6 | 42.2 | 174.6 | 8,992.2 |
| 1984 | 602.6 | 42.2 | 174.6 | 9,378.0 |
| 1985 | 602.6 | 42.2 | 174.6 | 9,763.8 |
| 1986 | 602.6 | 42.2 | 174.6 | 10,149.6 |
| 1987 | 602.6 | 42.2 | 174.6 | 10,535.4 |
| 1988 | 602.6 | 42.2 | 174.6 | 10,921.2 |
| 1989 | 602.6 | 42.2 | 174.6 | 11,307.0 |
| 1990 | 602.6 | 42.2 | 174.6 | 11,692.8 |
| 1991 | 602.6 | 42.2 | 174.6 | 12,078.6 |
| 1992 | 602.6 | 42.2 | 174.6 | 12,464.4 |
| 1993 | 602.6 | 42.2 | 174.6 | 12,850.2 |
| 1994 | 602.6 | 42.2 | 174.6 | 13,236.0 |
| 1995 | 602.6 | 42.2 | 174.6 | 13,621.8 |
| 1996 | 602.6 | 42.2 | 174.6 | 14,007.6 |
| 1997 | 602.6 | 42.2 | 174.6 | 14,393.4 |
| 1998 | 602.6 | 42.2 | 174.6 | 14,779.2 |
| 1999 | 602.6 | 42.2 | 174.6 | 15,165.0 |
| 2000 | 602.6 | 42.2 | 174.6 | 15,550.8 |
| 2001 | 602.6 | 42.2 | 174.6 | 15,936.6 |
| 2002 | 602.6 | 42.2 | 174.6 | 16,322.4 |
| 2003 | 602.6 | 42.2 | 174.6 | 16,708.2 |
| 2004 | 602.6 | 42.2 | 174.6 | 17,094.0 |
| 2005 | 602.6 | 42.2 | 174.6 | 17,479.8 |
| 2006 | 602.6 | 42.2 | 174.6 | 17,865.6 |
| 2007 | - | 42.2 | (216.8) | 17,648.8 |
| 2008 | - | - | (174.6) | 17,474.2 |

() - Denotes red figure.

- Notes: (a) Estimated on the basis of 2,255 megawatts thermal, and 715 megawatts net electrical, capability.
 (b) First core's enrichment estimated at 2.00% U-235 by weight; all reload cores' enrichments assumed to be 2.36% U-235 by weight.

GENERAL ELECTRIC

CUSTOMERS
ORDER NO.

GE REQ'N. NO./S.N. NO. **SN 618041**
MS 601

D. MC DANIEL
M.S.

SOLD TO

COMMONWEALTH EDISON CO

WASHINGTON, D.C.

SHIPPED TO

ATTN: JOHN RUGHES

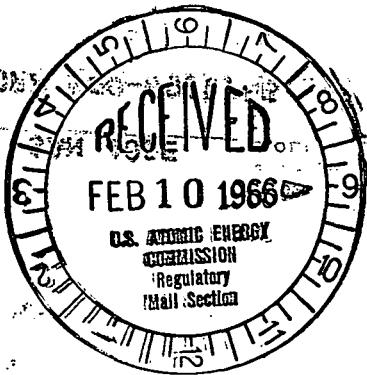
SPECIAL MARKS

DATE SHIPPED **2/9/66** FROM **SAN JOSE** PPD OR COLL. **PPD** F.O.B. POINT OF SHIPMENT

HOW SHIPPED **AIRBORNE FRT CORP SFO-6970766**

| ITEM NUMBER AND QUANTITY | DESCRIPTION |
|--------------------------|-------------|
|--------------------------|-------------|

| | |
|-------|--|
| 24 EA | VOLS I & II, PLANT DESIGN & ANALYSIS REPORT, DRESDEN UNIT 3. <small>REPORT, DRESDEN UNIT 3. VOLS I & II. PLANT DESIGN & ANALYSIS</small> |
|-------|--|



DISPATCHED BY
 2/9/66
 2:44 PM
 REGISTRATION

COMMONWEALTH EDISON CO
AIR

PREPAY **D MC DANIEL**

CH MAYER
D MC DANIEL

MEMO OF SHIPMENT OR PACKING LIST 640-189

| | | | |
|------------|--|--|---|
| COMPLETE | | SHIPMENT OF 24 VOLS IN POSITION OF YOUR ORDER FILLED FROM THIS WORKS. | THE MATERIAL SPECIFIED ABOVE HAS BEEN CAREFULLY COUNTED, CHECKED AND PACKED. NO CLAIMS FOR SHORTAGE OR BREAKAGE SHALL BE CONSIDERED UNLESS MADE WITHIN TEN DAYS AFTER RECEIPT OF GOODS. |
| PART | | | |
| COMPLETING | | XX HS GARDNER | XX |

SAN JOSE, CALIF.