



Commonwealth Edison
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REGULATORY DOCKET FILE COPY

May 11, 1978

Mr. Edson G. Case, Deputy Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Subject: Dresden Station Units 2 and 3
Quad-Cities Station Units 1 and 2
Proposed Amendment to Facility Operating
License DPR-19, DPR-25, DPR-29 and DPR-30
NRC Docket Nos. 50-237/249/254/265

- References (a):** G. A. Abrell letter to D. L. Ziemann
dated April 23, 1976
- (b):** M. S. Turbak letter to D. L. Ziemann
dated February 18, 1977
- (c):** R. L. Bolger letter to D. K. Davis
dated December 12, 1977
- (d):** D. K. Davis letter to C. Reed dated
January 30, 1978
- (e):** Draft - Generic Environmental Impact
Statement on Handling and Storage of
Spent Light Water Power Reactor Fuel,
Executive Summary and Text, NUREG-0404,
Vol. 1, March 1978

Dear Mr. Case:

Pursuant to 10 CFR 50.59, Commonwealth Edison proposes to amend the Dresden Station Units 2 and 3 and Quad-Cities Station Units 1 and 2 facility operating licenses concerning spent fuel transfer and storage between stations.

Reference (a) transmitted our safety analysis for transferring spent fuel. After additional correspondence, Reference (b) was transmitted which severed the inter-station transfer request from the accompanying fuel pool expansion request. Subsequently, Reference (c) was transmitted which

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withdrew our original request for inter-station transfer in order to expedite our other request for spent fuel pool expansion. Reference (d) transmitted NRC approval of the spent fuel pool expansion request.

The proposed change to Dresden Units 2 and 3 will require amending page 2 to both facility operating licenses DPR-19 and DPR-25. The proposed change to Quad-Cities Units 1 and 2 will require amending page 3 to both facility operating licenses DPR-29 and DPR-30.

An analysis was made on the currently licensed spent fuel storage racks at both Dresden and Quad-Cities Stations. Fuel assembly discharge data and dates of discharge are from the most current refueling schedules. In the analysis, fuel was not shipped from Dresden after Quad-Cities lost FCDC (Full Core Discharge Capability).

The results are summarized for Dresden in Table 1 and for Quad-Cities in Table 2 (both attached). The fuel shipments for Dresden must begin before September, 1979 (reload date for Dresden Unit 3) for Dresden to maintain FCDC. The benefit of these shipments is the postponement of loss of FCDC from 1979 to 1981.

Attachment I contains the proposed facility operating license changes.

It is also requested that the Staff make appropriate amendments to the indemnity agreements for Dresden and Quad-Cities Stations extending the indemnity protection to cover events involving fuel irradiated at one site and stored at another site.

This request has received on-site and off-site review and approval.

Pursuant to 10 CFR 170, Commonwealth Edison has determined that this proposed amendment is a combined Class III and Class I Amendment. As such, we have enclosed a fee remittance in the amount of \$8,800.00 for this proposed amendment. Reference (e), specifically Sections 3.4 and 8.1, provided the basis for determining the amendment fee classification.

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Three (3) signed originals and fifty-seven (57) copies of this letter are provided for your use.

Very truly yours,

C. Reed

Cordell Reed
Assistant Vice-President

attachments

SUBSCRIBED and SWORN to
before me this 11th, day
of May, 1978.

Nancy M. Descenzo
Notary Public

TABLE 1

DRESDEN 1, 2 AND 3 SPENT FUEL DISCHARGES AND MIN.
ANNUAL SPENT FUEL REQUIRING SHIPMENT TO MAINTAIN FCDC

<u>Year</u>	<u>Annual Discharge (Assembly)</u>			<u>Shipments*</u>		<u>Cumulative</u>
	<u>Unit 1</u>	<u>Unit 2</u>	<u>Unit 3</u>	<u>Assemblies</u>	<u>MTU**</u>	<u>Total (Assembly)</u>
Prior to 1978						1113
1978	76	0	176	-	-	1365
1979	0	168	176	61	11.468	1648
1980	66	168	0	234	43.992	1648
1981	66	0	176	242	45.496	1648 [†]
1982	66	176	176	-	-	2066

Current rack capacity = 3560

Total assemblies in cores = 1912

Capacity with FCDC = 1648

*Minimum annual spent fuel requiring shipment to maintain FCDC.

**Using a factor of 0.188 MTU/assembly.

[†]Quad-Cities loses FCDC after which no more fuel is shipped

TABLE 2

QUAD-CITIES STATION UNITS 1 AND 2
ANNUAL SPENT FUEL ACCUMULATION

<u>Year</u>	<u>Annual Discharge (Assembly)</u>		<u>Assemblies Received</u>	<u>Cumulative Total</u>
	<u>Unit 1</u>	<u>Unit 2</u>		
Prior to 1978				716
1978	176	180	-	1072
1979	-	196	61	1329
1980	176	-	234	1739
1981	176	164	242	2321*
1982	-	176	-	2497

Current rack capacity = 2920

Total assemblies in core = 724

Capacity with FCDC = 2196

*Loss of FCDC after which no more fuel is received.

ATTACHMENT I

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DPR-19

Provisional Operating License No. DPR-19 is hereby issued to Commonwealth Edison Company (Commonwealth Edison), as follows:

1. This license applies to the Dresden Nuclear Power Station Unit 2, a single cycle, boiling, light water reactor, and electric generating equipment (the facility). The facility is located at the Dresden Nuclear Power Station in Grundy County, Illinois, and is described in the "Safety Analysis Report," as supplemented and amended (Amendment Nos. 7 through 20).
2. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses Commonwealth Edison:
 - A. Pursuant to Section 104b of the Atomic Energy Act of 1954, as amended (the Act), and 10 CFR Part 50, "Licensing of Production and Utilization Facilities," to possess, use, and operate the facility as a utilization facility at the designated location at the Dresden Nuclear Power Station;
 - B. Pursuant to the Act and 10 CFR Part 70, to receive, possess and use at any time special nuclear materials, not including plutonium, as reactor fuel, in accordance with the limitations for storage and amounts required for operation as described in the Final Safety Analysis Report, as supplemented and amended as of September 3, 1976;
 - C. Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess and use at any time any byproduct, source and special nuclear materials as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts required;
 - D. Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess and use in amounts as required any byproduct, source or special nuclear materials without restriction to chemical or physical form, for sample analysis or instrument and equipment calibration or associated with radioactive apparatus or components;
 - E. Pursuant to the Act and 10 CFR Parts 30 and 70, to receive, possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of Dresden Nuclear Power Station, Units Nos. 1, 2, and 3, and Quad-Cities Nuclear Power Station, Unit Nos. 1 and 2.
3. This license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations: 10 CFR Part 20, Section 30.34 of 10 CFR Part 30, Section 40.41 of 10 CFR Part 40, Sections 50.54 and 50.59 of 10 CFR Part 50, and Section 70.32 of 10 CFR Part 70; and is subject to the additional conditions specified below:
 - A. Maximum Power Level
Commonwealth Edison is authorized to operate the facility at steady state power levels not in excess of 2527 megawatts (thermal).

- e. The applicant is technically and financially qualified to engage in the activities authorized by this operating license⁹ in accordance with the rules and regulations of the Commission;
- f. The applicant has furnished proof of financial protection to satisfy the requirements of 10 CFR Part 140;
- g. The issuance of this license will not be inimical to the common defense and security or to the health and safety of the public;

Facility Operating License No. DPR-25 is hereby issued to Commonwealth Edison Company (Commonwealth Edison), as follows:

1. This license applies to the Dresden Nuclear Power Station Unit 3, a single cycle, boiling, light water reactor, and electric generating equipment (the facility). The facility is located at the Dresden Nuclear Power Station in Grundy County, Illinois, and is described in the "Safety Analysis Report," as supplemented and amended (Amendment Nos. 8 through 24).
2. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses Commonwealth Edison:
 - A. Pursuant to Section 104b of the Act and 10 CFR Part 50, "Licensing of Production and Utilization Facilities," to possess, use, and operate the facility as a utilization facility at the designated location at the Dresden Nuclear Power Station;
 - B. Pursuant to the Act and 10 CFR Part 70, to receive, possess and use at any time special nuclear materials, not including plutonium, as reactor fuel, in accordance with the limitations for storage and amounts required for operation as described in the Final Safety Analysis Report, as supplemented and amended as of September 3, 1976;
 - C. Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess and use at any time any byproduct, source and special nuclear materials as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts required;
 - D. Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess and use in amounts as required any byproduct, source or special nuclear materials without restriction to chemical or physical form, for sample analysis or instrument and equipment calibration or associated with radioactive apparatus or components;
 - E. Pursuant to the Act and 10 CFR Parts 30 and 70, to receive, possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of Dresden Nuclear Power Station, Units Nos. 1, 2, and 3, and Quad-Cities Nuclear Power Station, Unit Nos. 1 and 2.
3. This license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations: 10 CFR

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- A. Pursuant to Section 104b of the Act and 10 CFR Part 50, "Licensing of Production and Utilization Facilities", to possess, use, and operate the facility as a utilization facility at the location designated in the application, in accordance with the procedures and limitations described in the application and in this license;
- B. Pursuant to the Act and 10 CFR Part 70, to receive, possess and use at any time special nuclear materials, not including plutonium, as reactor fuel, in accordance with the limitations for storage and amounts required for operation as described in the Final Safety Analysis Report, as supplemented and amended;
- C. Pursuant to the Act and 10 CFR Part 70, to receive, possess and use at any time up to 8 kilograms of plutonium for use in connection with operation of the facility;
- D. Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess and use at any time any byproduct, source and special nuclear materials as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts required;
- E. Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess and use in amounts as required any byproduct, source or special nuclear materials without restriction to chemical or physical form, for sample analysis or instrument and equipment calibration or associated with radioactive apparatus or components;
- F. Pursuant to the Act and 10 CFR Parts 30 and 70, to receive, possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of Quad Cities Nuclear Power Station, Unit Nos. 1 and 2, and Dresden Nuclear Power Station, Unit Nos. 1, 2 and 3.

- 3. -

- A. Pursuant to Section 104b of the Act and 10 CFR Part 50, "Licensing of Production and Utilization Facilities", to possess, use, and operate the facility as a utilization facility at the location designated in the application, in accordance with the procedures and limitations described in the application and in this license;
- B. Pursuant to the Act and 10 CFR Part 70, to receive, possess and use at any time special nuclear materials, not including plutonium, as reactor fuel, in accordance with the limitations for storage and amounts required for operation as described in the Final Safety Analysis Report, as supplemented and amended;
- C. Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess and use at any time any byproduct, source and special nuclear materials as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts required;
- D. Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess and use in amounts as required any byproduct, source or special nuclear materials without restriction to chemical or physical form, for sample analysis or instrument and equipment calibration or associated with radioactive apparatus or components;
- E. Pursuant to the Act and 10 CFR Parts 30 and 70, to receive, possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of Quad Cities Nuclear Power Station, Unit Nos. 1 and 2; and Dresden Nuclear Power Station Unit Nos. 1, 2 and 3.