



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

COMMONWEALTH EDISON COMPANY

DOCKET NO. STN 50-457

BRAIDWOOD STATION, UNIT 2

FACILITY OPERATING LICENSE

License No. NPF-77

1. The Nuclear Regulatory Commission (the Commission or the NRC) has found that:
  - A. The application for a license filed by Commonwealth Edison Company (the licensee) complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I, and all required notifications to other agencies or bodies have been duly made;
  - B. Construction of Braidwood Station, Unit 2 (the facility) has been completed in conformity with Construction Permit No. CPPR-133 and the application, as amended, the provisions of the Act and the regulations of the Commission;
  - C. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the regulations of the Commission (except as exempted from compliance in Section 2.D. below);
  - D. There is reasonable assurance: (i) that the activities authorized by this operating license can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I (except as exempted from compliance in Section 2.D. below);
  - E. Commonwealth Edison Company is technically qualified to engage in the activities authorized by this license in accordance with the Commission's regulations set forth in 10 CFR Chapter I;
  - F. Commonwealth Edison Company has satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements," of the Commission's regulations;

- 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;
  - H. After weighing the environmental, economic, technical, and other benefits of the facility against environmental and other costs and considering available alternatives, the issuance of Facility Operating License NPF-77, subject to the conditions for protection of the environment set forth in the Environmental Protection Plan attached as Appendix B to License No. NPF-72 issued July 2, 1987, is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied; and
  - I. The receipt, possession, and use of source, byproduct and special nuclear material as authorized by this license will be in accordance with the Commission's regulations in 10 CFR Parts 30, 40 and 70.
2. Based on the foregoing findings regarding this facility, the Partial-Initial Decisions issued May 13 and 19, 1987, as amended on May 22, 1987, by the Atomic Safety and Licensing Board in regard to this facility and pursuant to approval by the Nuclear Regulatory Commission at a meeting on June 30, 1987, Facility Operating License No. NPF-77, which supersedes Facility Operating License No. NPF-75 issued on December 18, 1987, is hereby issued to Commonwealth Edison Company (the licensee) to read as follows:
- A. This license applies to Braidwood Station, Unit 2, a pressurized water reactor, and associated equipment (the facility) owned by Commonwealth Edison Company. The facility is located in north-eastern Illinois, 3 miles southwest of the Kankakee River, 20 miles south-southwest of the town of Joliet, and 60 miles southwest of Chicago, Illinois. The facility is within Reed Township, Will County, Illinois and is described in the Byron/Braidwood Stations' Final Safety Analysis Report, as supplemented and amended, and in the Environmental Report, as supplemented and amended.
  - B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses:
    - (1) Commonwealth Edison Company (CECo), pursuant to Section 103 of the Act and 10 CFR Part 50, to possess, use and operate the facility at the above designated location in Will County, Illinois, in accordance with the procedures and limitations set forth in this license;
    - (2) CECo, pursuant to the Act and 10 CFR Part 70, to receive, possess and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;
    - (3) CECo, 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 material as sealed neutron

sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;

- (4) CECO, 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 material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
  - (5) CECO, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.
- C. This license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

The licensee is authorized to operate the facility at reactor core power levels not in excess of 3411 megawatts thermal (100 percent rated power) in accordance with the conditions specified herein and other items identified in Attachment 1 to this license. The items identified in Attachment 1 to this license shall be completed as specified. Attachment 1 is hereby incorporated into this license.

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, both of which were attached to License No. NPF-72, dated July 2, 1987, are hereby incorporated into this license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

(3) Emergency Planning

In the event that the NRC finds that the lack of progress in completion of the procedures in the Federal Emergency Management Agency's final rule, 44 CFR Part 350, is an indication that a major substantive problem exists in achieving or maintaining an adequate state of emergency preparedness, the provisions of 10 CFR Section 50.54(s)(2) will apply.

(4) Initial Startup Test Program

Any changes to the Initial Test Program described in Section 14 of the FSAR made in accordance with the provisions of 10 CFR 50.59 shall be reported in accordance with 50.59(b) within one month of such change.

- D. The facility requires an exemption from the requirements of Appendix J to 10 CFR Part 50, Paragraph III.D.2(b)(11), the testing of containment air locks at times when containment integrity is not required (SER Section 6.2.6). This exemption is authorized by law, will not present an undue risk to the public health and safety, and is consistent with the common defense and security. The staff's environmental assessment was published on May 19, 1988 (53 FR 17995). This exemption was granted in the low power license and is continued for the full power license. The special circumstances regarding this exemption are identified in the referenced section of the Safety Evaluation Report and the supplements thereto. This exemption is granted pursuant to 10 CFR 50.12. With this exemption, the facility will operate, to the extent authorized herein, in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission.

An exemption was previously granted pursuant to 10 CFR 70.24. The exemption was granted with NRC materials license No. SNM-1938, issued October 8, 1985, and relieved the licensee from the requirement of having a criticality alarm system. Therefore, the licensee is exempted from the criticality alarm system provision of 10 CFR 70.24 so far as this section applies to the storage of fuel assemblies held under this license.

The facility requires a temporary exemption from the requirements of 10 CFR 50.49(f) and 50.49(j).

Title 10 of the Code of Federal Regulations (10 CFR) Part 50.49(a) states:

Each holder of or each applicant for a license to operate a nuclear power plant shall establish a program for qualifying the electric equipment defined in paragraph (b) in this section.

Section 50.49(f) of 10 CFR 50 states:

Each item of electric equipment important to safety must be qualified by one of the following methods:

1. Testing an identical item of equipment under identical conditions or under similar conditions with a supporting analysis to show that the equipment to be qualified is acceptable.
2. Testing a similar item of equipment with a supporting analysis to show that the equipment to be qualified is acceptable.



3. Experience with identical or similar equipment under similar conditions with a supporting analysis to show that the equipment to be qualified is acceptable.
4. Analysis in combination with partial type test data that supports the analytical assumptions and conclusions.

Section 50.49(j) of 10 CFR 50 states:

A record of qualification, including documentation specified in paragraph (d) of this section, must be maintained in an auditable form for the entire period during which the covered item is installed in the nuclear power plant or is stored for future use to permit verification that each item of electric equipment important to safety covered by this section:

- (1) Is qualified for its application; and
- (2) Meets its specified performance requirements when it is subjected to the conditions predicted to be present when it must perform its safety function up to the end of its qualified life.

The exemption is required until startup following the Braidwood Unit 2 surveillance outage scheduled in January 1989 prior to which time the unqualified Bunker Ramo containment penetration assemblies in question will have been qualified or replaced with ones which have been previously demonstrated to be qualified per the licensing criteria applicable to the facility.

This exemption is hereby granted and included as part of this license. A discussion and evaluation of this exemption is contained in Section 3.11 of the Safety Evaluation Report Supplement No. 6 (SSER 6). This exemption is authorized by law, will not present an undue risk to public health and safety, and is consistent with the common defense and security. The NRC staff reviewed the licensee's description of the special circumstances relative to this exemption request and determined that special circumstances do exist as required by 10 CFR 50.12. The staff's environmental assessment was published on May 19, 1988 (53 FR 17995).

- E. The licensee shall implement and maintain in effect all provisions of the approved fire protection program as described in the Final Safety Analysis Report, as supplemented and amended, and as approved in the SER dated November 1983 and its supplements, subject to the following provision:

The licensee may make changes to the approved fire protection program without prior approval of the Commission, only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

- F. The licensee shall fully implement and maintain in effect all provisions of the physical security, guard training and qualification, and safeguards contingency plans previously approved by the Commission and all amendments and revisions to such plans made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The plans, which contain Safeguards Information protected under 10 CFR 73.21, are entitled: "Braidwood Station Physical Security Plan, Security Personnel Training and Qualification Plan, and Safeguards Contingency Plan"\* with revisions submitted through May 27, 1986.
- G. Except as otherwise provided in the Technical Specifications or Environmental Protection Plan, the licensee shall report any violations of the requirements contained in Section 2.C of this license in the following manner: initial notification shall be made within 24 hours to the NRC Operations Center via the Emergency Notification System with written followup within thirty days in accordance with the procedures described in 10 CFR 50.73(b), (c), and (e).
- H. The licensee shall have and maintain financial protection of such type and in such amounts as the Commission shall require in accordance with Section 170 of the Atomic Energy Act of 1954, as amended, to cover public liability claims.
- I. This license is effective as of the date of issuance and shall expire at midnight on December 18, 2027.

FOR THE NUCLEAR REGULATORY COMMISSION

James H. Sniezek, Deputy Director  
Office of Nuclear Reactor Regulation

Date of Issuance: May 20, 1988

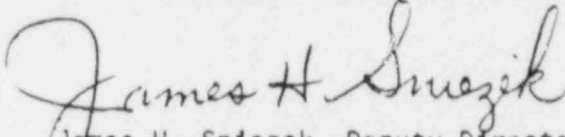
\*The Security Personnel Training and Qualification Plan and the Safeguards Contingency Plan are Appendices to the Security Plan. As requested by CECo letter dated April 22, 1983, Revision 6 is to be considered "the initial formal submittal."

\*See Previous Concurrence

PDIII-2 *SSands/ww 05/20/88	PDIII-2 *LLuther 05/20/88	PTSB *WLambe 05/20/88	PTSB *IDinitz 05/20/88	OGC *EChan 05/20/88	OGC *EReis 05/20/88
ECEB McCracken 5/20/88	EMTB *CYCheng 05/20/88	PDIII D. Miller 5/20/88	AD-DBS G. Holman 5/20/88	D. D. B. P. DC Ditchfield 5/20/88	ADM F. Miraglia 5/20/88
					J. Sniezek 5/20/88

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