



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

TOLEDO EDISON COMPANY  
CENTERIOR SERVICE COMPANY

AND

THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

DOCKET NO. 50-346

DAVIS-BESSE NUCLEAR POWER STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

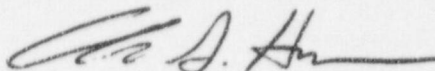
Amendment No. 228  
License No. NPF-3

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by the Toledo Edison Company, Centerior Service Company, and The Cleveland Electric Illuminating Company (the licensees) dated June 29, 1998, as supplemented by submittals dated July 14, October 26, and November 30, 1998, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformance with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment 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;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

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2. Accordingly, Facility Operating License No. NPF-3 is hereby amended by changes to the title and to paragraphs 1.A and associated footnote, 1.E, 2, 2.B(1) and associated footnote, 2.B(2), 2.B(3), 2.B(4), 2.B(5), 2.B(6), 2.C(1), 2.C(2), 2.C(3)(a), 2.C(3)(d), 2.C(4), 2.C(5), 2.C(6), 2.D, 2.E associated footnote, 2.F(1) and 2.F(2), as indicated in the attachment to this license amendment and the enclosed safety evaluation.
3. This license amendment is effective as of January 1, 1999.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION



Allen G. Hansen, Project Manager  
Project Directorate III-2  
Division of Reactor Projects III/IV  
Office of Nuclear Reactor Regulation

Attachment: Changes to the License

Date of issuance: December 21, 1998

ATTACHMENT TO LICENSE AMENDMENT NO. 228

FACILITY OPERATING LICENSE NO. NPF-3

DOCKET NO. 50-346

Replace the following pages of the license with the attached pages. The revised pages are identified by amendment number and contain vertical lines indicating the areas of change. Pages 8 through 12 contain no changes effected by this amendment but have been reformatted for consistency with the amended pages.

Remove

Insert

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

FIRSTENERGY NUCLEAR OPERATING COMPANY

THE TOLEDO EDISON COMPANY

AND

THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

DOCKET NO. 50-346

DAVIS-BESSE NUCLEAR POWER STATION, UNIT NO. 1

FACILITY OPERATING LICENSE

License No. NPF-3

1. The Nuclear Regulatory Commission (the Commission) having found that:
  - A. The application for license filed by the Toledo Edison Company and the Cleveland Electric Illuminating Company (the licensees\*) complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I and all required notifications to other agencies or bodies have been duly made;
  - B. Construction of the Davis-Besse Nuclear Power Station, Unit No. 1 (the facility) has been substantially completed in conformity with Construction Permit No. CPPR-80 and the application, as amended, the provisions of the Act and the rules and regulations of the Commission;
  - C. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission;

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\* The Toledo Edison Company and the Cleveland Electric Illuminating Company (hereinafter jointly referred to as "the Owners"), both of which are wholly-owned subsidiaries of FirstEnergy Corporation, were the original licensees. Centerior Service Company was added as a licensee by Amendment No. 152. Amendment No. 228 replaced the Centerior Service Company with the FirstEnergy Nuclear Operating Company (FENOC), as a licensee. FENOC, also a wholly-owned subsidiary of FirstEnergy Corporation, has exclusive responsibility and control over the physical construction, operation, and maintenance of the facility.



- 1.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 rules and regulations of the Commission;
  - E. The FirstEnergy Nuclear Operating Company is technically qualified and the licensees are financially qualified to engage in the activities authorized by this operating license in accordance with the rules and regulations of the Commission;
  - F. The licensees have 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 operating 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 No. NPF-3 subject to the conditions for protection of the environment set forth herein is in accordance with 10 CFR Part 51 (formerly Appendix D to 10 CFR Part 50), 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 Part 30, 40, and 70, including 10 CFR Sections 30.33, 40.32, 70.23, and 70.31.
2. Facility Operating License No. NPF-3 is hereby issued to the FirstEnergy Nuclear Operating Company (FENOC), the Toledo Edison Company, and the Cleveland Electric Illuminating Company to read as follows:
    - A. This license applies to the Davis-Besse Nuclear Power Station, Unit No. 1, a pressurized water nuclear reactor and associated equipment (the facility), owned by the Toledo Edison Company and the Cleveland Electric Illuminating Company. The facility is located on the south-western shore of Lake Erie in Ottawa County, Ohio, approximately 21 miles east of Toledo, Ohio, and is described in the "Final Safety Analysis Report" as supplemented and amended (Amendments 14 through 44) and the Environmental Report as supplemented and amended (Supplements 1 through 2).

2.B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses:

- (1) FENOC, pursuant to Section 103 of the Act and 10 CFR Part 50, "Licensing of Production and Utilization Facilities," to possess, use, and operate the facility;
- (2) The Toledo Edison Company and the Cleveland Electric Illuminating Company, to possess the facility at the designated location in Ottawa County, Ohio in accordance with the procedures and limitations set forth in this license;
- (3) FENOC, 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;
- (4) FENOC, 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;
- (5) FENOC, 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
- (6) FENOC, pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.

- 2.C. This license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Chapter I: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Sections 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70; 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

FENOC is authorized to operate the facility at steady state reactor core power levels not in excess of 2772 megawatts (thermal). Prior to attaining the power level, Toledo Edison Company shall comply with the conditions identified in Paragraph (3)(o) below and complete the preoperational tests, startup tests and other items identified in Attachment 2 to this license in the sequence specified. Attachment 2 is an integral part of this license.

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 228, are hereby incorporated in the license. FENOC shall operate the facility in accordance with the Technical Specifications.

(3) Additional Conditions

The matters specified in the following conditions shall be completed to the satisfaction of the Commission within the stated time periods following the issuance of the license or within the operational restrictions indicated. The removal of these conditions shall be made by an amendment to the license supported by a favorable evaluation by the Commission:

- (a) FENOC shall not operate the reactor in operational Modes 1 and 2 with less than three reactor coolant pumps in operation.
- (b) Deleted per Amendment 6
- (c) Deleted per Amendment 5



- 2.C(3)(d) Prior to operation beyond 21 Effective Full Power Years, FENOC shall provide to the NRC a reanalysis and proposed modifications, as necessary, to ensure continued means of protection against low temperature reactor coolant system overpressure events.
- (e) Deleted per Amendment 33
- (f) Deleted per Amendment 33
- (g) Deleted per Amendment 33
- (h) Deleted per Amendment 24
- (i) Deleted per Amendment 11
- (j) Revised per Amendment 3  
Deleted per Amendment 28
- (k) Within 60 days of startup following the first (1st) regularly scheduled refueling outage, Toledo Edison Company shall complete tests and obtain test results as required by the Commission to verify that faults on non-Class IE circuits would not propagate to the Class IE circuits in the Reactor Protection System and the Engineered Safety Features Actuation System.
- (l) Revised per Amendment 7  
Deleted per Amendment 15
- (m) Deleted per Amendment 7
- (n) Deleted per Amendment 10
- (o) Deleted per Amendment 2
- (p) Deleted per Amendment 29
- (q) Deleted per Amendment 7
- (r) Deleted per Amendment 30
- (s) Toledo Edison Company shall be exempted from the requirements of Technical Specification 3/4.7.8.1 for the two (2) Americium-Beryllium-Copper startup sources to be installed or already installed for use during the first refueling cycle until such time as the sources are replaced.
- (t) Added per Amendment 83  
Deleted per Amendment 122

2.C(4) Fire Protection

FENOC shall implement and maintain in effect all provisions of the approved Fire Protection Program as described in the Updated Safety Analysis Report and as approved in the SERs dated July 26, 1979, and May 30, 1991, subject to the following provision:

FENOC 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.

- (5) FENOC shall maintain in effect and implement a secondary water chemistry monitoring program to inhibit steam generator tube degradation. The program shall include:

- (a) Identification of a sampling schedule for the critical parameters and control points for these parameters;
- (b) Identification of the procedures used to quantify parameters that are critical to control points;
- (c) Identification of process sampling points;
- (d) Procedure for the recording and management of data;
- (e) Procedures defining corrective actions for off control point chemistry conditions; and
- (f) A procedure identifying the authority responsible for the interpretation of the data, and the sequence and timing of administrative events required to initiate corrective action.

(6) Antitrust Conditions

FENOC shall comply with the antitrust conditions delineated in Condition 2.E of this license as if named therein. FENOC shall not market or broker power or energy from the Davis-Besse Nuclear Power Station, Unit No. 1. The Owners are responsible and accountable for the actions of FENOC to the extent that said actions affect the marketing or brokering of power or energy from the Davis-Besse Nuclear Power Station, Unit No. 1, and in any way, contravene the antitrust license conditions contained in the license.

2.D. FENOC shall fully implement and maintain in effect all provisions of the Commission-approved physical security, guard training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and 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: "Davis-Besse Nuclear Power Station Physical Security Plan," with revisions submitted through January 29, 1988; "Davis-Besse Nuclear Power Station Guard Training and Qualification Plan," with revisions submitted through February 20, 1987; and "Davis-Besse Nuclear Power Station Safeguards Contingency Plan," with revisions submitted through February 20, 1987. Changes made in accordance with 10 CFR 73.55 shall be implemented in accordance with the schedule set forth therein.

E. This license is subject to the following antitrust conditions:

Definitions

Entity shall mean any electric generation and/or distribution system or municipality or cooperative with a statutory right or privilege to engage in either of these functions.

Wheeling shall mean transportation of electricity by a utility over its lines for another utility, including the receipt from and delivery to another system of like amounts but not necessarily the same energy. Federal Power Commission, The 1970 National Power Survey, Part 1, p. I-24-8.

License Conditions Approved By the Atomic Safety and Licensing Appeal Board\*

- (1) Applicants shall not condition the sale or exchange of wholesale power or coordination services upon the condition that any other entity:
  - (a) enter into any agreement or understanding restricting the use of or alienation of such energy or services to any customers or territories;

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\* "Applicants" as used by the Appeal Board refers to the Toledo Edison Company, Cleveland Electric Illuminating Company, Duquesne Light Company, Ohio Edison Company and Pennsylvania Power Company although among the preceding only the Toledo Edison Company and Cleveland Electric Illuminating Company are Licensees for this facility.



- 2.E(1)(b) enter into any agreement or understanding requiring the receiving entity to give up any other power supply alternatives or to deny itself any market opportunities;
- (c) withdraw any petition to intervene or forego participation in any proceeding before the Nuclear Regulatory Commission or refrain from instigating or prosecuting any antitrust action in any other forum.
- (2) Applicants, and each of them, shall offer interconnections upon reasonable terms and conditions at the request of any other electric entity(ies) in the CCCT, such interconnection to be available (with due regard for any necessary and applicable safety procedures) for operation in a closed-switch synchronous operating mode if requested by the interconnecting entity(ies). Ownership of transmission lines and switching stations associated with such interconnection shall remain in the hands of the party funding the interconnection subject, however, to any necessary safety procedures relating to disconnection facilities at the point of power delivery. Such limitations on ownership shall be the least necessary to achieve reasonable safety practices and shall not serve to deprive purchasing entities of a means to effect additional power supply options.
- (3) Applicants shall engage in wheeling for and at the request of other entities in the CCCT:
- (a) of electric energy from delivery points of Applicants to the entity(ies); and,
- (b) of power generated by or available to the other entity, as a result of its ownership or entitlements\* in generating facilities, to delivery points of applicants designated by the other entity.
- (c) The Cleveland Electric Illuminating Company shall file with the FERC, within ten (10) days of the Order of the Director of Nuclear Reactor Regulation dated May 13, 1980, an amendment to its January 27, 1978 Transmission Service Schedule, FERC Docket ER78-194, in accordance with Appendix A to that Order and in conformity with the applicable filing requirements of the Federal Energy Regulatory Commission.

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\* "Entitlement" includes but is not limited to power made available to an entity pursuant to an exchange agreement.

2.E(3)(cont.) Such wheeling services shall be available with respect to any unused capacity on the transmission lines of Applicants, the use of which will not jeopardize Applicants' system. In the event Applicants must reduce wheeling services to other entities due to lack of capacity, such reduction shall not be effected until reductions of at least 5% have been made in transmission capacity allocations to other Applicants in these proceedings and thereafter shall be made in proportion to reductions\* imposed upon other Applicants to this proceeding.

Applicants shall make reasonable provisions for disclosed transmission requirements of other entities in the CCCT in planning future transmission either individually or within the CAPCO grouping. By "disclosed" is meant the giving of reasonable advance notification of future requirements by entities utilizing wheeling services to be made available by Applicants.

- (4) (a) Applicants shall make available membership in CAPCO to any entity in the CCCT with a system capability of 10 MW or greater;
- (b) A group of entities with an aggregate system capability of 10 MW or greater may obtain a single membership in CAPCO on a collective basis.\*\*

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\* The objective of this requirement is to prevent preemption of unused capacity on the lines of one Applicant by other Applicants or by entities the transmitting Applicant deems noncompetitive. Competitive entities are to be allowed opportunity to develop bulk power services options even if this results in reallocation of CAPCO transmission channels. This relief is required in order to avoid prolongation of the effects of Applicants' illegally sustained dominance.

\*\* E.g., Wholesale Customer of Ohio Edison (WCOE).



- 2.E(4)(c) Entities applying for membership in CAPCO pursuant to License Condition 4 shall become members subject to the terms and conditions of the CAPCO Memorandum of Understanding of September 14, 1967, and its implementing agreements, except that new members may elect to participate on an equal percentage of reserve basis rather than a P/N allocation formula for a period of twelve years from date of entrance.\* Following the twelfth year of entrance, new members shall be expected to adhere to such allocation methods as are then employed by CAPCO (subject to equal opportunity for waiver or special consideration granted to original CAPCO members which are then in effect).
- (d) New members joining CAPCO pursuant to this provision of relief shall not be entitled to exercise voting rights until such time as the system capability of the joining member equals or exceeds the system capability of the smallest member of CAPCO which enjoys voting rights.\*\*

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\* The selection of the 12-year period reflects our determination that an adjustment period is necessary since the P/N formula has a recognized effect of discriminating against small systems and forcing them to forego economies of scale in generation in order to avoid carrying excessive levels of reserves. We also found that P/N is not entirely irrational as a method of reserve allocation. We have observed that Applicants themselves provided adjustment periods and waivers to integrate certain Applicants into the CAPCO reserve requirement program. The 12-year period should permit new entrants to avoid initial discrimination but to accommodate and adjust to the CAPCO system over some reasonable period of time. Presumably new entrants will be acquiring ownership shares and entitlements during the 12-year period so that adverse consequences of applying the P/N formula will be mitigated.

\*\* Our objective is to prevent impediments to the operation and development of an areawide power pool through the inability of lesser entities to respond timely or to make necessary planning commitments. While we grant new member entities the opportunity to participate in CAPCO it is not our intent to relieve joining entities of responsibilities and obligations necessary to the successful operation of the pool. For those smaller entities which do not wish to assume the broad range of obligations associated with CAPCO membership we have provided for access to bulk power service options which will further their ability to survive and offer competition in the CCCT.



- 2.E(5) Applicants shall sell maintenance power to requesting entities in the CCCT upon terms and conditions no less favorable than those Applicants make available: (1) to each other either pursuant to the CAPCO agreements or pursuant to bilateral contract; or (2) to non-Applicant entities outside the CCCT.
- (6) Applicants shall sell emergency power to requesting entities in the CCCT upon terms and conditions no less favorable than those Applicants make available: (1) to each other either pursuant to the CAPCO agreements or pursuant to bilateral contract; or (2) to non-Applicant entities outside the CCCT.
- (7) Applicants shall sell economy energy to requesting entities in the CCCT, when available, on terms and conditions no less favorable than those available: (1) to each other either pursuant to the CAPCO agreements or pursuant to bilateral contract; or (2) to non-Applicant entities outside the CCCT.
- (8) Applicants shall share reserves with any interconnected generation entity in the CCCT upon request. The requesting entity shall have the option of sharing reserves on an equal percentage basis or by use of the CAPCO P/N allocation formula or on any other mutually agreeable basis.
- (9) (a) Applicants shall make available to entities in the CCCT access to the Davis-Besse 1, 2 and 3 and the Perry 1 and 2 nuclear units and any other nuclear units for which Applicants or any of them, shall apply for a construction permit or operating license during the next 25 years. Such access, at the option of the requesting entity, shall be on an ownership share, or unit participation or contractual pre-purchase of power basis.\*

Each requesting entity (or collective group of entities) may obtain up to 10% of the capacity of the Davis-Besse and Perry Units and 20% of future units (subject to the 25-year limitation) except that once any entity or entities have contracted for allocations totaling 10% or 20%, respectively, no further participation in any given units need be offered.

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\* Requesting entities' election as to the type of access may be affected by provisions of state law relating to dual ownership of generation facilities by municipalities and investor-owned utilities. Such laws may change during the period of applicability of these conditions. Accordingly, we allow requesting entities to be guided by relevant legal and financial considerations (including Commission regulations on nuclear power plant ownership) in fashioning their requests.

2.E(9)(b) Commitments for the Davis-Besse and Perry Units must be made by requesting entities within two years after this decision becomes final. Commitments for future units must be made within two years after a construction permit application is filed with respect to such a unit (subject to the 25-year limitation) or within two years after the receipt by a requesting entity of detailed written notice of Applicants' plans to construct the unit, whichever is earlier; provided, however, that the time for making the commitment shall not expire until at least three months after the filing of the application for a construction permit. Where an Applicant seeks to operate a nuclear plant with respect to which it did not have an interest at the time of the filing of the application for the construction permit, the time periods for commitments shall be the same except that reference should be to the operating license, not the construction permit.

(10) Applicants shall sell wholesale power to any requesting entity in the CCCT, in amounts needed to meet all or part of such entity's requirements. The choice as to whether the agreement should cover all or part of the entity's requirements should be made by the entity, not the Applicant or Applicants.

(11) These conditions are intended as minimum conditions and do not preclude Applicants from offering additional wholesale power or coordination services to entities within or without the CCCT. However, Applicants shall not deny wholesale power or coordination services required by these conditions to non-Applicant entities in the CCCT based upon prior commitments arrived at in the CAPCO Memorandum of Understanding or implementing agreements. Such denial shall be regarded as inconsistent with the purpose and intent of these conditions.

The above conditions are to be implemented in a manner consistent with the provisions of the Federal Power Act and all rates, charges or practices in connection therewith are to be subject to the approval of regulatory agencies having jurisdiction over them.

2.F. This license is subject to the following additional conditions for the protection of the environment:

- (1) FENOC shall operate Davis-Besse Unit No. 1 within applicable Federal and State air and water quality standards.
- (2) Before engaging in an operational activity not evaluated by the Commission, FENOC will prepare and record an environmental evaluation of such activity. When the evaluation indicates that such activity may result in a significant adverse environmental impact that was not evaluated, or that is significantly greater than that evaluated in the Final Environmental Statement, FENOC shall provide a written evaluation of such activities and obtain prior approval of the Director, Office of Nuclear Reactor Regulation for the activities.