



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

THE TOLEDO EDISON 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. 67  
License No. NPF-3

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by The Toledo Edison Company and The Cleveland Electric Illuminating Company (the licensees) dated February 22, 1983, as revised October 11, 1983, 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 conformity with the application, the provisions of the Act, and the 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 license 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.
2. Accordingly, Facility Operating License No. NPF-3 is hereby amended as indicated below and by changes to the Technical Specifications as indicated in the attachment to this license amendment:

Revise paragraph 2.C.(2) to read as follows:

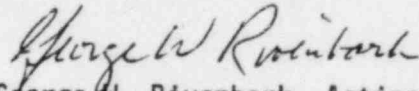
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Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 67, are hereby incorporated in the license. The Toledo Edison Company shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



George W. Rivenbark, Acting Chief  
Operating Reactors Branch #4  
Division of Licensing

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: May 22, 1984

ATTACHMENT TO LICENSE AMENDMENT NO. 67

FACILITY OPERATING LICENSE NO. NPF-3

DOCKET NO. 50-346

Replace the following pages of the Appendix "A" Technical Specifications with the enclosed pages as indicated. The revised pages are identified by Amendment number and contain vertical lines indicating the area of change. The corresponding overleaf pages are also provided to maintain document completeness.

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REACTIVITY CONTROL SYSTEMS

MINIMUM TEMPERATURE FOR CRITICALITY

LIMITING CONDITION FOR OPERATION

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3.1.1.4 The Reactor Coolant System lowest loop temperature ( $T_{avg}$ ) shall be  $\geq 525^{\circ}\text{F}$ .

APPLICABILITY: MODES 1 and 2\*.

ACTION:

With a Reactor Coolant System loop temperature ( $T_{avg}$ )  $< 525^{\circ}\text{F}$ , restore  $T_{avg}$  to within its limit within 15 minutes or be in <sup>at</sup>HOT STANDBY within the next 15 minutes.

SURVEILLANCE REQUIREMENTS

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- 4.1.1.4 The RCS temperature ( $T_{avg}$ ) shall be determined to be  $\geq 525^{\circ}\text{F}$ :
- a. Within 15 minutes prior to achieving reactor criticality, and
  - b. At least once per 30 minutes when the reactor is critical and the Reactor Coolant System  $T_{avg}$  is less than  $530^{\circ}\text{F}$ .

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\*With  $K_{eff} \geq 1.0$ .

## REACTIVITY CONTROL SYSTEMS

### 3/4.1.2 BORATION SYSTEMS

#### FLOW PATHS - SHUTDOWN

#### LIMITING CONDITION FOR OPERATION

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3.1.2.1 At least one of the following boron injection flow paths shall be OPERABLE.

- a. A flow path from the concentrated boric acid storage system via a boric acid pump and a makeup or decay heat removal (DHR) pump to the Reactor Coolant System, if only the boric acid storage system in Specification 3.1.2.8a is OPERABLE, or
- b. A flow path from the borated water storage tank via a makeup or DHP pump to the Reactor Coolant System if only the borated water storage tank in Specification 3.1.2.8b is OPERABLE.

APPLICABILITY: MODES 5 and 6.

#### ACTION:

With none of the above flow paths OPERABLE, suspend all operations involving CORE ALTERATIONS or positive reactivity changes until at least one injection path is restored to OPERABLE status.

#### SURVEILLANCE REQUIREMENTS

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4.1.2.1 At least one of the above required flow paths shall be demonstrated OPERABLE:

- a. At least once per 7 days <sup>(1)</sup> by verifying that the pipe temperature of the heat traced portion of the flow path is  $\geq 105^{\circ}\text{F}$  when a flow path from the concentrated boric acid storage system is used, and
- b. At least once per 31 days by verifying that each valve (manual, power operated or automatic) in the flow path that is not locked, sealed or otherwise secured in position is in its correct position.

(1) If the 7 day verification falls during transfers of makeup water or dilute boron solutions (fluid source concentration of less than 5000 ppmB), the verification period may be extended up to 8 hours after the addition of dilute boron solution has been stopped for a period of at least 8 hours.

## REACTIVITY CONTROLS SYSTEMS

### FLOW PATHS - OPERATING

#### LIMITING CONDITION FOR OPERATION

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3.1.2.2 Each of the following boron injection flow paths shall be OPERABLE:

- a. A flow path from the concentrated boric acid storage system via a boric acid pump and makeup or decay heat removal (DHR) pump to the Reactor Coolant System, and
- b. A flow path from the borated water storage tank via makeup or DHR pump to the Reactor Coolant System.

APPLICABILITY: MODES 1, 2, 3 and 4.

#### ACTION:

- a. With the flow path from the concentrated boric acid storage system inoperable, restore the inoperable flow path to OPERABLE status within 72 hours or be in at least HOT STANDBY and borated to a SHUTDOWN MARGIN equivalent to  $1\% \Delta k/k$  at  $200^{\circ}\text{F}$  within the next 6 hours; restore the flow path to OPERABLE status within the next 7 days or be in COLD SHUTDOWN within the next 30 hours.
- b. With the flow path from the borated water storage tank inoperable, restore the flow path to OPERABLE status within one hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

#### SURVEILLANCE REQUIREMENTS

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4.1.2.2 Each of the above required flow paths shall be demonstrated OPERABLE:

- a. At least once per 7 days <sup>(1)</sup> by verifying that the pipe temperature of the heat traced portion of the flow path from the concentrated boric acid storage system is  $\geq 105^{\circ}\text{F}$ .

(1) If the 7 day verification falls during transfers of makeup water or dilute boron solutions (fluid source concentration of less than 5000 ppmB), the verification period may be extended up to 8 hours after the addition of dilute boron solution has been stopped for a period of at least 8 hours.

REACTIVITY CONTROL SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

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- b. At least once per 31 days by verifying that each valve (manual, power operated or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position.

## REACTIVITY CONTROL SYSTEMS

### BORIC ACID PUMPS - OPERATING

#### LIMITING CONDITION FOR OPERATION

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3.1.2.7 At least one boric acid pump in the boron injection flow path required by Specification 3.1.2.2a shall be OPERABLE and capable of being powered from an OPERABLE essential bus.

APPLICABILITY: MODES 1, 2, 3 and 4.

#### ACTION:

With no boric acid pump OPERABLE, restore at least one boric acid pump to OPERABLE status within 72 hours or be in at least HOT STANDBY and borated to a SHUTDOWN MARGIN equivalent to 1%  $\Delta k/k$  at 200°F within the next 6 hours; restore at least one boric acid pump to OPERABLE status within the next 7 days or be in COLD SHUTDOWN within the next 30 hours.

#### SURVEILLANCE REQUIREMENTS

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4.1.2.7 In addition to the Surveillance Requirements of Specification 4.0.5, at least one boric acid pump shall be demonstrated OPERABLE at least once per 31 days by:

- a. Starting (unless already operating) the pump from the control room.
- b. Verifying that the pump develops at least 93% of the discharge pressure for the applicable flow rate as determined from the manufacturer's Pump Performance Curve at a discharge pressure  $\geq 65$  psig.
- c. Verifying pump operation for at least 15 minutes.
- d. Verifying that the pump is aligned to receive electrical power from an OPERABLE essential bus.



## REACTIVITY CONTROL SYSTEMS

### BORATED WATER SOURCES SHUTDOWN

#### LIMITING CONDITION FOR OPERATION

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3.1.2.8 As a minimum, one of the following borated water sources shall be OPERABLE:

- a. A boric acid addition system with:
  1. A minimum contained borated water volume in accordance with Figure 3.1-1,
  2. Between 7875 and 13,125 ppm of boron, and
  3. A minimum solution temperature of 105°F.
- b. The borated water storage tank (BWST) with:
  1. A minimum contained borated water volume of 70,700 gallons,
  2. A minimum boron concentration of 1800 ppm, and
  3. A minimum solution temperature of 35°F.

APPLICABILITY: MODES 5 and 6.

#### ACTION:

With no borated water sources OPERABLE, suspend all operations involving CORE ALTERATION or positive reactivity changes until at least one borated water source is restored to OPERABLE status.

#### SURVEILLANCE REQUIREMENTS

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4.1.2.8 The above required borated water source shall be demonstrated OPERABLE:

- a. At least once per 7 days by:
  1. Verifying the boron concentration of the water,
  2. Verifying the contained borated water volume of the source, and

REACTIVITY CONTROL SYSTEMS

BORATED WATER SOURCES - OPERATING

LIMITING CONDITION FOR OPERATION

3.1.2.9 Each of the following borated water sources shall be OPERABLE:

- a. The boric acid addition system with:
  1. A minimum contained borated water volume in accordance with Figure 3.1-1.
  2. Between 7875 and 13,125 ppm of boron, and
  3. A minimum solution temperature of 105°F.
- b. The borated water storage tank (BWST) with:
  1. A contained borated water volume of between 482,778 and 550,000 gallons,
  2. Between 1800 and 2200 ppm of boron, and
  3. A minimum solution temperature of 35°F.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

- a. With the boric acid addition system inoperable, restore the storage system to OPERABLE status within 72 hours or be in at least HOT STANDBY and borated to a SHUTDOWN MARGIN equivalent to 1%  $\Delta k/k$  at 200°F within the next 6 hours; restore the boric acid addition system to OPERABLE status within the next 7 days or be in COLD SHUTDOWN within the next 30 hours.
- b. With the borated water storage tank inoperable, restore the tank to OPERABLE status within one hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

REACTIVITY CONTROL SYSTEMS

SURVEILLANCE REQUIREMENTS

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4.1.2.9 Each borated water source shall be demonstrated OPERABLE:

a. At least once per 7 days by:

1. Verifying the boron concentration in each water source,
2. Verifying the contained borated water volume of each water source, and
3. Verifying the boric acid addition system solution temperature.

b. At least once per 24 hours by verifying the BWST temperature when the outside air temperature is  $< 35^{\circ}\text{F}$ .