



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. 40
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 24, 1981, 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 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 as indicated below and by changes to the Technical Specifications as indicated in the attachment to this license amendment:

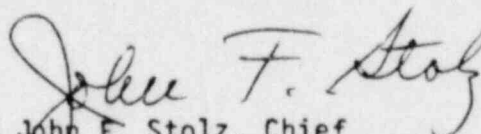
Revise paragraph 2.C.(2) to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 40, 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 the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



John F. Stolz, Chief
Operating Reactors Branch #4
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: June 1, 1981

ATTACHMENT TO LICENSE AMENDMENT NO. 40

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.

Pages

3/4 3-10

3/4 3-20

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INSTRUMENTATION

3/4.3.2 SAFETY SYSTEM INSTRUMENTATION

SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.2.1 The Safety Features Actuation System (SFAS) functional units shown in Table 3.3-3 shall be OPERABLE with their trip setpoints set consistent with the values shown in the Trip Setpoint column of Table 3.3-4 and with RESPONSE TIMES as shown in Table 3.3-5.

APPLICABILITY: As shown in Table 3.3-3.

ACTION:

- a. With a SFAS functional unit trip setpoint less conservative than the value shown in the Allowable Values column of Table 3.3-4, declare the functional unit inoperable and apply the applicable ACTION requirement of Table 3.3-3, until the functional unit is restored to OPERABLE status with the trip setpoint adjusted consistent with the Trip Setpoint value.
- b. With a SFAS functional unit inoperable, take the action shown in Table 3.3-3.

SURVEILLANCE REQUIREMENTS

4.3.2.1.1 Each SFAS functional unit shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL CALIBRATION and CHANNEL FUNCTIONAL TEST during the MODES and at the frequencies shown in Table 4.3-2.

4.3.2.1.2 The logic for the bypasses shall be demonstrated OPERABLE during the at power CHANNEL FUNCTIONAL TEST of functional units affected by bypass operation. The total bypass function shall be demonstrated OPERABLE at least once per 18 months during CHANNEL CALIBRATION testing of each functional unit affected by bypass operation.

4.3.2.1.3 The SAFETY FEATURES RESPONSE TIME of each SFAS function shall be demonstrated to be within the limit at least once per 18 months. Each test shall include at least one functional unit per function such that all functional units are tested at least once every N times 18 months where N is the total number of redundant functional units in a specific SFAS function as shown in the "Total No. of Units" Column of Table 3.3-3.

TABLE 3.3-3

SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF UNITS</u>	<u>UNITS TO TRIP</u>	<u>MINIMUM UNITS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
1. INSTRUMENT STRINGS					
a. Containment Radiation - High	4	2	3	1,2,3,4,6****	9#
b. Containment Pressure - High	4	2	3	1, 2, 3	9#
c. Containment Pressure - High-High	4	2	3	1, 2, 3	9#
d. RCS Pressure - Low	4	2	3	1, 2, 3*	9#
e. RCS Pressure - Low-Low	4	2	3	1, 2, 3**	9#
f. BWST Level - Low-Low	4	2	3	1, 2, 3	9#
2. OUTPUT LOGIC					
a. Incident Level #1: Containment Isolation	2	1	2	1,2,3,4,6****	10
b. Incident Level #2: High Pressure Injection and Starting Diesel Generators	2	1	2	1, 2, 3, 4	10
c. Incident Level #3: Low Pressure Injection	2	1	2	1, 2, 3, 4	10
d. Incident Level #4: Containment Spray	2	1	2	1, 2, 3, 4	10
e. Incident Level #5: Containment Sump Recirculation Permissive	2	1	2	1, 2, 3, 4	10

TABLE 3.3-5 (Continued)

SAFETY FEATURES SYSTEM RESPONSE TIMES

INITIATING SIGNAL AND FUNCTION

RESPONSE TIME IN SECONDS

4. RCS Pressure-Low (continued)

i. Containment Isolation Valves

1.	Vacuum Relief	<	30*
2.	Normal Sump	<	25*
3.	RCS Letdown Delay Coil Outlet	<	30*
4.	RCS Letdown High Temperature	<	30*
5.	Pressurizer Sample	<	45*
6.	Service Water to Cooling Water	<	45*
7.	Vent Header	<	15*
8.	Drain Tank	<	15*
9.	Core Flood Tank Vent	<	15*
10.	Core Flood Tank Fill	<	15*
11.	Steam Generator Sample	<	15*
12.	Atmospheric Vent	<	17*
13.	Quench Tank	<	15*
14.	Emergency Sump		NA*
15.	RCP Seal Return	<	45*
16.	Air Systems	<	15*
17.	N ₂ System	<	15*
18.	Quench Tank Sample	<	35*
19.	Main Steam Warmup Drain	<	15*
20.	Makeup	<	30*
21.	RCP Seal Inlet	<	17*
22.	Core Flood Tank Sample	<	15*
23.	RCP Standpipe Demin Water Supply	<	15*
24.	Containment H ₂ Dilution Inlet	<	75*
25.	Containment H ₂ Dilution Outlet	<	75*

j. BWST Outlet Valves NA*

5. RCS Pressure--Low-Low

a. Low Pressure Injection

1.	Decay Heat Pumps	<	30*
2.	Low Pressure Injection Valves	<	NA*
3.	Decay Heat Pump Suction Valves	<	NA*
4.	Decay Heat Cooler Outlet Valves	<	NA*
5.	Decay Heat Cooler Bypass Valves	<	NA*

b. Component Cooling Isolation Valves

1.	Auxiliary Equipment Inlet	<	90*
2.	Inlet to Air Compressor	<	90*
3.	Component Cooling from Decay Heat Cooler	<	NA*

TABLE 3.3-5 (Continued)

SAFETY FEATURES SYSTEM RESPONSE TIMES

<u>INITIATING SIGNAL AND FUNCTION</u>	<u>RESPONSE TIME IN SECONDS</u>
6. Containment Radiation - High	
a. Emergency Vent Fans	≤ 25*
b. HV & AC Isolation Valves	
1. ECCS Room	≤ 75*
2. Emergency Ventilation	≤ 75*
3. Containment Air Sample	≤ 30*
4. Containment Purge	≤ 15*
5. Penetration Room Purge	≤ 75*
c. Control Room HV & AC Units	≤ 10*

TABLE NOTATION

- * Diesel generator starting and sequence loading delays included when applicable. Response time limit includes movement of valves and attainment of pump or blower discharge pressure.

TABLE 4.3-2

SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES IN WHICH SURVEILLANCE REQUIRED
1. INSTRUMENT STRINGS				
a. Containment Radiation - High	S	R	M	1,2,3,4,6#
b. Containment Pressure - High	S	R	M(2)	1, 2, 3
c. Containment Pressure - High-High	S	R	M(2)	1, 2, 3
d. RCS Pressure - Low	S	R	M	1, 2, 3
e. RCS Pressure - Low-Low	S	R	M	1, 2, 3
f. BWST Level - Low -Low	S	R	M	1, 2, 3
2. OUTPUT LOGIC				
a. Incident Level #1: Containment Isolation	S	R	M	1,2,3,4,6#
b. Incident Level #2: High Pressure Injection and Starting Diesel Generators	S	R	M	1, 2, 3, 4
c. Incident Level #3: Low Pressure Injection	S	R	M	1, 2, 3, 4
d. Incident Level #4: Containment Spray	S	R	M	1, 2, 3, 4
e. Incident Level #5: Containment Sump Recirculation Permissive	S	R	M	1, 2, 3, 4
3. MANUAL ACTUATION				
a. SFAS (Except Containment Spray and Emergency Sump Recirculation)	NA	NA	M(1)	1,2,3,4,6#
b. Containment Spray	NA	NA	M(1)	1, 2, 3
4. SEQUENCE LOGIC CHANNELS				
	S	NA	M	1, 2, 3, 4

TABLE 4.3-2

SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
5. INTERLOCK CHANNELS				
a. Decay Heat Isolation Valve	S	R	**	1, 2, 3, 4, 5
b. Pressurizer Heater	S	R	**	3,4,5

**See Specification 4.5.2.d.1

TABLE NOTATION

- (1) Manual actuation switches shall be tested at least once per 18 months during shutdown. All other circuitry associated with manual safeguards actuation shall receive a CHANNEL FUNCTIONAL TEST at least once per 31 days.
- (2) The CHANNEL FUNCTIONAL TEST shall include exercising the transmitter by applying either vacuum or pressure to the appropriate side of the transmitter. The provisions of Section 3.0.3 are not applicable for the first test of each channel following the first refueling outage.
- # The surveillance requirements of Section 4.9.4 apply during core alterations or movement of irradiated fuel within the containment.

EMERGENCY CORE COOLING SYSTEMS

ECES SUBSYSTEMS - $T_{\text{evp}} > 290^{\circ}\text{F}$

LIMITING CONDITION FOR OPERATION

3.5.2 Two independent ECES subsystems shall be OPERABLE with each subsystem comprised of:

- a. One OPERABLE high pressure injection (HPI) pump.
- b. One OPERABLE low pressure injection (LPI) pump.
- c. One OPERABLE decay heat cooler, and
- d. An OPERABLE flow path capable of taking suction from the borated water storage tank (BWST) on a safety injection signal and manually transferring suction to the containment sump during the recirculation phase of operation.

APPLICABILITY: MODES 1, 2 and 3.

ACTION:

- a. With one ECES subsystem inoperable, restore the inoperable subsystem to OPERABLE status within 72 hours or be in HCT SHUTDOWN within the next 12 hours.
- b. In the event the ECES is actuated and injects water into the Reactor Coolant System, a Special Report shall be prepared and submitted to the Commission pursuant to Specification 6.9.2 within 90 days describing the circumstances of the actuation and the total accumulated actuation cycles to date.

SURVEILLANCE REQUIREMENTS

4.5.2 Each ECES subsystem shall be demonstrated OPERABLE:

- a. 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.

SURVEILLANCE REQUIREMENTS

- b. At least once per 18 months, or prior to operation after ECCS piping has been drained by verifying that the ECCS piping is full of water by venting the ECCS pump casings and discharge piping high points.
- c. By a visual inspection which verifies that no loose debris (rags, trash, clothing, etc.) is present in the containment which could be transported to the containment emergency sump and cause restriction of the pump suction during LOCA conditions. This visual inspection shall be performed:
 1. For all accessible areas of the containment prior to establishing CONTAINMENT INTEGRITY, and
 2. Of the areas affected within containment at the completion of each containment entry when CONTAINMENT INTEGRITY is established.
- d. At least once per 18 months by:
 1. Verifying that the interlocks:
 - a) Close DH-11 and DH-12 and deenergize the pressurizer heaters, if either DH-11 or DH-12 is open and a simulated reactor coolant system pressure which is greater than the trip setpoint (<438 psig) is applied.
 - b) Prevent the opening of DH-11 and DH-12 when a simulated or actual reactor coolant system pressure which is greater than the trip setpoint (<438 psig) is applied.
 2. a) A visual inspection of the containment emergency sump which verifies that the subsystem suction inlets are not restricted by debris and that the sump components (trash racks, screens, etc.) show no evidence of structural distress or corrosion.
 - b) Verifying that on a Borated Water Storage Tank (BWST) Low-Low Level interlock trip, the BWST Outlet Valve HV-DH7A (HV-DH7B) automatically close in <75 seconds after the operator manually pushes the control switch to open the Containment Emergency Sump Valve HV-DH9A (HV-DH9B) which should be verified to open in <75 seconds.
3. Verifying a total leak rate \leq 20 gallons per hour for the LPI system at:
 - a) Normal operating pressure or hydrostatic test pressure of \geq 150 psig for those parts of the system downstream of the pump suction isolation valve, and
 - b) \geq 45 psig for the piping from the containment emergency sump isolation valve to the pump suction isolation valve.

EMERGENCY CORE COOLING SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

4. Verifying that a minimum of 72 cubic feet of solid granular trisodium phosphate dodecahydrate (TSP) is contained within the TSP storage baskets.
 5. Verify that a representative sample of TSP from a TSP storage basket has a density of ≥ 53 lbs/cu ft.
 6. Verifying that when a representative sample of 0.35 ± 0.05 lbs of TSP from a TSP storage basket is submerged, without agitation, in 50 ± 5 gallons of $180 \pm 10^\circ\text{F}$ borated water from the BWST, the pH of the mixed solution is raised to ≥ 6 within 4 hours.
- e. At least once per 18 months, during shutdown, by
1. Verifying that each automatic valve in the flow path actuates to its correct position on a safety injection test signal.
 2. Verifying that each HPI and LPI pump starts automatically upon receipt of a SFAS test signal.
- f. By performing a vacuum leakage rate test of the watertight enclosure for valves DH-11 and DH-12 that assures the motor operators on valves DH-11 and DH-12 will not be flooded for at least 7 days following a LOCA:
1. At least once per 18 months.
 2. After each opening of the watertight enclosure.
 3. After any maintenance on or modification to the watertight enclosure which could affect its integrity.
- g. By verifying the correct position of each mechanical position stop for valves DH-14A and DH-14B.
1. Within 4 hours following completion of the opening of the valves to their mechanical position stop or following completion of maintenance on the valve when the LPI system is required to be OPERABLE
 2. At least once per 18 months.