

August 27, 1984

DLR 016

Docket No. 50-346

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Mr. Richard P. Crouse
Vice President, Nuclear
Toledo Edison Company
Edison Plaza - Stop 712
300 Madison Avenue
Toledo, Ohio 43652

Dear Mr. Crouse:

SUBJECT: AMENDMENT NO. 75 TO FACILITY OPERATING LICENSE NO. NPF-3
DIESEL GENERATOR SURVEILLANCE REQUIREMENTS

The Commission has issued the enclosed Amendment No. 75 to Facility Operating License No. NPF-3 for the Davis-Besse Nuclear Power Station, Unit No. 1. This amendment consists of changes to the Appendix A Technical Specifications (TSs) in response to Item 3 of your application dated July 10, 1981 (No. 731), as modified by Item 1 of your letter dated May 2, 1983 (No. 938), Item 3 of your application dated February 22, 1983 (No. 913) and Item 4 of your application dated August 18, 1983 (No. 979).

This amendment changes Sections 4.8.1.1.2 and 4.8.1.2 to correct errors concerning surveillance testing of the diesel generators to demonstrate operability. The amendment also corrects typographical errors in Section 6.9.1.5.b. and Table 3.6-2.

A copy of the Safety Evaluation supporting this amendment is enclosed. Notice of Issuance will be included in the Commission's Monthly Notice.

Sincerely,

original signed by:

Albert DeAgazio, Project Manager
Operating Reactors Branch No. 4
Division of Licensing

Enclosures:

1. Amendment No. 75 to NPF-3
2. Safety Evaluation

cc w/enclosures:
See next page

<i>DLR</i> ORB#4:DL RIngram 08/16/84	ORB#4:DL ADeAgazio;ef 08/16/84	ORB#4:DL JFStutz 08/16/84	OELD 08/21/84	AD:OR:DL GLainas 08/29/84
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Toledo Edison Company

cc w/enclosure(s):

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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. 75
License No. NPF-3

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The applications for amendment by The Toledo Edison Company and The Cleveland Electric Illuminating Company (the licensees) dated July 10, 1981, as revised May 2, 1983; February 23, 1983; and August 18, 1983, comply 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 applications, 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.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-3 is hereby amended to read as follows:

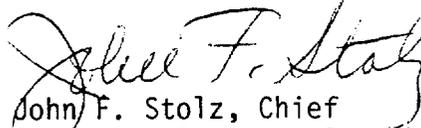
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Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 75 , 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



John F. Stolz, Chief
Operating Reactors Branch No. 4
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: August 27, 1984

ATTACHMENT TO LICENSE AMENDMENT NO. 75

FACILITY OPERATING LICENSE NO. NPF-3

DOCKET NO. 50-346

Replace the following pages of the Appendix "A" Technical Specifications with the enclosed pages. 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 6-19

3/4 8-3

3/4 8-5

6-15

TABLE 3.6-2

CONTAINMENT ISOLATION VALVES (Continued)

<u>PENETRATION</u> <u>NUMBER</u>	<u>VALVE</u> <u>NUMBER</u>	<u>FUNCTION</u>	<u>ISOLATION</u> <u>TIME</u> (seconds)
67	CV5090	Hydrogen Dilution System Supply	60
68A	SS235A	Pressurizer Quench Tank Sample	30
68A	SS235B	Pressurizer Quench Tank Sample	30
68B	CV5010B	Containment Air Sample	15
68B	CV5011B	Containment Air Sample	15
69	CV5065	Hydrogen Dilution System Supply	60
71B	CV5010A	Containment Air Sample	15
71B	CV5011A	Containment Air Sample	15
71C	CV1544	Core Flood Tank N2 Fill	10
73B	CV5010C	Containment Air Sample	15
73B	CV5011C	Containment Air Sample	15
74B	CV5010D	Containment Air Sample	15
74B	CV5011D	Containment Air Sample	15
B. CONTAINMENT PURGE AND EXHAUST ISOLATION			
33 ##	CV5005	Containment Vessel Purge Inlet Line	10
33 ##	CV5006	Containment Vessel Purge Inlet Line	10
34 ##	CV5007	Containment Vessel Purge Outlet Line	10
34 ##	CV5008	Containment Vessel Purge Outlet Line	10
C. OTHER			
5 #	SW1366	Containment Air Cooling Units SW Inlet Line	N/A
6 #	SW1368	Containment Air Cooling Units SW Inlet Line	N/A
7 #	SW1367	Containment Air Cooling Units SW Inlet Line	N/A
9 #	SW1356	Containment Air Cooling Units SW Outlet Line	N/A

TABLE 3.6-2

CONTAINMENT ISOLATION VALVES (Continued)

<u>PENETRATION VALVE NUMBER</u>	<u>NUMBER</u>	<u>FUNCTION</u>	<u>ISOLATION TIME (seconds)</u>
10 #	SW1358	Containment Air Cooling Units SW Inlet Line	N/A
11 #	SW1357	Containment Air Cooling Units SW Outlet Line	N/A
17	CV343	Containment Vessel Leak Test Inlet Line	
17	Flange	Containment Vessel Leak Test Inlet Line (Inside Containment)	N/A
19 #	HP57	High Pressure Injection Line	N/A
20 #	HP56	High Pressure Injection Line	N/A
22 #	HP49	High Pressure Injection Line	N/A
23 #	SF1	Fuel Transfer Tube	N/A
23	Flange	Fuel Transfer Tube	N/A
24 #	SF2	Fuel Transfer Tube	N/A
24	Flange	Fuel Transfer Tube	N/A
*25	CS33	Containment Spray Line	N/A
*25	CS17	Containment Spray Line	N/A
25	SA536	Containment Spray Line	N/A
25	SA532	Containment Spray Line	N/A
*26	CS36	Containment Spray Line	N/A
*26	CS18	Containment Spray Line	N/A
26	SA535	Containment Spray Line	N/A
26	SA533	Containment Spray Line	N/A
27 #	DH1A	Low Pressure Injection Line	N/A
27 #	DH76	Low Pressure Injection Line	N/A
27 #	DH1B	Low Pressure Injection Line	N/A
28 #	DH77	Low Pressure Injection Line	N/A

ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

4.8.1.1.2 Each diesel generator shall be demonstrated OPERABLE:

- a. At least once per 31 days on a STAGGERED TEST BASIS by:
 1. Verifying the fuel level in the day fuel tank,
 2. Verifying the fuel level in the fuel storage tank,
 3. Verifying the fuel transfer pump can be started and transfers fuel from the storage system to the day tank,
 4. Verifying the diesel starts from ambient condition and accelerates to at least 900 rpm in ≤ 10 seconds,
 5. Verifying the generator is synchronized, loaded to ≥ 1000 kw, and operates for ≥ 60 minutes, and
 6. Verifying the diesel generator is aligned to provide standby power to the associated essential busses.
 7. Verifying that the automatic load sequence timer is OPERABLE with each load sequence time within $\pm 10\%$ of its required value.
- b. At least once per 92 days by verifying that a sample of diesel fuel from the fuel storage tank is within the acceptable limits specified in Table 1 of ASTM D975-68 when checked for viscosity, water and sediment.
- c. At least once per 18 months during shutdown by:
 1. Subjecting the diesel to an inspection in accordance with procedures prepared in conjunction with its manufacturer's recommendations for this class of standby service,
 2. Verifying the generator capability to reject a load equal to the largest single emergency load supplied by the generator without tripping.
 3. Simulating a loss of offsite power in conjunction with a safety injection actuation test signal, and:
 - (a) Verifying de-energization of the essential busses and load shedding from the essential busses,

ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- b) Verifying the diesel starts from ambient condition on the auto-start signal, energizes the essential busses with permanently connected loads, energizes the auto-connected essential loads through the load sequencer and operates for ≥ 5 minutes while its generator is loaded with the essential loads.
 - c) Verifying that all diesel generator trips, except engine overspeed and generator differential, are automatically bypassed upon loss of voltage on the essential bus and/or an SFAS test signal.
4. Verifying the diesel generator operates for ≥ 60 minutes while loaded to ≥ 2000 kw.
 5. Verifying that the auto-connected loads to each diesel generator do not exceed the 2000 hour rating of 2838 kw.

ELECTRICAL POWER SYSTEMS

SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.8.1.2 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

- a. One circuit between the offsite transmission network and the onsite Class 1E distribution system consisting of;
 1. One OPERABLE 345 KV transmission line,
 2. One OPERABLE 345 KV - 13.8 KV startup transformer, and
 3. One OPERABLE 13.8 KV bus, and
- b. One diesel generator with:
 1. Day fuel tank containing a minimum volume of 4000 gallons of fuel,
 2. A fuel storage system containing a minimum volume of 32,000 gallons of fuel, and
 3. A fuel transfer pump.

APPLICABILITY: MODES 5 and 6.

ACTION:

With less than the above minimum required A.C. electrical power sources OPERABLE, suspend all operations involving CORE ALTERATIONS or positive reactivity changes until the minimum required A.C. electrical power sources are restored to OPERABLE status.

SURVEILLANCE REQUIREMENTS

4.8.1.2 The above required A.C. electrical power sources shall be demonstrated OPERABLE by the performance of each of the Surveillance Requirements of 4.8.1.1.1 and 4.8.1.1.2 except for requirement 4.8.1.1.2.a.5 and 4.8.1.1.2.a.7.

ELECTRICAL POWER SYSTEMS

3/4.8.2 ONSITE POWER DISTRIBUTION SYSTEMS

A.C. DISTRIBUTION - OPERATING

LIMITING CONDITION FOR OPERATION

3.8.2.1 The following A.C. electrical busses shall be OPERABLE and energized with tie breakers open between redundant busses:

4160 volt Essential Bus # C1

4160 volt Essential Bus # D1

480 volt Essential Bus # E1

480 volt Essential Bus # F1

120 volt A.C. Vital Bus # Y1

120 volt A.C. Vital Bus # Y2

120 volt A.C. Vital Bus # Y3

120 volt A.C. Vital Bus # Y4

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With less than the above complement of A.C. busses OPERABLE, restore the inoperable bus to OPERABLE status within 8 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.8.2.1 The specified A.C. busses shall be determined OPERABLE with tie breakers open between redundant busses at least once per 7 days by verifying correct breaker alignment and indicated power availability.

ADMINISTRATIVE CONTROLS

power operation), supplementary reports shall be submitted at least every three months until all three events have been completed.

ANNUAL OPERATING REPORT^{1/}

6.9.1.4 Annual reports covering the activities of the unit during the previous calendar year shall be submitted prior to March 31 of each year. The initial report shall be submitted prior to March 1 of the year following initial criticality.

6.9.1.5 Reports required on an annual basis shall include:

- a. A tabulation on an annual basis of the number of station, utility and other personnel (including contractors) receiving exposures greater than 100 mrem/yr and their associated man rem exposure according to work and job functions, e.g., reactor operations and surveillance, inservice inspection, routine maintenance, special maintenance (describe maintenance), waste processing, and refueling. The dose assignment to various duty functions may be estimates based on pocket dosimeter, TLD, or film badge measurements. Small exposures totalling less than 20% of the individual total dose need not be accounted for. In the aggregate, at least 80% of the total whole body dose received from external sources shall be assigned to specific major work functions.
- b. The complete results of steam generator tube inservice inspections (Specification 4.4.5.5.b).

MONTHLY OPERATING REPORT

6.9.1.6 Routine reports of operating statistics and shutdown experience shall be submitted on a monthly basis to the Director, Office of Management and Program Analysis, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, with a copy to the Regional Office, to arrive no later than the 15th of each month following the calendar month covered by the report.

^{1/} A single submittal may be made for a multiple unit station. The submittal should combine those sections that are common to all units at the station.

^{2/} This tabulation supplements the requirements of §20.407 of 10 CFR Part 20.

ADMINISTRATIVE CONTROLS

REPORTABLE OCCURRENCES

6.9.1.7 The REPORTABLE OCCURRENCES of Specifications 6.9.1.8 and 6.9.1.9, including corrective actions and measures to prevent recurrence, shall be reported to the NRC. Supplemental reports may be required to fully describe final resolution of occurrence. In case of corrected or supplemental reports, a licensee event report shall be completed and reference shall be made to the original report date.

PROMPT NOTIFICATION WITH WRITTEN FOLLOWUP

6.9.1.8 The types of events listed below shall be reported within 24 hours by telephone and confirmed by telegraph, mailgram, or facsimile transmission to the Director of the Regional Office, or his designate no later than the first working day following the event, with a written followup report within two weeks. The written followup report shall include, as a minimum, a completed copy of a licensee event report form. Information provided on the licensee event report form shall be supplemented, as needed, by additional narrative material to provide complete explanation of the circumstances surrounding the event.

- a. Failure of the reactor protection system or other systems subject to limiting safety system settings to initiate the required protective function by the time a monitored parameter reaches the setpoint specified as the limiting safety system setting in the technical specifications or failure to complete the required protective function.
- b. Operation of the unit or affected systems when any parameter or operation subject to a limiting condition for operation is less conservative than the least conservative aspect of the limiting condition for operation established in the technical specifications.
- c. Abnormal degradation discovered in fuel cladding, reactor coolant pressure boundary, or primary containment.
- d. Reactivity anomalies involving disagreement with the predicted value of reactivity balance under steady state conditions during power operation greater than or equal to 1% $\Delta k/k$; a calculated reactivity balance indicating a SHUTDOWN MARGIN less conservative than specified in the technical specifications; short-term reactivity increases that correspond to a reactor period of less than 5 seconds or, if subcritical, an unplanned reactivity insertion of more than 0.5% $\Delta k/k$; or occurrence of any unplanned criticality.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO. 75 TO FACILITY OPERATING LICENSE NO. NPF-3

TOLEDO EDISON COMPANY

AND

THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

DAVIS-BESSE NUCLEAR POWER STATION, UNIT NO. 1

DOCKET NO. 50-346

INTRODUCTION

By letter dated July 10, 1981, and modified by letter dated May 2, 1983, the Toledo Edison Company (TED) proposed several amendments to the Appendix A Technical Specifications (TSs). One of the proposed amendments related to correcting errors in TS Sections 4.8.1.1.2 and 4.8.1.2 concerning surveillance requirements to be performed on the A.C. electrical power sources. The proposed changes both relate to certain tests on the onsite diesel generators to be conducted while the facility is in a shutdown mode.

The licensee also identified certain typographical errors in the TSs in letters dated February 22, 1983 (Item 3) and August 18, 1983 (Item 4).

EVALUATION

Section 4.8.1.1.2.c of the current Davis-Besse TSs requires that at least once per 18 months, among other surveillance requirements, that each diesel generator be demonstrated operable by verifying the generator capability to reject a load of 480KW or less without tripping. The Standard Technical Specifications for Babcock and Wilcox PWRs, NUREG-0103, Rev. 4, indicates that one of the surveillance tests to be performed to demonstrate diesel generator operability is to verify the generator capability to reject a load greater than or equal to the largest single emergency load without exceeding voltage, frequency, or unit overspeed limits.

The largest single emergency load connected to each diesel generator is a 600 HP Service Water Pump Motor which during normal operation would have a normal expected load of about 548 HP and requiring about 450 KW. As currently written, the TSs would allow the test with a load less than 450 KW. Such a test would not demonstrate adequately the load rejection capability for the single largest operational load.

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The licensee proposes to modify TS Surveillance Requirement 4.8.1.1.2.c.2 to specify verifying the diesel generator capability to reject a load equal to the largest single emergency load supplied by the generator without tripping. The licensee's proposed change would eliminate the ambiguity of the current surveillance requirement and would make it consistent with the intent of the Standard Technical Specifications. Therefore, we find the proposed change acceptable.

Section 4.8.1.2 of the current Davis-Besse TSs requires, among other surveillance requirements, that each diesel generator be demonstrated operable by conducting certain surveillance requirements listed in Section 4.8.1.1.1 and 4.8.1.1.2 except for 4.8.1.1.2.a.5. The licensee proposes to modify Section 4.8.1.2 to except surveillance requirements 4.8.1.1.2.a.7 in addition to 4.8.1.1.2.a.5. The modification, therefore, would eliminate the requirement to perform surveillance each 31 days for each diesel generator to verify that the automatic load sequence timer is operable.

Section 4.8.1.2 applies only when the facility is in the cold shutdown or refueling mode. The licensee's basis for the proposed modification is that the load sequencer is required to be operable only when the facility is in an operational mode other than cold shutdown or refueling per TS Section 3.3.2.1, Table 3.3-3, and that in cold shutdown or refueling the Safety Features Actuation System (SFAS) automatic load sequencer is not required because the reactor coolant system is sufficiently cooled down and depressurized and, therefore, automatic sequence loading of emergency loads on the diesel generators is not needed.

The automatic load sequence timer controls the loading of emergency electrical loads onto the diesel-generators in the event SFAS is actuated when normal or reserve power is unavailable. This loading sequence provides for the rapid energizing of emergency loads without overloading the diesel-generators by application of excessive starting loads.

The only SFAS functions required to be operable in either cold shutdown or refueling are containment isolation on high radiation in containment (refueling mode), manual SFAS actuation to initiate containment isolation, and interlocks on the decay heat isolation valves and pressurizer heaters. None of these functions are dependent upon the rapid availability of power from the diesel-generators. Therefore, in the event of unavailability of normal or reserve power when in the cold shutdown or refueling mode, automatic loading of the diesel generators is not required. We, therefore, agree with the licensee that since the automatic load sequence timer is not required to be operable during cold shutdown or refueling, surveillance of the load sequence timer when in cold shutdown or refueling is not required. We therefore find the proposed change acceptable.

Typographical errors have been identified and corrected. One appeared in TS Section 6.9.1.5.b (misspelling of "generator") and the other in Table 3.6-2 (misidentification of valve CV 5010D in penetration 74 B).

ENVIRONMENTAL CONSIDERATION

This amendment involves a change in the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. We have determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this amendment.

CONCLUSION

We have concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: August 27, 1984

Principal Contributor: A. DeAgazio