



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

THE CLEVELAND ELECTRIC ILLUMINATING COMPANY, ET AL.

DOCKET NO. 50-440

PERRY NUCLEAR POWER PLANT, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 53
License No. NPF-58

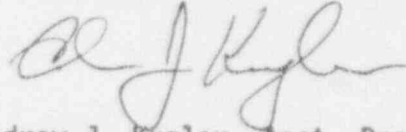
1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by The Cleveland Electric Illuminating Company, Centerior Service Company, Duquesne Light Company, Ohio Edison Company, Pennsylvania Power Company, and Toledo Edison Company (the licensees) dated March 19, 1991, 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.
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-58 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 1,3 are hereby incorporated into this license. The Cleveland Electric Illuminating Company shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

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

FOR THE NUCLEAR REGULATORY COMMISSION



Andrew J. Kugler, Asst. Project Manager
Project Directorate III-3
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of issuance: December 17, 1993

ATTACHMENT TO LICENSE AMENDMENT NO. 53

FACILITY OPERATING LICENSE NO. NPF-58

DOCKET NO. 50-440

Replace the following pages of the Appendix "A" Technical Specifications with the attached pages. The revised pages are identified by Amendment number and contain vertical lines indicating the area of change. Overleaf pages are provided to maintain document completeness.

<u>Remove</u>	<u>Insert</u>
3/4 3-28	3/4 3-28
3/4 3-29	3/4 3-29
3/4 3-31	3/4 3-31

INSTRUMENTATION

3/4.3.3 EMERGENCY CORE COOLING SYSTEM ACTUATION INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3 The emergency core cooling system (ECCS) actuation instrumentation channels shown in Table 3.3.3-1 shall be OPERABLE with their trip setpoints set consistent with the values shown in the Trip Setpoint column of Table 3.3.3-2 and with the EMERGENCY CORE COOLING SYSTEM RESPONSE TIME as shown in Table 3.3.3-3.

APPLICABILITY: As shown in Table 3.3.3-1.

ACTION:

- a. With an ECCS actuation instrumentation channel trip setpoint less conservative than the value shown in the Allowable Values column of Table 3.3.3-2, declare the channel inoperable until the channel is restored to OPERABLE status with its trip setpoint adjusted consistent with the Trip Setpoint value.
- b. With one or more ECCS actuation instrumentation channels inoperable, take the ACTION required by Table 3.3.3-1.
- c. With either ADS trip system "A" or "B" inoperable, restore the inoperable trip system to OPERABLE status:
 1. Within 7 days, provided that the HPCS and RCIC systems are OPERABLE, or,
 2. Within 72 hours, provided either the HPCS or RCIC system is inoperable.

Otherwise, be in at least HOT SHUTDOWN within the next 12 hours and reduce reactor steam dome pressure to less than or equal to 100 psig within the following 24 hours.

SURVEILLANCE REQUIREMENTS

4.3.3.1 Each ECCS actuation instrumentation channel shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL FUNCTIONAL TEST and CHANNEL CALIBRATION operations for the OPERATIONAL CONDITIONS and at the frequencies shown in Table 4.3.3.1-1.

4.3.3.2 LOGIC SYSTEM FUNCTIONAL TESTS and simulated automatic operation of all channels shall be performed at least once per 18 months.

4.3.3.3 The ECCS RESPONSE TIME of each ECCS trip function shown in Table 3.3.3-3 shall be demonstrated to be within the limit at least once per 18 months. Each test shall include at least one channel per trip system such that all channels are tested at least once every N times 18 months where N is the total number of redundant channels in a specific ECCS trip system.

TABLE 3.3.3-1

EMERGENCY CORE COOLING SYSTEM ACTUATION INSTRUMENTATION

TRIP FUNCTION	MINIMUM OPERABLE CHANNELS PER TRIP FUNCTION ^(*)	APPLICABLE OPERATIONAL CONDITIONS	ACTION
A. DIVISION 1 TRIP SYSTEM			
1. RHR-A (LPCI MODE) AND LPCS SYSTEM			
a. Reactor Vessel Water Level - Low, Level 1	2 ^(b)	1, 2, 3, 4*, 5*	30
b. Drywell Pressure - High	2 ^(b)	1, 2, 3	30
c. LPCS Pump Discharge Flow - Low (Bypass)	1	1, 2, 3, 4*, 5*	39
d. Reactor Vessel Pressure - Low (LPCS Injection Valve Permissive)	1	1, 2, 3 4, 5	31 32
e. Reactor Vessel Pressure - Low (LPCI Injection Valve Permissive)	1	1, 2, 3 4, 5	31 32
f. LPCI Pump A Start Time Delay Relay	1	1, 2, 3, 4*, 5*	31
g. LPCI Pump A Discharge Flow - Low (Bypass)	1	1, 2, 3, 4*, 5*	39
h. Manual Initiation	1	1, 2, 3, 4*, 5*	33
2. AUTOMATIC DEPRESSURIZATION SYSTEM TRIP SYSTEM "A"			
a. Reactor Vessel Water Level - Low, Level 1	2 ^(b)	1, 2, 3	30
b. Manual Inhibit	1	1, 2, 3	31
c. ADS Timer	1	1, 2, 3	31
d. Reactor Vessel Water Level - Low, Level 3 (Permissive)	1	1, 2, 3	31
e. LPCS Pump Discharge Pressure - High (Permissive)	2	1, 2, 3	31
f. LPCI Pump A Discharge Pressure - High (Permissive)	2	1, 2, 3	31
g. Manual Initiation	2	1, 2, 3	33

TABLE 3.3.3-1 (Continued)

EMERGENCY CORE COOLING SYSTEM ACTUATION INSTRUMENTATION

<u>TRIP FUNCTION</u>	<u>MINIMUM OPERABLE CHANNELS PER TRIP FUNCTION^(a)</u>	<u>APPLICABLE OPERATIONAL CONDITIONS</u>	<u>ACTION</u>
B. <u>DIVISION 2 TRIP SYSTEM</u>			
1. <u>RHR B AND C (LPCI MODE)</u>			
a. Reactor Vessel Water Level - Low, Level 1	2 ^(b)	1, 2, 3, 4*, 5*	30
b. Drywell Pressure - High	2 ^(b)	1, 2, 3	30
c. Reactor Vessel Pressure - Low (LPCI Injection Valve Permissive)	1	1, 2, 3 4, 5*	31 32
d. LPCI Pump B Start Time Delay Relay	1	1, 2, 3, 4*, 5*	31
e. LPCI Pump Discharge Flow - Low (Bypass)	1/pump	1, 2, 3, 4*, 5*	39
f. Manual Initiation	1	1, 2, 3, 4*, 5*	33
2. <u>AUTOMATIC DEPRESSURIZATION SYSTEM TRIP SYSTEM "B"</u>			
a. Reactor Vessel Water Level - Low, Level 1	2 ^(b)	1, 2, 3	30
b. Manual Inhibit	1	1, 2, 3	31
c. ADS Timer	1	1, 2, 3	31
d. Reactor Vessel Water Level - Low, Level 3 (Permissive)	1	1, 2, 3	31
e. LPCI Pump B and C Discharge Pressure - High (Permissive)	2	1, 2, 3	31
f. Manual Initiation	2	1, 2, 3	33

TABLE 3.3.3-1 (Continued)

EMERGENCY CORE COOLING SYSTEM ACTUATION INSTRUMENTATION

TRIP FUNCTION	MINIMUM OPERABLE CHANNELS PER TRIP FUNCTION ^(a)	APPLICABLE OPERATIONAL CONDITIONS	ACTION		
C. DIVISION 3 TRIP SYSTEM					
1. HPCS SYSTEM					
a. Reactor Vessel Water Level - Low, Level 2	4 ^(b)	1, 2, 3, 4 ^a , 5 ^a	34		
b. Drywell Pressure - High ^{##}	4 ^(b)	1, 2, 3	34		
c. Reactor Vessel Water Level - High, Level B	4 ^(c)	1, 2, 3, 4 ^a , 5 ^a	34		
d. Condensate Storage Tank Level - Low	2 ^(d)	1, 2, 3, 4 ^a , 5 ^a	35		
e. Suppression Pool Water Level - High	2 ^(d)	1, 2, 3, 4 ^a , 5 ^a	35		
f. HPCS Pump Discharge Pressure - High (Bypass)	1	1, 2, 3, 4 ^a , 5 ^a	39		
g. HPCS System Flow Rate - Low (Bypass)	1	1, 2, 3, 4 ^a , 5 ^a	39		
h. Manual Initiation ^{###}	1	1, 2, 3, 4 ^a , 5 ^a	36		
D. LOSS OF POWER					
1. 4.16 kv Emergency Bus Undervoltage ^{###} (Loss of Voltage)	2/bus	2/bus	2/bus	1, 2, 3, 4 ^{aa} , 5 ^{aa}	37
2. 4.16 kv Emergency Bus Undervoltage ^{###} (Degraded Voltage)	2/bus	2/bus	2/bus	1, 2, 3, 4 ^{aa} , 5 ^{aa}	38

^(a) A channel may be placed in an inoperable status for up to 2 hours during periods of required surveillance without placing the trip system in the tripped condition provided at least one other OPERABLE channel in the same trip system is monitoring that parameter.

^(b) Also actuates the associated division diesel generator.

^(c) Provides signal to close HPCS pump injection valve only.

^(d) Provides signal to HPCS pump suction valves only.

^a When the system is required to be OPERABLE per Specification 3.5.2 or 3.5.3.

^{aa} Required when ESF equipment is required to be OPERABLE.

[#] Not required to be OPERABLE when reactor steam dome pressure is less than or equal to 100 psig.

^{##} The injection function of Drywell Pressure - High and Manual Initiation are not required to be OPERABLE with indicated reactor vessel water level on the wide range instrument greater than the Level B setpoint coincident with the reactor pressure less than 450 psig.

^{###} The Loss of Voltage and Degraded Voltage functions are common to Divisions 1, 2 and 3.

TABLE 3.3.3-1 (Continued)
EMERGENCY CORE COOLING SYSTEM ACTUATION INSTRUMENTATION
ACTION

- ACTION 30 - With the number of OPERABLE channels less than required by the Minimum OPERABLE Channels per Trip Function requirement:
a. With one channel inoperable, place the inoperable channel in the tripped condition within one hour or declare the associated ADS trip system or ECCS inoperable.
b. With more than one channel inoperable, declare the associated ADS trip system or ECCS inoperable.
- ACTION 31 - With the number of OPERABLE channels less than required by the Minimum OPERABLE Channels per Trip Function requirement, declare the associated ADS trip system or ECCS inoperable.
- ACTION 32 - With the number of OPERABLE channels less than required by the Minimum OPERABLE Channels per Trip Function requirement, place the inoperable channel in the tripped condition within one hour.
- ACTION 33 - With the number of OPERABLE channels less than required by the Minimum OPERABLE Channels per Trip Function requirement, restore the inoperable channel to OPERABLE status within 8 hours or declare the associated ADS trip system or ECCS inoperable.
- ACTION 34 - With the number of OPERABLE channels less than required by the Minimum OPERABLE Channels per Trip Function requirement, place the inoperable channel(s) in the tripped condition within one hour or declare the HPCS system inoperable.
- ACTION 35 - With the number of OPERABLE channels less than required by the Minimum OPERABLE Channels per Trip Function requirement, place at least one inoperable channel in the tripped condition within one hour, or align the HPCS system to take suction from the suppression pool, or declare the HPCS system inoperable.
- ACTION 36 - With the number of OPERABLE channels less than required by the Minimum OPERABLE Channels per Trip Function requirement, place at least one inoperable channel in the tripped condition within one hour or declare the HPCS system inoperable.
- ACTION 37 - With the number of OPERABLE channels less than the Total Number of Channels, declare the associated emergency diesel generator inoperable and take the ACTION required by Specification 3.8.1.1 or 3.8.1.2 as appropriate.
- ACTION 38 - With the number of OPERABLE channels less than the Total Number of Channels, place the inoperable channel in the tripped condition within one hour; operation may then continue until performance of the next required CHANNEL FUNCTIONAL TEST.
- ACTION 39 - With the number of OPERABLE channels less than required by the Minimum OPERABLE Channels per Trip Function requirement, place the inoperable channel in the tripped condition within one hour. Restore the inoperable channel to OPERABLE status within 7 days or declare the associated system inoperable.

TABLE 3.3.3-2

EMERGENCY CORE COOLING SYSTEM ACTUATION INSTRUMENTATION SETPOINTS

<u>TRIP FUNCTION</u>	<u>TRIP SETPOINT</u>	<u>ALLOWABLE VALUE</u>
<u>A. DIVISION 1 TRIP SYSTEM</u>		
<u>1. RHR-A (LPCI MODE) AND LPCS SYSTEM</u>		
a. Reactor Vessel Water Level - Low, Level 1	≥ 16.5 inches*	≥ 14.3 inches
b. Drywell Pressure - High	≤ 1.68 psig	≤ 1.88 psig
c. LPCS Pump Discharge Flow - Low (Bypass)	≥ 1350 gpm	≥ 1200 gpm
d. Reactor Vessel Pressure - Low (LPCS Injection Valve Permissive)	577.7 ± 15 psig	577.7 + 30, -95 psig
e. Reactor Vessel Pressure - Low (LPCI Injection Valve Permissive)	502.5 + 5, -10 psig	502.5 + 10, -40 psig
f. LPCI Pump A Start Time Delay Relay	≤ 5 seconds	≤ 5.25 seconds
g. LPCI Pump A Discharge Flow - Low (Bypass)	≥ 1650 gpm	≥ 1450 gpm
h. Manual Initiation	NA	NA
<u>2. AUTOMATIC DEPRESSURIZATION SYSTEM TRIP SYSTEM "A"</u>		
a. Reactor Vessel Water Level - Low Level 1	≥ 16.5 inches*	≥ 14.3 inches
b. Manual Inhibit	NA	NA
c. ADS Timer	≤ 105 seconds	≤ 117 seconds
d. Reactor Vessel Water Level - Low, Level 3 (Permissive)	≥ 177.7 inches*	≥ 177.1 inches
e. LPCS Pump Discharge Pressure - High (Permissive)	≥ 145 psig, increasing	≥ 125 psig, increasing
f. LPCI Pump A Discharge Pressure - High (Permissive)	≥ 125 psig, increasing	≥ 115 psig, increasing
g. Manual Initiation	NA	NA