



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

METROPOLITAN EDISON COMPANY

JERSEY CENTRAL POWER & LIGHT COMPANY

PENNSYLVANIA ELECTRIC COMPANY

GPU NUCLEAR CORPORATION

DOCKET NO. 50-289

THREE MILE ISLAND NUCLEAR STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 200  
License No. DPR-50

1. The Nuclear Regulatory Commission (the Commission or NRC) has found that:
  - A. The application for amendment by GPU Nuclear Corporation, et al. (the licensee) dated August 10, 1995, as supplemented on December 21, 1995 and February 22, 1996, 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.

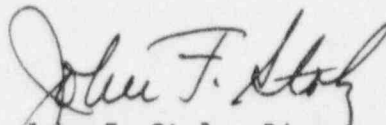
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.c.(2) of Facility Operating License No. DPR-50 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 200, are hereby incorporated in the license. GPU Nuclear Corporation shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance, to be implemented within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



John F. Stolz, Director  
Project Directorate I-2  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical  
Specifications

Date of Issuance: March 21, 1996

ATTACHMENT TO LICENSE AMENDMENT NO. 200

FACILITY OPERATING LICENSE NO. DPR-50

DOCKET NO. 50-289

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.

Remove

3-32  
4-2a  
4-5  
4-10  
4-46

Insert

3-32  
4-2a  
4-5  
4-10  
4-46

TABLE 3.5-1 (Cont'd)

## INSTRUMENTS OPERATING CONDITIONS

Functional Unit	(A) Minimum Operable Channels	(B) Minimum Degree of Redundancy	(C) Operator Action if Conditions of Column A and B Cannot Be Met
<b>C. Engineered Safety Features (cont'd)</b>			
<b>3. Reactor Building Isolation and Cooling System</b>			
a. Reactor Bldg. 4 psig Instrument Channel	2	1(b)	(a)
b. Manual Pushbuttons			
i. 4 psig feature	2	N/A	(g)
ii. 30 psig feature	2	N/A	(g)
c. Deleted			
d. Reactor Building 30 psig pressure switches	2	1	(c)
e. RCS Pressure less than 1600 psig	2	1(b)	(a)
f. Reactor Building Purge Line Isolation (AH-V1A and AH-V1D) High Radiation	1	0	(f)
<b>4. Reactor Building Spray System</b>			
a. Reactor Building 30 psig pressure switches	2	1	(d)
b. Spray Pump Manual Switches	2	N/A	(g)
<b>5. 4.16KV ES Bus Undervoltage Relays</b>			
a. Degraded Grid Voltage Relays	2	1	(e)
b. Loss of Voltage Relay	2	1	(e)

### Bases (Cont'd.)

Channels subject only to "drift" errors induced within the instrumentation itself can tolerate longer intervals between calibrations. Process system instrumentation errors induced by drift can be expected to remain within acceptance tolerances if recalibration is performed at the intervals of each refueling period.

Substantial calibration shifts within a channel (essentially a channel failure) will be revealed during routine checking and testing procedures.

Thus, minimum calibration frequencies set forth are considered acceptable.

### Testing

On-line testing of reactor protection channels is required monthly on a rotational basis. The rotation scheme is designed to reduce the probability of an undetected failure existing within the system and to minimize the likelihood of the same systematic test errors being introduced into each redundant channel (Reference 1).

The rotation schedule for the reactor protection channels is as follows:

- a) Deleted
- b) Monthly with one channel being tested per week on a continuous sequential rotation.

The reactor protection system instrumentation test cycle is continued with one channel's instrumentation tested each week. Upon detection of a failure that prevents trip action in a channel, the instrumentation associated with the protection parameter failure will be tested in the remaining channels. If actuation of a safety channel occurs, assurance will be required that actuation was within the limiting safety system setting.

The protection channels coincidence logic, the control rod drive trip breakers and the regulating control rod power SCRs electronic trips, are trip tested monthly. The trip test checks all logic combinations and is to be performed on a rotational basis.

Discovery of a failure that prevents trip action requires the testing of the instrumentation associated with the protection parameter failure in the remaining channels.

For purposes of surveillance, reactor trip on loss of feedwater and reactor trip on turbine trip are considered reactor protection system channels.

TABLE 4.1-1 (Continued)

<u>CHANNEL DESCRIPTION</u>	<u>CHECK</u>	<u>TEST</u>	<u>CALIBRATE</u>	<u>REMARKS</u>
19. Reactor Building Emergency Cooling and Isolation System Analog Channels				
a. Reactor Building 4 psig Channels	S(1)	M(1)	F	(1) When CONTAINMENT INTEGRITY is required.
b. RCS Pressure 1600 psig	S(1)	M(1)	NA	(1) When RCS Pressure > 1800 psig.
c. Deleted				
d. Reactor Bldg. 30 psig pressure switches	S(1)	M(1)	F	(1) When CONTAINMENT INTEGRITY is required.
e. Reactor Bldg. Purge Line High Radiation (AH-VIA/D)	W(1)	M(1)(2)	F	(1) When CONTAINMENT INTEGRITY is required.
f. Line Break Isolation Signal (ICCW & NSCCW)	W(1)	M(1)	R	(1) When CONTAINMENT INTEGRITY is required.
20. Reactor Building Spray System Logic Channel	NA	Q	NA	
21. Reactor Building Spray 30 psig pressure switches	NA	M	F	
22. Pressurizer Temperature Channels	S	NA	R	
23. Control Rod Absolute Position	S(1)	NA	R	(1) Check with Relative Position Indicator.
24. Control Rod Relative Position	S(1)	NA	R	(1) Check with Absolute Position Indicator.
25. Core Flooding Tanks				
a. Pressure Channels	S(1)	NA	F	(1) When Reactor Coolant system pressure is greater than 700 psig.
b. Level Channels	S(1)	NA	F	
26. Pressurizer Level Channels	S	NA	R	

TABLE 4.1-3 Cont'd.

Item	Check	Frequency
4. Spent Fuel Pool Water Sample	Boron concentration greater than or equal to 600 ppmb	Monthly and after each makeup.
5. Secondary Coolant System Activity	Isotopic analysis for DOSE EQUIVALENT I-131 concentration	At least once per 72 hours when reactor coolant system pressure is greater than 300 psig or T <sub>av</sub> is greater than 200°F.
6. Boric Acid Mix Tank or Reclaimed Boric Acid Tank	Boron concentration	Twice weekly***
7. Deleted		
8. Deleted		
9. Deleted		
10. Sodium Hydroxide Tank	Concentration	Semi-Annually and after each makeup.
11. Deleted		
12. Deleted		
#	Until the specific activity of the primary coolant system is restored within its limits.	
*	Sample to be taken after a minimum of 2 EFPD and 20 days of POWER OPERATION have elapsed since the reactor was last subcritical for 48 hours or longer.	
**	Deleted	
***	The surveillance of either the Boric Acid Mix Tank or the Reclaimed Boric Acid Tank is not necessary when that respective tank is empty.	

Applicability: Applies to periodic testing and surveillance requirement of the emergency power system.

Objective: To verify that the emergency power system will respond promptly and properly when required.

Specification:

The following tests and surveillance shall be performed as stated:

#### 4.6.1 Diesel Generators

- a. Manually-initiate start of the diesel generator, followed by manual synchronization with other power sources and assumption of load by the diesel generator up to the name-plate rating (3000 kw). This test will be conducted every month on each diesel generator. Normal plant operation will not be effected.
- b. Automatically start and loading the emergency diesel generator in accordance with Specification 4.5.1.1.b/c including the following. This test will be conducted every refueling interval on each diesel generator.
  - (1) Verify that the diesel generator starts from ambient condition upon receipt of the ES signal and is ready to load in  $\leq 10$  seconds.
  - (2) Verify that the diesel block loads upon simulated loss of offsite power in  $\leq 30$  seconds.
  - (3) The diesel operates with the permanently connected and auto connected load for  $\geq 5$  minutes.
  - (4) The diesel engine does not trip when the generator breaker is opened while carrying emergency loads.
  - (5) The diesel generator block loads and operates for  $\geq 5$  minutes upon reclosure of the diesel generator breaker.
- c. Each diesel generator shall be given an inspection at least annually in accordance with the manufacturer's recommendations for this class of stand-by service.

#### 4.6.2 Station Batteries

- a. The voltage, specific gravity, and liquid level of each cell will be measured and recorded:
  - (1) every 92 days
  - (2) once within 24 hours after a battery discharge  $< 105$  V
  - (3) once within 24 hours after a battery overcharge  $> 150$  V
  - (4) If any cell parameters are not met, measure and record the parameters on each connected cell every 7 days thereafter until all battery parameters are met.
- b. The voltage and specific gravity of a pilot cell will be measured and recorded weekly. If any pilot cell parameters are not met, perform surveillance 4.6.2.a on each connected cell within 24 hours and every 7 days thereafter until all battery parameters are met.
- c. Each time data is recorded, new data shall be compared with old to detect signs of abuse or deterioration.