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

JERSEY CENTRAL POWER & LIGHT COMPANY

DOCKET NO. 50-219

OYSTER CREEK NUCLEAR GENERATING STATION, UNIT NO. 1

AMENDMENT TO PROVISIONAL OPERATING LICENSE

Amendment No. 39
License No. DPR-16

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Jersey Central Power & Light Company (the licensee) dated May 23, 1979, as supported by letter dated May 19, 1979, 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 3.B of Provisional Operating License No. DPR-16 is hereby amended to read as follows:

   B. Technical Specifications

   The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 39 , are hereby incorporated in the license. The licensee 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

Dennis L. Ziemann, Chief
Operating Reactors Branch #2
Division of Operating Reactors

Attachment:
Changes to the Technical
Specifications

Date of Issuance: July 23, 1979

ATTACHMENT TO LICENSE AMENDMENT NO. 39

PROVISIONAL OPERATING LICENSE NO. DPR-16

DOCKET NO. 50-219

Revise Appendix A Technical Specifications by removing the pages identified below and inserting the enclosed pages. The revised pages are identified by the captioned amendment number and contain vertical lines indicating the areas of change.

REMOVE	INSERT
2.3-3	2.3-3
3.1-8	3.1-8
3.10-1	3.10-1
3.10-2	3.10-2
3.10-9	3.10-9
	(Figure 3.10-1)
3.10-10	--
(Figure 3.10-2)	

FUNCTION	LIMITING SAFETY SYSTEM SETTINGS
7) Low Pressure Main Steam Line, MSIV Closure	≥ 825 psig
8) Main Steam Line Isolation Valve Closure, Scram	≤ 10% Valve Closure from full open
9) Reactor Low Water Level, Scram	≥ 11',5" above the top of the active fuel as indicated under normal operating condition
10) Reactor Low-Low Water Level, Main Steam Line Isolation Valve Closure.	≥ 7',2" above the top of the active fuel as indicated under normal operating conditions.
11) Reactor Low-Low Water Level, Core Spray Initiation	≥ 7'2" above the top of the active fuel.
12) Reactor Low-Low Water Level, Isolation Condenser Initiation	≥ 7'2" above the top of the active fuel with time delay ≤ 3 seconds.
13) Turbine Trip Scram	10 percent turbine stop valve(s closure from full open.
14) Generator Load Rejection Scram	Initiate upon loss of oil pressure from turbine acceleration relay.

BASES: Safety limits have been established in Specifications 2.1 and 2.2 to protect the integrity of the fuel cladding and reactor coolant system barriers. Automatic protective devices have been provided in the plant design to take corrective action to prevent the safety limits from being exceeded in normal operation or operational transients caused by reasonable expected single operator error or equipment malfunction. This Specification establishes the trip settings for these automatic protection devices.

The Average Power Range Monitor, APRM(1), trip setting has been established to assure never reaching the fuel cladding integrity safety limit. The APRM system responds to changes in neutron flux. However, near rated thermal power the APRM is calibrated, using a plant heat balance, so that the neutron flux that is sensed is read out as percent of rated thermal power. For slow maneuvers, those where core thermal power, surface heat flux, and the power transferred to the water follow the neutron flux, the APRM will read reactor thermal power. For fast transients, the neutron flux will lead the power transferred from the cladding to the water due to the effect of the fuel time constant. Therefore, when the neutron flux increases to the scram setting, the percent increase in heat flux and power transferred to the water will be less than the percent increase in neutron flux.

The APRM trip setting will be varied automatically with recirculation flow with the trip setting at rated flow 61.0×10^5 lb/hr or greater being 113.7% of rated neutron flux. Based on a complete

TABLE 3.1.1 PROTECTIVE INSTRUMENTATION REQUIREMENTS (CONTD)

Function	Trip Setting	Reactor Modes in Which Function Must Be Operable: Shutdown	Refuel	Startup	Run	Min. No. of Operable or Operating (Tripped) Trip Systems	Min. No. of Operable Instrument Channels Per Operable Trip Systems	Action Required*
B. Reactor Isolation								Close main steam isolation valves and close isolation condenser vent valves, or place in cold shutdown condition
1. Low-Low Reactor Water Level	**	X	X	X	X	2	2	
2. High Flow in Main Steam-line A	≤ 120% rated	X	X	X	X	2	2	
3. High Flow in Main Steam-line B	≤ 120% rated	X	X	X	X	2	2	
4. High Temperature in Main Steamline Tunnel	≤ Ambient at Power + 50°F	X	X	X	X	2	2	
5. Low Pressure in Main Steam-line	**				X	2	2	
6. High Radiation in Main Steam Tunnel	≤ 10X Normal Background	X	X	X	X	2	2	
C. Isolation Condenser								
1. High Reactor Pressure	**	X	X	X	X	2	2	Close isolation condenser steam supply valves, or place plant in cold shutdown condition
2. Low-Low Reactor Water	**	X	X	X	X	2	2	

Amendment No. 5

3.10 CORE LIMITS

Applicability: Applies to core conditions required to meet the Final Acceptance Criteria for Emergency Core Cooling Performance.

Objective: To assure conformance to the peak clad temperature limitations during a postulated loss-of-coolant accident as specified in 10 CFR 50.46 (January 4, 1974) and to assure conformance to the 17.2 KW/ft. (for 7 x 7 fuel) and 14.5 KW/ft. (for 8 x 8 fuel) operating limits for local linear heat generation rate.

Specification: A. Average Planar LHGR

During power operation, the average linear heat generation rate (LHGR) of all the rods in any fuel assembly, as a function of average planar exposure, at any axial location shall not exceed the maximum average planar LHGR (MAPLHGR) limit shown in Figure 3.10-1. If at any time during power operation it is determined by normal surveillance that the limiting value for APLHGR is being exceeded, action shall be initiated to restore operation to within the prescribed limits. If the APLHGR is not returned to within the prescribed limits within two (2) hours, action shall be initiated to bring the reactor to the cold shutdown condition within 36 hours. During this period surveillance and corresponding action shall continue until reactor operation is within the prescribed limits at which time power operation may be continued.

B. Local LHGR

During power operation, the linear heat generation rate (LHGR) of any rod in any fuel assembly, at any axial location shall not exceed the maximum allowable LHGR as calculated by the following equation:

$$LHGR \leq LHGR_d \left[1 - \frac{(\Delta P)}{P} \max \left(\frac{L}{LT} \right) \right]$$

Where: $LHGR_d$ = Limiting LHGR

$\frac{\Delta P}{P}$ = Maximum Power Spiking Penalty

LT = Total Core Length - 144 inches

L = Axial position above bottom of core

and

Fuel Type	LHGR $_d$	P/P
II	17.2	.032
IIIE	17.2	.046
IIIF	17.2	.033
V	14.5	.033
VB	14.5	.039

If at any time during operation it is determined by normal surveillance that the limiting value for LHGR is being exceeded, action shall be initiated to restore operation to within the prescribed limits. If the LHGR is not returned to within the prescribed limits within two (2) hours, action shall be initiated to bring the reactor to the cold shutdown condition within 36 hours. During this period, surveillance and corresponding action shall continue until reactor operation is within the prescribed limits at which time power operation may be continued.

C. Assembly Averaged Power Void Relationship

During power operation, the assembly average void fraction and assembly power shall be such that the following relationship is satisified:

$$\left(\frac{1-VF}{PR \times FCP}\right) \geq B$$

Where: VF = Bundle average boid fraction
PR = Assembly radial power factor
FCP = Fractional core power (relative to 1930 MWt)
B = Power Void limit

The limiting values of "B" for each fuel type are shown in the table below:

Fuel Type(s)	B
I, II, III	.365
IIIE, IIIF	.377
V, VB	.332

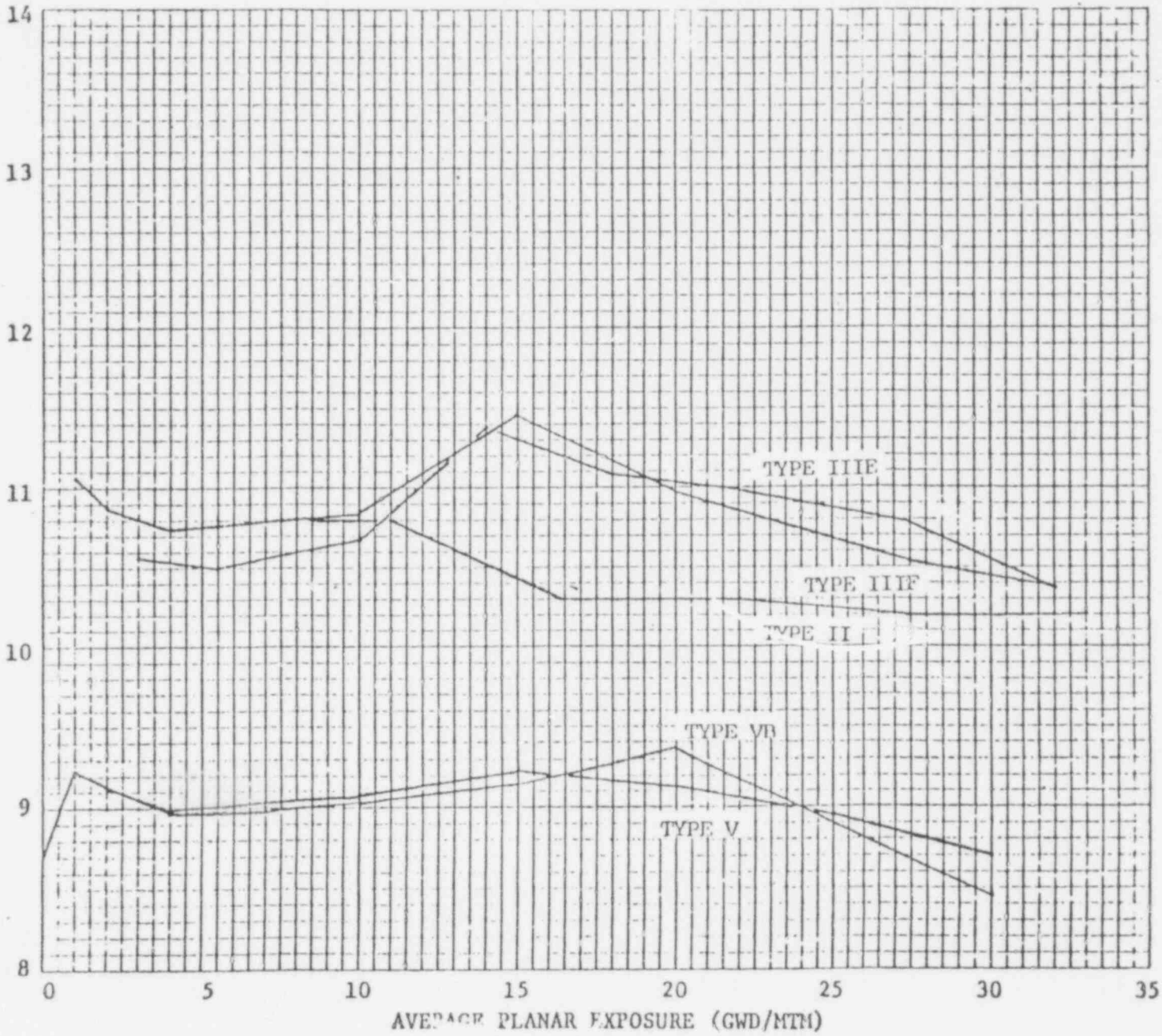
D. Minimum Critical Power Ratio (MCPR)

During steady state power operation, MCPR shall be greater than or equal to the following:

ARPM Status	MCPR Limit
1. If any two (2) LPRM assemblies which are input to the APRM system and are separated in distance by less than	1.64

FIGURE 3.10-1

MAXIMUM ALLOWABLE AVERAGE PLANAR
LINEAR HEAT GENERATION RATE



MAPLHGR LIMITS
FOR 4 RECIRCULATION
PUMP OPERATION IN OYSTER CREEK