



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

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. 164  
License No. DPR-50

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by GPU Nuclear Corporation, et al. (the licensee) dated November 14, 1990, as supplemented June 6, June 14, September 18, November 17, and December 12, 1991, and February 13, 1992, 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.

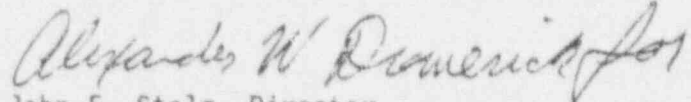
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.c.(2) of Facility Operating License No. DPR-50 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 164, 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-4  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical  
Specifications

Date of Issuance: April 27, 1992

ATTACHMENT TO LICENSE AMENDMENT NO. 164

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.

<u>Remove</u>	<u>Insert</u>
viii	viii
5-6	5-6
5-7	5-7
---	5-7a

## LIST OF FIGURES

<u>Figure</u>	<u>Title</u>
3.5-2K thru 3.5-2L	DELETED
3.5-2M	LOCA Limited Maximum Allowable Linear Heat Rate
3.5-1	Incore Instrumentation Specification Axial Imbalance Indication, TMI-1
3.5-2	Incore Instrumentation Specification Radial Flux Tilt Indication, TMI-1
3.5-3	Incore Instrumentation Specification
3.11-1	Transfer Path to and from Cask Loading Pit
4.17-1	Snubber Functional Test - Sample Plan 2
5-1	Extended Plot Plan TMI
5-2	Site Topography 5 Mile Radius
5-3	Locations of Gaseous Effluent Release Points and Liquid Effluent Outfalls
5-4	Relationship Between Initial Enrichment and Acceptable Fuel Burnup (Spent Fuel Pool A - Region II)

## 5.4 NEW AND SPENT FUEL STORAGE FACILITIES

### Applicability

Applies to storage facilities for new and spent fuel assemblies.

### Objective

To assure that both new and spent fuel assemblies will be stored in such a manner that an inadvertent criticality could not occur.

### Specification

#### 5.4.1 NEW FUEL STORAGE

- a. New fuel will normally be stored in the new fuel storage vault or spent fuel pools. The fuel assemblies are stored in racks in parallel rows, having a nominal center to center distance of 21-1/8 inches in both directions for the new fuel storage vault. The fuel assemblies are stored in racks in parallel rows, having a nominal center to center distance of 11.1 inches in both directions for the Region I racks and 9.20 inches in both directions for the Region II racks for the Spent Fuel Pool "A". The fuel assemblies are stored in racks in parallel rows, having a nominal center to center distance of 13-5/8 inches in both directions for the Spent Fuel Pool "B". This spacing is sufficient to maintain a K effective of less than .95 based on fuel assemblies with an enrichment of 4.3 weight percent  $U^{235}$  for the new fuel storage vault and Spent Fuel Pool "B". The spacing is sufficient to maintain a K effective of less than .95 based on fuel assemblies with an enrichment of 4.6 weight percent  $U^{235}$  for Region I of the Spent Fuel Pool "A". When fuel is being stored in the new fuel storage vault, twelve (12) storage locations (aligned in two rows of six locations each; transverse row numbers four and eight) must be left vacant of fissile or moderating material to provide sufficient neutron leakage to satisfy the NRC maximum allowable reactivity value under the optimum low moderator density condition. When fuel is being moved in or over the Spent Fuel Storage Pool "A" and fuel is being stored in the pool, a boron concentration of at least 600 ppmb must be maintained to ensure meeting the NRC maximum allowable reactivity value under the postulated accident condition of a misplaced fuel assembly.
- b. Deleted.
- c. New fuel may also be stored in shipping containers.

5.4.2 SPENT FUEL STORAGE (Reference 1)

- a. Irradiated fuel assemblies will be stored, prior to offsite shipment, in the stainless steel lined spent fuel pools, which are located in the fuel handling building.
- b. Whenever there is fuel in the pool except for initial fuel loading, the spent fuel pool is filled with water borated to the concentration used in the reactor cavity and fuel transfer canal.
- c. Deleted.
- d. The fuel assembly storage racks provided and the number of fuel elements each will store are listed by location below:

	Spent Fuel Pool A North End of Fuel Handling Building	Spent Fuel Pool B South End of Fuel Handling Building	Dry New Fuel Storage Area Fuel Handling Building
Fuel Assys	846 **	496 ***	66****
Cores	4.78	2.8	0.37

- NOTES: \*\* Includes three spaces for accommodating failed fuel containers. An additional 648 storage locations can be installed to provide a total of 1494 locations, or 8.44 cores.
- \*\*\* Spent Fuel Pool B contains spent fuel storage racks with a center-to-center spacing of 13 5/8 inches to increase the storage capacity of the pool.
- \*\*\*\* Includes twelve spaces which are required to be vacant of fissile or moderating material so that there is sufficient neutron leakage.

- e. All of the fuel assembly storage racks provided are designed to Seismic Class 1 criteria to the accelerations indicated below:

	Fuel Handling Building Dry New Fuel Storage Area And Spent Fuel Pool A	Fuel Handling Building Spent Fuel Pool B
Horiz.	0.38 g	*
Vertical	0.25 g	*

- \* The "B" pool fuel storage racks are designed using the floor response spectra of the Fuel Handling Building.
- f. Fuel in the storage pool shall have a U-235 loading equal to or less than 57.8 grams of U-235 per axial centimeter of fuel assembly.
- g. When spent fuel assemblies are stored in Region II storage racks of the Spent Fuel Pool "A", the combination of initial enrichment and cumulative burnup for spent fuel assemblies shall be within the acceptable area of Figure 5-4.

REFERENCES

- (1) UFSAR, Section 9.7 - "Fuel Handling System"

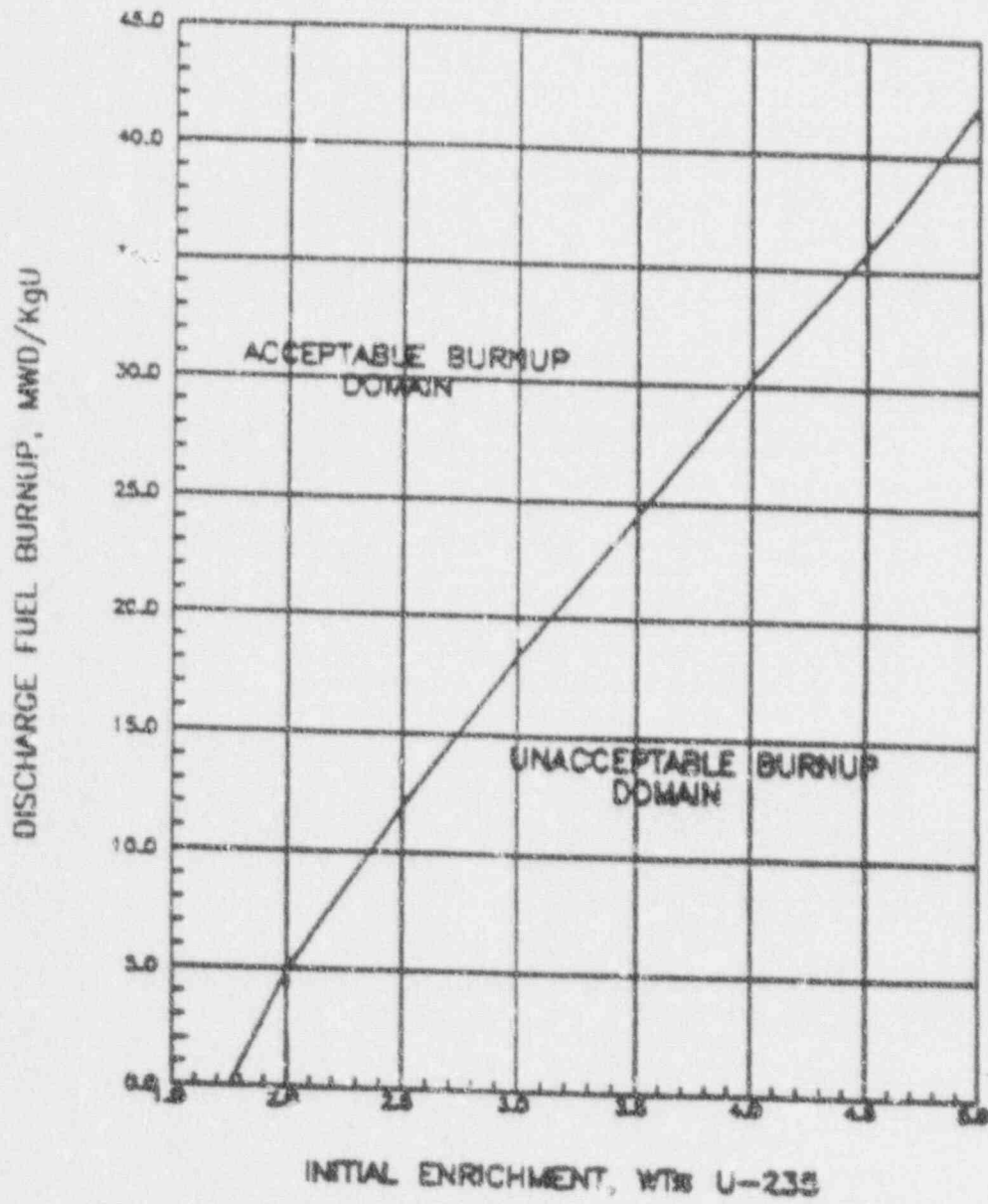


Figure 5-4 Relationship between Initial Enrichment and Acceptable Fuel Burnup (Spent Fuel Pool A - Region II)