(4) EOI, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;

(5) EOI, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components;

(6) EOI, pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.

c. This renewed license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Chapter I: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Sections 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70; is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

EOI is authorized to operate the facility at steady state reactor core power levels not in excess of 2568 megawatts thermal.

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 228, are hereby incorporated in the renewed license. EOI shall operate the facility in accordance with the Technical Specifications.

(3) Safety Analysis Report

The licensee's SAR supplement submitted pursuant to 10 CFR 54.21(d), as revised on March 14, 2001, describes certain future inspection activities to be completed before the period of extended operation. The licensee shall complete these activities no later than May 20, 2014.

(4) Physical Protection

EOI shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification,

3.7 PLANT SYSTEMS

3.7.14 Spent Fuel Pool Boron Concentration

LCO 3.7.14 The spent fuel pool boron concentration shall be >2000 ppm.

APPLICABILITY: When fuel assemblies are stored in the spent fuel pool.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Spent fuel pool boron concentration not within limit.	----------NOTE---------- LCO 3.0.3 is not applicable. ----------	
	A.1 Suspend movement of fuel assemblies in the spent fuel pool.	Immediately
	AND	
	A.2 Initiate action to restore spent fuel pool boron concentration to within limit.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.14.1	Verify the spent fuel pool boron concentration is > 2000 ppm.	7 days

3.7 PLANT SYSTEMS

3.7.15 Spent Fuel Pool Storage

LCO 3.7.15 Fuel assemblies shall be stored in the spent fuel pool within the acceptable limits of Table 3.7.15-1 or in accordance with Specification 4.3.1.1.

APPLICABILITY: Whenever any fuel assembly is stored in the spent fuel pool.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Requirements of the LCO not met.	A.1 ----------NOTE---------- LCO 3.0.3 is not applicable. ---------- Initiate action to move the non-complying fuel assembly to an acceptable storage location in accordance with Table 3.7.15-1.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.15.1	Verify by administrative means the parameters associated with the fuel assembly are in accordance with Table 3.7.15-1 or Specification 4.3.1.1.	Prior to storing the fuel assembly in the spent fuel pool.
SR 3.7.15.2	Verify Metamic properties are in accordance with, and are maintained within the limits of, the Metamic Coupon Sampling Program.	In accordance with the Metamic Coupon Sampling Program.

Table 3.7.15-1
Loading Restrictions for Spent Fuel Storage Racks

Region 1 - Minimum Burnup Requirements at Varying Initial U-235 Enrichment and Cooling Time (Notes 1 & 2)

Enrichment	2.0	2.5	3.0	3.5	4.0	4.5	5.0
Cooling Time (Years)	Minimum Burnup (GWD/MTU)						
0	2.3	9.2	15.5	22.1	27.7	33.0	39.0
5	2.2	8.7	14.8	21.1	26.7	31.1	37.1
10	2.1	8.3	14.0	20.0	25.6	29.8	35.3
15	2.0	8.1	13.6	19.4	25.3	29.1	34.0
20	2.0	8.0	13.5	19.0	24.6	28.6	33.3

Region 2 - Minimum Burnup Requirements at Varying Initial U-235 Enrichment and Cooling Time (Notes 1 & 2)

Enrichment	2.0	2.5	3.0	3.5	4.0	4.5	5.0
Cooling Time (Years)	Minimum Burnup (GWD/MTU)						
0	4.5	11.7	18.7	25.7	30.6	36.9	42.8
5	4.2	11.0	17.6	24.2	29.1	34.4	40.7
10	4.0	10.6	16.7	23.0	28.1	33.0	38.6
15	4.0	10.1	15.9	22.4	27.4	31.8	37.4
20	4.0	9.8	15.7	21.8	26.8	31.2	36.4

Region 3 Loading Restrictions

Unrestricted storage is allowed for fuel assemblies with an initial U-235 enrichment less than or equal to 4.35 wt%.

For fuel assemblies with an initial U-235 enrichment greater than 4.35 wt%, the burnup of at least one fuel assembly in each 2 x 2 section of storage cells is at least 20.1 GWD/MTU.

Note 1: Linear interpolation between burnups for a given cooling time is allowed. However, linear interpolation between cooling times is not allowed, therefore the cooling time of a given assembly must be rounded down to the nearest cooling time.

Note 2: When it is necessary to store fuel assemblies in Region 1 or Region 2 that do not meet the burnup versus U-235 enrichment restrictions, fuel assemblies, including fresh or irradiated fuel assemblies with a maximum U-235 enrichment of 4.95 wt%, may be stored in a 2 x 2 checkerboard (i.e., 2 assemblies and 2 empty cells) arrangement.

Table 3.7.15-1 (continued)
Loading Restrictions for the Spent Fuel Storage Racks

Rack Interface Requirements

In addition to the above requirements for each individual rack, the following requirements must be met on the interfaces between and within racks:

a. In the Region 1 and Region 2 racks, a fresh fuel checkerboard and uniform spent fuel loading may be placed in the same rack.

b. In Region 1 and Region 2 racks, if adjacent racks contain a checkerboard of fresh fuel assemblies, the checkerboard must be maintained across the gap, i.e., fresh fuel assemblies may not face each other across a gap.

c. In Region 3, uniform loading of fresh fuel with a maximum U-235 enrichment of 4.35wt% may be combined with 3 of 4 loading in the same rack as long as a row of fresh and spent fuel in the 3 of 4 loading pattern faces the uniform loading of all fresh fuel with a maximum U-235 enrichment of 4.35 wt%.

d. If adjacent Region 3 racks contain different loading patterns (one rack contains all fresh fuel with a maximum U-235 enrichment of 4.35 wt% and the other rack contains a 3 of 4 loading pattern), both fresh and spent fuel must be in the outer row of the rack containing the 3 of 4 pattern.

e. If adjacent Region 3 racks both contain 3 of 4 loading patterns, both racks may not have fresh fuel facing the other rack. A loading pattern with both Region 3 racks containing 3 of 4 patterns with all fresh fuel in the outer row of one rack and fresh and spent fuel in the outer row of the second rack is allowed.

f. All interfaces between dissimilar racks (Region 1-Region 3 and Region 2-Region 3) are permitted.

4.0 DESIGN FEATURES

4.3 Fuel Storage

4.3.1 Criticality

4.3.1.1 The spent fuel storage racks are designed and shall be maintained with:

a. Fuel assemblies having a maximum U-235 enrichment of 4.95 weight percent;

b. $k_{eff} \leq 0.95$ if fully flooded with 444 ppm of borated water, which includes an allowance for uncertainties as described in Section 9.6.2.4.3 of the SAR;

c. $k_{eff} < 1.0$ if fully flooded with unborated water, which includes an allowance for uncertainties as described in Section 9.6.2.4.3 of the SAR;

d. A nominal 10.65 inch center to center distance between fuel assemblies placed in the storage racks;

e. New or partially spent fuel assemblies stored in accordance with Table 3.7.15-1 in the spent fuel storage racks;

f. New or partially spent fuel assemblies with cooling times, U-235 enrichment or discharge burnup in the unacceptable range of Table 3.7.15-1 for fuel assemblies stored in Region 1 or Region 2 may be stored in a 2 x 2 checkerboard configuration (i.e., 2 assemblies and 2 empty cells); and

g. Neutron absorber (Metamic) installed between fuel assemblies in the Region 3 racks.

4.3.1.2 The new fuel storage racks are designed and shall be maintained with:

a. Fuel assemblies having a maximum U-235 enrichment of 4.95 weight percent;

b. $k_{eff} \leq 0.95$ under normal conditions, which includes an allowance for uncertainties as described in Section 9.6.2.4.3 of the SAR;

c. $k_{eff} \leq 0.98$ with optimum moderation, which includes an allowance for uncertainties as described in Section 9.6.2.4.3 of the SAR;

d. A nominal 21 inch center to center distance between fuel assemblies placed in the storage racks; and

e. Fuel assembly loading prohibited in interior storage cells as shown in Figures 4.3.1.2-1 and 4.3.1.2-2, based on U-235 fuel enrichment.

Figure 4.3.1.2-1

Fresh Fuel Storage Rack
Loading Pattern for a Maximum Enrichment of 4.95 wt% U-235

NORTH

			NO	NO			
			NO	NO			
			NO	NO			
			NO	NO			
			NO	NO			

"NO" Indicates a location in which fuel loading is prohibited.

Figure 4.3.1.2-2

Fresh Fuel Storage Rack
Loading Pattern for a Maximum Enrichment of 4.2 wt% U-235

NORTH

			NO	NO			
		NO	NO	NO	NO		
			NO	NO			

"NO" Indicates a location in which fuel loading is prohibited.

5.0 ADMINSTRATIVE CONTROLS

5.5 Programs and Manuals

5.5.16 Reactor Building Leakage Rate Testing Program

A program shall be established to implement the leakage rate testing of the reactor building as required by 10 CFR 50.54(o) and 10 CFR 50, Appendix J, Option B, as modified by approved exemptions. This program shall be in accordance with the guidelines contained in Regulatory Guide 1.163, "Performance-Based Containment Leak-Test Program," dated September 1995, except that the next Type A test performed after the April 16, 1992 Type A test shall be performed no later than April 15, 2007.

In addition, the reactor building purge supply and exhaust isolation valves shall be leakage rate tested once prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days.

The peak calculated reactor building internal pressure for the design basis loss of coolant accident, P_a, is 54 psig.

The maximum allowable reactor building leakage rate, L_a, shall be 0.20% of containment air weight per day at P_a.

Reactor Building leakage rate acceptance criteria is $\leq 1.0L_a$. During the first unit startup following each test performed in accordance with this program, the leakage rate acceptance criteria are $< 0.60L_a$ for the Type B and Type C tests and $< 0.75L_a$ for Type A tests.

The provisions of SR 3.0.2 do not apply to the test frequencies specified in the Reactor Building Leakage Rate Testing Program.

The provisions of SR 3.0.3 are applicable to the Reactor Building Leakage Rate Testing Program.

5.0 ADMINSTRATIVE CONTROLS

5.5 Programs and Manuals

5.5.17 Metamic Coupon Sampling Program

A coupon surveillance program will be implemented to maintain surveillance of the Metamic absorber material under the radiation, chemical, and thermal environment of the SFP. The purpose of the program is to establish the following:

- Coupons will be examined on a two year basis for the first three intervals with the first coupon retrieved for inspection being on or before February 2009 and thereafter at increasing intervals over the service life of the inserts.
- Measurements to be performed at each inspection will be as follows:
  - A) Physical observations of the surface appearance to detect pitting, swelling or other degradation,
  - B) Length, width, and thickness measurements to monitor for bulging and swelling
  - C) Weight and density to monitor for material loss, and
  - D) Neutron attenuation to confirm the B-10 concentration or destructive chemical testing to determine the boron content.
- The provisions of SR 3.0.2 are applicable to the Metamic Coupon Sampling Program.
- The provisions of SR 3.0.3 are not applicable to the Metamic Coupon Sampling Program.