

- (4) UE, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use in amounts as required any byproduct, source of special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
- (5) UE, pursuant to the Act and 10 CFR Parts 30, 40 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 license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and 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

UE is authorized to operate the facility at reactor core power levels not in excess of 3565 megawatts thermal (100% power) in accordance with the conditions specified herein.

(2) Technical Specifications and Environmental Protection Plan*

The Technical Specifications contained in Appendix A, as revised through Amendment No. 181 and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

(3) Environmental Qualification (Section 3.11. SSER #3)**

Deleted per Amendment No. 169

* Amendments 133, 134, & 135 were effective as of April 30, 2000 however these amendments were implemented on April 1, 2000.

** The parenthetical notation following the title of many license conditions denotes the section of the Safety Evaluation Report and/or its supplements wherein the license condition is discussed.

TABLE OF CONTENTS

3.9	REFUELING OPERATIONS	3.9-1
3.9.1	Boron Concentration	3.9-1
3.9.2	Unborated Water Source Isolation Valves	3.9-3
3.9.3	Nuclear Instrumentation	3.9-5
3.9.4	Containment Penetrations	3.9-7
3.9.5	Residual Heat Removal (RHR) and Coolant Circulation - High Water Level	3.9-9
3.9.6	Residual Heat Removal (RHR) and Coolant Circulation - Low Water Level	3.9-11
3.9.7	Refueling Pool Water Level	3.9-13
4.0	DESIGN FEATURES.....	4.0-1
4.1	Site Location	4.0-1
4.2	Reactor Core	4.0-1
4.3	Fuel Storage	4.0-1
5.0	ADMINISTRATIVE CONTROLS	5.0-1
5.1	Responsibility	5.0-1
5.2	Organization	5.0-2
5.3	Unit Staff Qualifications	5.0-4
5.4	Procedures	5.0-5
5.5	Programs and Manuals	5.0-6
5.6	Reporting Requirements	5.0-20
5.7	High Radiation Area	5.0-25

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>B. (continued)</p>	<p>B.2 Perform SR 3.1.1.1.</p>	<p>1 hour <u>AND</u> Once per 12 hours thereafter</p>
	<p><u>AND</u> B.3.1 Close and secure unborated water source isolation valves.</p>	<p>4 hours</p>
	<p><u>AND</u> B.3.2 Verify unborated water source isolation valves are closed and secured.</p>	<p>Once per 31 days</p>
<p>C. No RCS loop in operation.</p>	<p>C.1 Close and secure unborated water source isolation valves.</p>	<p>4 hours</p>
	<p><u>AND</u> C.2 Verify unborated water source isolation valves are closed and secured.</p>	<p>Once per 31 days</p>

3.9 REFUELING OPERATIONS

3.9.2 Unborated Water Source Isolation Valves

LCO 3.9.2 Each valve used to isolate unborated water sources shall be secured in the closed position.

----- NOTE -----
Unborated water sources may be unisolated under administrative controls for planned boron dilution evolutions.

APPLICABILITY: MODE 6.

ACTIONS

----- NOTE -----
Separate Condition entry is allowed for each unborated water source isolation valve.

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>A. ----- NOTE ----- Required Action A.3 must be completed whenever Condition A is entered. -----</p> <p>One or more valves not secured in closed position.</p>	<p>A.1 Suspend CORE ALTERATIONS.</p> <p><u>AND</u></p>	<p>Immediately</p>
	<p>A.2 Initiate actions to secure valve in closed position.</p> <p><u>AND</u></p>	<p>Immediately</p>
	<p>A.3 Perform SR 3.9.1.1.</p>	<p>4 hours</p>

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.9.2.1	Verify each valve that isolates unborated water sources is secured in the closed position.	31 days

3.9 REFUELING OPERATIONS

3.9.3 Nuclear Instrumentation

LCO 3.9.3 Two source range neutron flux monitors shall be OPERABLE.

APPLICABILITY: MODE 6.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One required source range neutron flux monitor inoperable.	A.1 Suspend CORE ALTERATIONS.	Immediately
	<u>AND</u> A.2 Suspend operations that would cause introduction into the RCS, coolant with boron concentration less than required to meet the boron concentration of LCO 3.9.1.	Immediately
B. Two required source range neutron flux monitors inoperable.	B.1 Initiate action to restore one source range neutron flux monitor to OPERABLE status.	Immediately
	<u>AND</u> B.2 Perform SR 3.9.1.1.	Once per 12 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.9.3.1	Perform CHANNEL CHECK.	12 hours
SR 3.9.3.2	<p>----- NOTE -----</p> <p>Neutron detectors are excluded from CHANNEL CALIBRATION.</p> <p>-----</p> <p>Perform CHANNEL CALIBRATION.</p>	18 months

3.9 REFUELING OPERATIONS

3.9.4 Containment Penetrations

LCO 3.9.4 The containment penetrations shall be in the following status:

- a. The equipment hatch closed and held in place by four bolts, or if open, capable of being closed;
- b. One door in the emergency air lock and one door in the personnel air lock capable of being closed; and
- c. Each penetration providing direct access from the containment atmosphere to the outside atmosphere either:
 - 1. closed by a manual or automatic isolation valve, blind flange, or equivalent, or
 - 2. capable of being closed by an OPERABLE Containment Purge Isolation valve.

----- NOTE -----
 Penetration flow path(s) providing direct access from the containment atmosphere to the outside atmosphere may be unisolated under administrative controls.

APPLICABILITY: During CORE ALTERATIONS,
 During movement of irradiated fuel assemblies within containment.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more containment penetrations not in required status.	A.1 Suspend CORE ALTERATIONS.	Immediately
	<u>AND</u> A.2 Suspend movement of irradiated fuel assemblies within containment.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.9.4.1	Verify each required containment penetration is in the required status.	7 days
SR 3.9.4.2	----- NOTE ----- Only required for an open equipment hatch. ----- Verify the capability to install the equipment hatch.	7 days
SR 3.9.4.3	Verify each required containment purge isolation valve actuates to the isolation position on a manual actuation signal.	18 months

3.9 REFUELING OPERATIONS

3.9.5 Residual Heat Removal (RHR) and Coolant Circulation - High Water Level

LCO 3.9.5 One RHR loop shall be OPERABLE and in operation.

----- NOTE -----
 The required RHR loop may be removed from operation for ≤ 1 hour per 8 hour period, provided no operations are permitted that would cause introduction into the Reactor Coolant System, coolant with boron concentration less than that required to meet the minimum required boron concentration of LCO 3.9.1.

APPLICABILITY: MODE 6 with the water level ≥ 23 ft above the top of reactor vessel flange.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. RHR loop requirements not met.	A.1 Suspend operations that would cause introduction into the RCS, coolant with boron concentration less than required to meet the boron concentration of LCO 3.9.1.	Immediately
	<u>AND</u>	
	A.2 Suspend loading irradiated fuel assemblies in the core.	Immediately
	<u>AND</u>	(continued)

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. RHR loop requirements not met. (continued)	A.3 Initiate action to satisfy RHR loop requirements.	Immediately
	<u>AND</u> A.4 Close all containment penetrations providing direct access from containment atmosphere to outside atmosphere.	4 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.9.5.1 Verify one RHR loop is in operation and circulating reactor coolant at a flow rate of ≥ 1000 gpm.	12 hours

3.9 REFUELING OPERATIONS

3.9.6 Residual Heat Removal (RHR) and Coolant Circulation - Low Water Level

LCO 3.9.6 Two RHR loops shall be OPERABLE, and one RHR loop shall be in operation.

APPLICABILITY: MODE 6 with the water level < 23 ft above the top of reactor vessel flange.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Less than the required number of RHR loops OPERABLE.	A.1 Initiate action to restore required RHR loops to OPERABLE status.	Immediately
	OR A.2 Initiate action to establish ≥ 23 ft of water above the top of reactor vessel flange.	Immediately

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. No RHR loop in operation.	B.1 Suspend operations that would cause introduction into the RCS, coolant with boron concentration less than required to meet the boron concentration of LCO 3.9.1.	Immediately
	<u>AND</u>	
	B.2 Initiate action to restore one RHR loop to operation.	Immediately
	<u>AND</u>	
	B.3 Close all containment penetrations providing direct access from containment atmosphere to outside atmosphere.	4 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.9.6.1 Verify one RHR loop is in operation and circulating reactor coolant at a flow rate of ≥ 1000 gpm.	12 hours
SR 3.9.6.2 Verify correct breaker alignment and indicated power available to the required RHR pump that is not in operation.	7 days

3.9 REFUELING OPERATIONS

3.9.7 Refueling Pool Water Level

LCO 3.9.7 Refueling pool water level shall be maintained ≥ 23 ft above the top of reactor vessel flange.

APPLICABILITY: During movement of irradiated fuel assemblies within containment.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Refueling pool water level not within limit.	A.1 Suspend movement of irradiated fuel assemblies within containment.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.9.7.1 Verify refueling pool water level is ≥ 23 ft above the top of reactor vessel flange.	24 hours