North Atlantic

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The Northeast Utilities System

October 14, 2002

Docket No. 50-443

NYN-02096

United States Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555-001

Seabrook Station

Amendment to North Atlantic Letter NYN-02059,
"Correction to Modification to License Amendment Request 01-06,
Changes To The Technical Specifications On Refueling Operations"

References:

1) North Atlantic Letter NYN-02059, Modification to License Amendment Request 01-06, "Changes To The Technical Specifications On Refueling Operations," dated June 24, 2002, Ted C. Feigenbaum to the Document Control Desk.

2) North Atlantic Letter NYN-01051, License Amendment Request 01-06, "Changes To The Technical Specifications On Refueling Operations" dated August 9, 2001, Ted C. Feigenbaum to the Document Control Desk.

North Atlantic Energy Service Corporation (North Atlantic) has enclosed herein an amended version of docketed letter NYN-02059, pursuant to the requirements of 10CFR50.30(b). This amended version contains the Oath and Affirmation Statement that was inadvertently omitted from NYN-02059. Therefore, this letter supersedes NYN-02059.

Should you have any questions regarding this letter, please contact Mr. James M. Peschel, Manager – Regulatory Programs, at (603) 773-7194.

Very truly yours,

NORTH ATLANTIC ENERGY SERVICE CORP.

Ted C. Feigenbaum
Executive Vice President
and Chief Nuclear Officer

A001

cc: H. J. Miller, NRC Region I Administrator
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ENCLOSURE TO NYN-02096

North Atlantic

SEABROOK STATION UNIT 1

Facility Operating License NPF-86
Docket No. 50-443

Amendment to North Atlantic Letter NYN-02059,
"Modification to License Amendment Request 01-06, Changes To The Technical Specifications On Refueling Operations"

North Atlantic Energy Service Corporation, pursuant to the requirements of 10 CFR 50.90 submits the following information related to License Amendment Request 01-06.

I, Ted C. Feigenbaum, Executive Vice President and Chief Nuclear Officer of North Atlantic Energy Service Corporation hereby affirm that the information and statements contained herein are based on facts and circumstances which are true and accurate to the best of my knowledge and belief.

Sworn and Subscribed
before me this
14th day of October, 2002

Marilyn Sullivan
Notary Public

Ted C. Feigenbaum
Executive Vice President and
Chief Nuclear Officer

MARILYN R. SULLIVAN
MY COMMISSION EXPIRES APR. 17, 2007
NOTARY PUBLIC
NEW HAMPSHIRE

SECTION		PAGE
3/4.7.2	STEAM GENERATOR PRESSURE/TEMPERATURE LIMITATION	3/4 7-11
3/4.7.3	PRIMARY COMPONENT COOLING WATER SYSTEM	3/4 7-12
3/4.7.4	SERVICE WATER SYSTEM	3/4 7-13
3/4.7.5	ULTIMATE HEAT SINK (THIS SPECIFICATION NUMBER IS NOT USED)	3/4 7-14
3/4.7.6	CONTROL ROOM SUBSYSTEM	3/4 7-16
	Emergency Makeup Air and Filtration	3/4 7-16
	Air Conditioning	3/4 7-18a
3/4.7.7	SNUBBERS	3/4 7-19
3/4.7.8	SEALED SOURCE CONTAMINATION	3/4 7-20
3/4.7.9	(THIS SPECIFICATION NUMBER IS NOT USED)	3/4 7-22
3/4.7.10	(THIS SPECIFICATION NUMBER IS NOT USED)	3/4 7-23
TABLE 3.7-3	(THIS TABLE NUMBER IS NOT USED)	3/4 7-24
3/4.8 ELECTRICAL POWER SYSTEMS		
3/4.8.1	A.C. SOURCES	
	Operating	3/4 8-1
TABLE 4.8-1	(THIS TABLE NUMBER IS NOT USED)	3/4 8-10
	Shutdown	3/4 8-11
3/4.8.2	D.C. SOURCES	
	Operating	3/4 8-12
TABLE 4.8-2	BATTERY SURVEILLANCE REQUIREMENTS	3/4 8-14
	Shutdown	3/4 8-15
3/4.8.3	ONSITE POWER DISTRIBUTION	
	Operating	3/4 8-16
	Shutdown	3/4 8-18
	Trip Circuit for Inverter I-2A	3/4 8-19
3/4.8.4	ELECTRICAL EQUIPMENT PROTECTIVE DEVICES	
	A.C. Circuits Inside Primary Containment	3/4 8-20
	Containment Penetration Conductor Overcurrent Protective Devices and Protective Devices for Class 1E Power Sources Connected to Non-Class 1E Circuits	3/4 8-21
	Motor-Operated Valves Thermal Overload Protection	3/4 8-24
3/4.9 REFUELING OPERATIONS		
3/4.9.1	BORON CONCENTRATION	3/4 9-1
3/4.9.2	INSTRUMENTATION	3/4 9-2
3/4.9.3	DECAY TIME	3/4 9-3

REINSTATED

SECTION		PAGE
3/4.9.4	CONTAINMENT BUILDING PENETRATIONS	3/4 9-4
3/4.9.5	(THIS SPECIFICATION NUMBER IS NOT USED)	3/4 9-5
3/4.9.6	(THIS SPECIFICATION NUMBER IS NOT USED)	3/4 9-6
3/4.9.7	(THIS SPECIFICATION NUMBER IS NOT USED)	3/4 9-7
3/4.9.8	RESIDUAL HEAT REMOVAL AND COOLANT CIRCULATION	
	High Water Level	3/4 9-8
	Low Water Level	3/4 9-9
3/4 9.9	~~CONTAINMENT PURGE AND EXHAUST ISOLATION SYSTEM~~ (THIS SPECIFICATION NUMBER IS NOT USED)	3/4 9-10
3/4 9.10	WATER LEVEL - REACTOR VESSEL	3/4 9-11
3/4 9.11	WATER LEVEL - STORAGE POOL	3/4 9-12
3/4 9.12	FUEL STORAGE BUILDING EMERGENCY AIR CLEANING SYSTEM	3/4 9-13
3/4 9.13	SPENT FUEL ASSEMBLY STORAGE	3/4 9-16
FIGURE 3.9-1	FUEL ASSEMBLY BURNUP VS. INITIAL ENRICHMENT FOR SPENT FUEL ASSEMBLY STORAGE	3/4 9-17
3/4.9.14	NEW FUEL ASSEMBLY STORAGE	3/4 9-18
3/4.10	SPECIAL TEST EXCEPTIONS	
3/4.10.1	SHUTDOWN MARGIN	3/4 10-1
3/4.10.2	GROUP HEIGHT, INSERTION, AND POWER DISTRIBUTION LIMITS	3/4 10-2
3/4.10.3	PHYSICS TESTS	3/4 10-3
3/4.10.4	REACTOR COOLANT LOOPS	3/4 10-4
3/4.10.5	POSITION INDICATION SYSTEM- SHUTDOWN	3/4 10-5
3/4.11	RADIOACTIVE EFFLUENTS	
3/4.11.1	LIQUID EFFLUENTS	
	(THIS SPECIFICATION NUMBER IS NOT USED)	3/4 11-1
	(THIS SPECIFICATION NUMBER IS NOT USED)	3/4 11-2
	(THIS SPECIFICATION NUMBER IS NOT USED)	3/4 11-3
	Liquid Holdup Tanks	3/4 11-4
3/4.11.2	GASEOUS EFFLUENTS	
	(THIS SPECIFICATION NUMBER IS NOT USED)	3/4 11-5
	(THIS SPECIFICATION NUMBER IS NOT USED)	3/4 11-6
	(THIS SPECIFICATION NUMBER IS NOT USED)	3/4 11-7
	(THIS SPECIFICATION NUMBER IS NOT USED)	3/4 11-8
	Explosive Gas Mixture - System	3/4 11-9
3/4.11.3	(THIS SPECIFICATION NUMBER IS NOT USED)	3/4 11-10
3/4.11.4	(THIS SPECIFICATION NUMBER IS NOT USED)	3/4 11-12
3/4.12	RADIOLOGICAL ENVIRONMENTAL MONITORING	
3/4.12.1	(THIS SPECIFICATION NUMBER IS NOT USED)	3/4 12-1

BASES

SECTION		PAGE
TABLE B 3/4.4-1	REACTOR VESSEL TOUGHNESS	B 3/4 4-11
3/4.4.10	STRUCTURAL INTEGRITY	B 3/4 4-16
3/4.4.11	REACTOR COOLANT SYSTEM VENTS	B 3/4 4-16
3/4.5 EMERGENCY CORE COOLING SYSTEMS		
3/4.5.1	ACCUMULATORS	B 3/4 5-1
3/4.5.2 and 3/4.5.3	ECCS SUBSYSTEMS	B 3/4 5-1
3/4.5.4	REFUELING WATER STORAGE TANK	B 3/4 5-2
3/4.6 CONTAINMENT SYSTEMS		
3/4.6.1	PRIMARY CONTAINMENT	B 3/4 6-1
3/4.6.2	DEPRESSURIZATION AND COOLING SYSTEMS	B 3/4 6-3
3/4.6.3	CONTAINMENT ISOLATION VALVES	B 3/4 6-3
3/4.6.4	COMBUSTIBLE GAS CONTROL	B 3/4 6-3
3/4.6.5	CONTAINMENT ENCLOSURE BUILDING	B 3/4 6-4
3/4.7 PLANT SYSTEMS		
3/4.7.1	TURBINE CYCLE	B 3/4 7-1
3/4.7.2	STEAM GENERATOR PRESSURE/TEMPERATURE LIMITATION	B 3/4 7-3
3/4.7.3	PRIMARY COMPONENT COOLING WATER SYSTEM	B 3/4 7-3
3/4.7.4	SERVICE WATER SYSTEM	B 3/4 7-3
3/4.7.5	ULTIMATE HEAT SINK (THIS SPECIFICATION NUMBER IS NOT USED)	B 3/4 7-3a
3/4.7.6	CONTROL ROOM SUBSYSTEMS	B 3/4 7-4
3/4.7.7	SNUBBERS	B 3/4 7-4
3/4.7.8	SEALED SOURCE CONTAMINATION	B 3/4 7-5
3/4.7.9	(THIS SPECIFICATION NUMBER IS NOT USED)	B 3/4 7-5
3/4.7.10	(THIS SPECIFICATION NUMBER IS NOT USED)	B 3/4 7-5
3/4.8 ELECTRICAL POWER SYSTEMS		
3/4.8.1, 3/4.8.2, and 3/4.8.3	A.C. SOURCES, D.C. SOURCES, and ONSITE POWER DISTRIBUTION	B 3/4 8-1
3/4.8.4	ELECTRICAL EQUIPMENT PROTECTIVE DEVICES	B 3/4 8-3
3/4.9 REFUELING OPERATIONS		
3/4.9.1	BORON CONCENTRATION	B 3/4 9-1
3/4.9.2	INSTRUMENTATION	B 3/4 9-1
3/4.9.3	DECAY TIME	B 3/4 9-1
3/4.9.4	CONTAINMENT BUILDING PENETRATIONS	B 3/4 9-1
3/4.9.5	COMMUNICATIONS	B 3/4 9-1
3/4.9.6	REFUELING MACHINE	B 3/4 9-1
3/4.9.7	CRANE TRAVEL - SPENT FUEL STORAGE BUILDING	B 3/4 9-2

Reinstated

BASES

SECTION		PAGE
3/4.9.8	RESIDUAL HEAT REMOVAL AND COOLANT CIRCULATION	B 3/4 9-2
3/4.9.9	~~CONTAINMENT PURGE AND EXHAUST ISOLATION SYSTEM~~ (THIS SPECIFICATION NUMBER IS NOT USED)	B 3/4 9-2
3/4.9.10 and 3/4.9.11	WATER LEVEL - REACTOR VESSEL and STORAGE POOL	B 3/4 9-2
3/4.9.12	FUEL STORAGE BUILDING EMERGENCY AIR CLEANING SYSTEM	B 3/4 9-2
3/4.9.13	SPENT FUEL ASSEMBLY STORAGE	B 3/4 9-3
3/4.9.14	NEW FUEL ASSEMBLY STORAGE	B 3/4 9-3
3/4.10 SPECIAL TEST EXCEPTIONS		
3/4.10.1	SHUTDOWN MARGIN	B 3/4 10-1
3/4.10.2	GROUP HEIGHT, INSERTION, AND POWER DISTRIBUTION LIMITS	B 3/4 10-1
3/4.10.3	PHYSICS TESTS	B 3/4 10-1
3/4.10.4	REACTOR COOLANT LOOPS	B 3/4 10-1
3/4.10.5	POSITION INDICATION SYSTEM - SHUTDOWN	B 3/4 10-1
3/4.10.6	REACTOR COOLANT LOOPS	B 3/4 10-1
3/4.11 RADIOACTIVE EFFLUENTS		
3/4.11.1	(THIS SPECIFICATION NUMBER IS NOT USED)	B 3/4 11-1
3/4.11.2	GASEOUS EFFLUENTS	B 3/4 11-2
3/4.11.3	(THIS SPECIFICATION NUMBER IS NOT USED)	B 3/4 11-5
3/4.11.4	(THIS SPECIFICATION NUMBER IS NOT USED)	B 3/4 11-5
3/4.12 RADIOLOGICAL ENVIRONMENTAL MONITORING		
3/4.12.1	(THIS SPECIFICATION NUMBER IS NOT USED)	B 3/4 12-1
3/4.12.2	(THIS SPECIFICATION NUMBER IS NOT USED)	B 3/4 12-1
3/4.12.3	(THIS SPECIFICATION NUMBER IS NOT USED)	B 3/4 12-2
5.0	DESIGN FEATURES	
5.1 SITE		
5.1.1	EXCLUSION AREA	5-1
5.1.2	LOW POPULATION ZONE	5-1
5.1.3	MAPS DEFINING UNRESTRICTED AREAS AND SITE BOUNDARY FOR RADIOACTIVE GASEOUS AND LIQUID EFFLUENTS	5-1
FIGURE 5.1-1	SITE AND EXCLUSION AREA BOUNDARY	5-3
FIGURE 5.1-2	LOW POPULATION ZONE	5-5
FIGURE 5.1-3	LIQUID EFFLUENT DISCHARGE LOCATION	5-7
5.2 CONTAINMENT		
5.2.1	CONFIGURATION	5-1
5.2.2	DESIGN PRESSURE AND TEMPERATURE	5-9

3/4.9.4 CONTAINMENT BUILDING PENETRATIONS

LIMITING CONDITION FOR OPERATION

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

a. The equipment door closed and held in place by a minimum of four bolts,

b. A minimum of one door in each airlock is closed, however both doors of one personnel airlock may be open if:

1) One personnel airlock door is capable of being closed, and

2) A designated individual is available outside the personnel airlock to close the door.

c. Each penetration providing direct access from the containment atmosphere to the outside atmosphere shall be either:

1) Closed by a manual or automatic isolation valve, blind flange, or equivalent; or

2) Be capable of being closed by an OPERABLE automatic containment purge and exhaust isolation ~~valves~~ SYSTEMS or

3) Be capable of being closed by a designated individual available at the penetration. (*)

APPLICABILITY: During CORE ALTERATIONS or movement of irradiated fuel within the containment.

ACTION:

With the requirements of the above specification not satisfied, immediately suspend all operations involving CORE ALTERATIONS or movement of irradiated fuel in the containment building.

SURVEILLANCE REQUIREMENTS

4.9.4 Each of the above required containment building penetrations shall be determined to be either in its required condition or capable of being closed by an OPERABLE automatic containment purge and exhaust isolation valve within 100 hours prior to the start of and at least once per 7 days during CORE ALTERATIONS or movement of irradiated fuel in the containment building by:

a. Verifying the penetrations are in their required condition, or

b. Testing the containment purge and exhaust isolation valves per the applicable portions of Specification 4.6.3.2.

INSERT (A)

INSERT A

4.9.4 For the above required containment building penetrations:

a. Determine that each of the above required containment building penetrations shall be in its required condition within 100 hours prior to the start of, and at least once per 7 days during, CORE ALTERATIONS or movement of irradiated fuel in the containment building, and

b. Demonstrate that the Containment Purge and Exhaust Isolation System is OPERABLE at least once every 18 months and within 10 days prior to the start of CORE ALTERATIONS or movement of irradiated fuel in the containment building by verifying that containment purge and exhaust isolation occurs on manual initiation and on a High Radiation test signal from each of the manipulator crane radiation area monitoring instrumentation channels.**

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* A designated individual shall not be used for manual isolation of valves CAP-V1, CAP-V2, CAP-V3, and/or CAP-V4.

** Not required for those valves complying with Specification 3.9.4.c.1 or Specification 3.9.4.c.3.

(THIS SPECIFICATION NUMBER IS NOT USED)

REFUELING OPERATIONS

3/4.9.9 CONTAINMENT PURGE AND EXHAUST ISOLATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.9.9 The Containment Purge and Exhaust Isolation System shall be OPERABLE.

APPLICABILITY: During CORE ALTERATIONS or movement of irradiated fuel within the containment.

ACTION:

a. With the Containment Purge and Exhaust Isolation System inoperable, close each of the purge and exhaust penetrations providing direct access from the containment atmosphere to the outside atmosphere.

b. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.9.9 The Containment Purge and Exhaust Isolation System shall be demonstrated OPERABLE within 100 hours prior to the start of and at least once per 7 days during CORE ALTERATIONS by verifying that containment purge and exhaust isolation occurs on manual initiation and on a High Radiation test signal from each of the manipulator crane area radiation monitoring instrumentation channels.

AMENDMENT NO. 91

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3/4.9.2 INSTRUMENTATION

The OPERABILITY of the Source Range Neutron Flux Monitors ensures that redundant monitoring capability is available to detect changes in the reactivity condition of the core.

3/4.9.3 DECAY TIME ← REINSTATED

The minimum requirement for reactor subcriticality prior to movement of irradiated fuel assemblies in the reactor vessel ensures that sufficient time has elapsed to allow the radioactive decay of the short-lived fission products. This decay time is consistent with the assumptions used in the safety analyses.

3/4.9.4 CONTAINMENT BUILDING PENETRATIONS

The Limiting Condition for Operation (LCO) limits the consequences of a fuel handling accident in containment by limiting the potential escape paths for fission product radioactivity released within containment. The LCO requires any penetration providing direct access from the containment atmosphere to the outside atmosphere to be closed except for the OPERABLE containment purge and exhaust penetrations, the approved alternate closure methods and the containment personnel airlock.

For the approved alternate closure methods, the LCO requires that a designated individual must be available to close or direct the remote closure of the penetration in the event of a fuel handling accident. "Available" means stationed at the penetration or performing activities controlled by a procedure on equipment associated with the penetration. ← INSERT B

For the personnel airlocks (containment or equipment hatch), the LCO ensures that the airlock can be closed after containment evacuation in the event of a fuel handling accident. The requirement that the airlock door is capable of being closed requires that the door can be closed and is not blocked by objects that cannot be easily and quickly removed. As an example, the use of removable protective covers for the door seals and sealing surfaces is permitted. The requirement for a designated individual located outside of the airlock area available to ~~close~~ CLOSE the door following evacuation of the containment will minimize the release of radioactive material.

The fuel handling accident analysis inside containment assumes both of the personnel airlock doors are open and an additional 12" diameter penetration (or equivalent area) is open. The analysis is bounded by these assumptions since all of the available activity is assumed to be released instantaneously from the containment to the atmosphere.

H

INSERT PARAGRAPH FROM PG B 3/4 9-4 here.

INSERT B

The inside containment fuel handling accident analysis provides assurance that manual isolation of penetration valves up to a 12-inch diameter size, within the assumed time, can be attained with the use of a designated individual. With respect to the 36-inch diameter CAP valves, a designated individual is not allowed since manual closure would most likely exceed the assumed closure time.

(THIS SPECIFICATION NUMBER IS NOT USED)

INSERT INTO BASES 3/4.9.4 ON PAGE B 3/4 9-2A

3/4.9.9 ~~CONTAINMENT PURGE AND EXHAUST ISOLATION SYSTEM~~

THE CONTAINMENT PURGE AND EXHAUST ISOLATION SYSTEM

The OPERABILITY of ~~this system~~ ensures that the containment vent and purge penetrations will be automatically isolated upon detection of high radiation levels within the containment. The OPERABILITY of this system is required to restrict the release of radioactive material from the containment atmosphere to the environment.

3/4.9.10 and 3/4.9.11 WATER LEVEL - REACTOR VESSEL and STORAGE POOL

The restrictions on minimum water level ensure that sufficient water depth is available to remove 99% of the assumed 10% iodine gap activity released from the rupture of an irradiated fuel assembly. The minimum water depth is consistent with the assumptions of the safety analysis.

3/4.9.12 FUEL STORAGE BUILDING EMERGENCY AIR CLEANING SYSTEM

The limitations on the Fuel Storage Building Emergency Air Cleaning System ensure that all radioactive material released from an irradiated fuel assembly will be filtered through the HEPA filters and charcoal adsorber prior to discharge to the atmosphere. Operation of the system with the heaters operating for at least 10 continuous hours in a 31-day period is sufficient to reduce the buildup of moisture on the adsorbers and HEPA filters. The OPERABILITY of this system and the resulting iodine removal capacity are consistent with the assumptions of the safety analyses. ANSI N510-1980 will be used as a procedural guide for surveillance testing.

3/4.9.13 SPENT FUEL ASSEMBLY STORAGE

Restrictions on placement of fuel assemblies of certain enrichments within the Spent Fuel Pool is dictated by Figure 3.9-1. These restrictions ensure that the K_{eff} of the Spent Fuel Pool will always remain less than 0.95 assuming the pool to be flooded with unborated water. The restrictions delineated in Figure 3.9-1 and the action statement are consistent with the criticality safety analysis performed for the Spent Fuel Pool as documented in the FSAR.

3/4.9.14 NEW FUEL ASSEMBLY STORAGE

Restrictions on placement of fuel assemblies of certain enrichments within the New Fuel Storage Vault is dictated by Specification 3/4.9.14. These restrictions ensure that the K_{eff} of the New Fuel Storage Vault will always remain less than 0.95 assuming the area to be flooded with unborated water. In addition, these restrictions ensure that the K_{eff} of the New Fuel Storage Vault will always remain less than 0.98 when aqueous foam moderation is assumed. The restrictions delineated in Specification 3/4.9.14 and the action statement are consistent with the criticality safety analysis performed for the New Fuel Storage Vault as documented in the FSAR.

Revised by NRC letter dated 6/8/01

SECTION		PAGE
3/4.7.2	STEAM GENERATOR PRESSURE/TEMPERATURE LIMITATION	3/4 7-11
3/4.7.3	PRIMARY COMPONENT COOLING WATER SYSTEM	3/4 7-12
3/4.7.4	SERVICE WATER SYSTEM / ULTIMATE HEAT SINK	3/4 7-13
3/4.7.5	(THIS SPECIFICATION NUMBER IS NOT USED)	3/4 7-14
3/4.7.6	CONTROL ROOM SUBSYSTEM	3/4 7-16
	Emergency Makeup Air and Filtration	3/4 7-16
	Air Conditioning	3/4 7-18a
3/4.7.7	SNUBBERS	3/4 7-19
3/4.7.8	SEALED SOURCE CONTAMINATION	3/4 7-20
3/4.7.9	(THIS SPECIFICATION NUMBER IS NOT USED)	3/4 7-22
3/4.7.10	(THIS SPECIFICATION NUMBER IS NOT USED)	3/4 7-23
TABLE 3.7-3	(THIS TABLE NUMBER IS NOT USED)	3/4 7-24

3/4.8 ELECTRICAL POWER SYSTEMS

3/4.8.1	A.C. SOURCES	
	Operating	3/4 8-1
TABLE 4.8-1	(THIS TABLE NUMBER IS NOT USED)	3/4 8-10
	Shutdown	3/4 8-11
3/4.8.2	D.C. SOURCES	
	Operating	3/4 8-12
TABLE 4.8-2	BATTERY SURVEILLANCE REQUIREMENTS	3/4 8-14
	Shutdown	3/4 8-15
3/4.8.3	ONSITE POWER DISTRIBUTION	
	Operating	3/4 8-16
	Shutdown	3/4 8-18
	Trip Circuit for Inverter I-2A	3/4 8-19
3/4.8.4	ELECTRICAL EQUIPMENT PROTECTIVE DEVICES	
	A.C. Circuits Inside Primary Containment	3/4 8-20
	Containment Penetration Conductor Overcurrent Protective Devices and Protective Devices for Class 1E Power Sources Connected to Non-Class 1E Circuits	3/4 8-21
	Motor-Operated Valves Thermal Overload Protection	3/4 8-24

3/4.9 REFUELING OPERATIONS

3/4.9.1	BORON CONCENTRATION	3/4 9-1
3/4.9.2	INSTRUMENTATION	3/4 9-2
3/4.9.3	DECAY TIME	3/4 9-3

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

SECTION		PAGE
3/4.9.4	CONTAINMENT BUILDING PENETRATIONS	3/4 9-4
3/4.9.5	(THIS SPECIFICATION NUMBER IS NOT USED)	3/4 9-5
3/4.9.6	(THIS SPECIFICATION NUMBER IS NOT USED)	3/4 9-6
3/4.9.7	(THIS SPECIFICATION NUMBER IS NOT USED)	3/4 9-7
3/4.9.8	RESIDUAL HEAT REMOVAL AND COOLANT CIRCULATION	
	High Water Level	3/4 9-8
	Low Water Level	3/4 9-9
3/4 9.9	(THIS SPECIFICATION NUMBER IS NOT USED)	3/4 9-10
3/4 9.10	WATER LEVEL - REACTOR VESSEL	3/4 9-11
3/4 9.11	WATER LEVEL - STORAGE POOL	3/4 9-12
3/4 9.12	FUEL STORAGE BUILDING EMERGENCY AIR CLEANING SYSTEM	3/4 9-13
3/4 9.13	SPENT FUEL ASSEMBLY STORAGE	3/4 9-16
FIGURE 3.9-1	FUEL ASSEMBLY BURNUP VS. INITIAL ENRICHMENT FOR SPENT FUEL ASSEMBLY STORAGE	3/4 9-17
3/4.9.14	NEW FUEL ASSEMBLY STORAGE	3/4 9-18
3/4.10	SPECIAL TEST EXCEPTIONS	
3/4.10.1	SHUTDOWN MARGIN	3/4 10-1
3/4.10.2	GROUP HEIGHT, INSERTION, AND POWER DISTRIBUTION LIMITS	3/4 10-2
3/4.10.3	PHYSICS TESTS	3/4 10-3
3/4.10.4	REACTOR COOLANT LOOPS	3/4 10-4
3/4.10.5	POSITION INDICATION SYSTEM- SHUTDOWN	3/4 10-5
3/4.11	RADIOACTIVE EFFLUENTS	
3/4.11.1	LIQUID EFFLUENTS	
	(THIS SPECIFICATION NUMBER IS NOT USED)	3/4 11-1
	(THIS SPECIFICATION NUMBER IS NOT USED)	3/4 11-2
	(THIS SPECIFICATION NUMBER IS NOT USED)	3/4 11-3
	Liquid Holdup Tanks	3/4 11-4
3/4.11.2	GASEOUS EFFLUENTS	
	(THIS SPECIFICATION NUMBER IS NOT USED)	3/4 11-5
	(THIS SPECIFICATION NUMBER IS NOT USED)	3/4 11-6
	(THIS SPECIFICATION NUMBER IS NOT USED)	3/4 11-7
	(THIS SPECIFICATION NUMBER IS NOT USED)	3/4 11-8
	Explosive Gas Mixture - System	3/4 11-9
3/4.11.3	(THIS SPECIFICATION NUMBER IS NOT USED)	3/4 11-10
3/4.11.4	(THIS SPECIFICATION NUMBER IS NOT USED)	3/4 11-12
3/4.12	RADIOLOGICAL ENVIRONMENTAL MONITORING	
3/4.12.1	(THIS SPECIFICATION NUMBER IS NOT USED)	3/4 12-1

SECTION PAGE

TABLE B 3/4.4-1 REACTOR VESSEL TOUGHNESS ..... B 3/4 4-11

3/4.4.10 STRUCTURAL INTEGRITY ..... B 3/4 4-16
3/4.4.11 REACTOR COOLANT SYSTEM VENTS ..... B 3/4 4-16

3/4.5 EMERGENCY CORE COOLING SYSTEMS

3/4.5.1 ACCUMULATORS ..... B 3/4 5-1
3/4.5.2 and 3/4.5.3 ECCS SUBSYSTEMS ..... B 3/4 5-1
3/4.5.4 REFUELING WATER STORAGE TANK ..... B 3/4 5-2

3/4.6 CONTAINMENT SYSTEMS

3/4.6.1 PRIMARY CONTAINMENT ..... B 3/4 6-1
3/4.6.2 DEPRESSURIZATION AND COOLING SYSTEMS ..... B 3/4 6-3
3/4.6.3 CONTAINMENT ISOLATION VALVES ..... B 3/4 6-3
3/4.6.4 COMBUSTIBLE GAS CONTROL ..... B 3/4 6-3
3/4.6.5 CONTAINMENT ENCLOSURE BUILDING ..... B 3/4 6-4

3/4.7 PLANT SYSTEMS

3/4.7.1 TURBINE CYCLE ..... B 3/4 7-1
3/4.7.2 STEAM GENERATOR PRESSURE/TEMPERATURE LIMITATION ..... B 3/4 7-3
3/4.7.3 PRIMARY COMPONENT COOLING WATER SYSTEM ..... B 3/4 7-3
3/4.7.4 SERVICE WATER SYSTEM / ULTIMATE HEAT SINK ..... B 3/4 7-3
3/4.7.5 (THIS SPECIFICATION NUMBER IS NOT USED) ..... B 3/4 7-3A
3/4.7.6 CONTROL ROOM SUBSYSTEMS ..... B 3/4 7-4
3/4.7.7 SNUBBERS ..... B 3/4 7-4
3/4.7.8 SEALED SOURCE CONTAMINATION ..... B 3/4 7-5
3/4.7.9 (THIS SPECIFICATION NUMBER IS NOT USED) ..... B 3/4 7-5
3/4.7.10 (THIS SPECIFICATION NUMBER IS NOT USED) ..... B 3/4 7-5

3/4.8 ELECTRICAL POWER SYSTEMS

3/4.8.1, 3/4.8.2, and 3/4.8.3 A.C. SOURCES, D.C. SOURCES, and ONSITE POWER DISTRIBUTION ..... B 3/4 8-1
3/4.8.4 ELECTRICAL EQUIPMENT PROTECTIVE DEVICES ..... B 3/4 8-3

3/4.9 REFUELING OPERATIONS

3/4.9.1 BORON CONCENTRATION ..... B 3/4 9-1
3/4.9.2 INSTRUMENTATION ..... B 3/4 9-1
3/4.9.3 DECAY TIME ..... B 3/4 9-1
3/4.9.4 (THIS SPECIFICATION NUMBER IS NOT USED) ..... B 3/4 9-1
3/4.9.5 (THIS SPECIFICATION NUMBER IS NOT USED) ..... B 3/4 9-1
3/4.9.6 (THIS SPECIFICATION NUMBER IS NOT USED) ..... B 3/4 9-1
3/4.9.7 CRANE TRAVEL - SPENT FUEL STORAGE BUILDING ..... B 3/4 9-2

BASES

SECTION		PAGE
3/4.9.8	RESIDUAL HEAT REMOVAL AND COOLANT CIRCULATION	B 3/4 9-2
3/4.9.9	(THIS SPECIFICATION NUMBER IS NOT USED)	B 3/4 9-2
3/4.9.10 and 3/4.9.11	WATER LEVEL - REACTOR VESSEL and STORAGE POOL	B 3/4 9-2
3/4.9.12	FUEL STORAGE BUILDING EMERGENCY AIR CLEANING SYSTEM	B 3/4 9-2
3/4.9.13	SPENT FUEL ASSEMBLY STORAGE	B 3/4 9-3
3/4.9.14	NEW FUEL ASSEMBLY STORAGE	B 3/4 9-3
3/4.10 SPECIAL TEST EXCEPTIONS		
3/4.10.1	SHUTDOWN MARGIN	B 3/4 10-1
3/4.10.2	GROUP HEIGHT, INSERTION, AND POWER DISTRIBUTION LIMITS	B 3/4 10-1
3/4.10.3	PHYSICS TESTS	B 3/4 10-1
3/4.10.4	REACTOR COOLANT LOOPS	B 3/4 10-1
3/4.10.5	POSITION INDICATION SYSTEM - SHUTDOWN	B 3/4 10-1
3/4.10.6	REACTOR COOLANT LOOPS	B 3/4 10-1
3/4.11 RADIOACTIVE EFFLUENTS		
3/4.11.1	(THIS SPECIFICATION NUMBER IS NOT USED)	B 3/4 11-1
3/4.11.2	GASEOUS EFFLUENTS	B 3/4 11-2
3/4.11.3	(THIS SPECIFICATION NUMBER IS NOT USED)	B 3/4 11-5
3/4.11.4	(THIS SPECIFICATION NUMBER IS NOT USED)	B 3/4 11-5
3/4.12 RADIOLOGICAL ENVIRONMENTAL MONITORING		
3/4.12.1	(THIS SPECIFICATION NUMBER IS NOT USED)	B 3/4 12-1
3/4.12.2	(THIS SPECIFICATION NUMBER IS NOT USED)	B 3/4 12-1
3/4.12.3	(THIS SPECIFICATION NUMBER IS NOT USED)	B 3/4 12-2
5.0	DESIGN FEATURES	
5.1 SITE		
5.1.1	EXCLUSION AREA	5-1
5.1.2	LOW POPULATION ZONE	5-1
5.1.3	MAPS DEFINING UNRESTRICTED AREAS AND SITE BOUNDARY FOR RADIOACTIVE GASEOUS AND LIQUID EFFLUENTS	5-1
FIGURE 5.1-1	SITE AND EXCLUSION AREA BOUNDARY	5-3
FIGURE 5.1-2	LOW POPULATION ZONE	5-5
FIGURE 5.1-3	LIQUID EFFLUENT DISCHARGE LOCATION	5-7
5.2 CONTAINMENT		
5.2.1	CONFIGURATION	5-1
5.2.2	DESIGN PRESSURE AND TEMPERATURE	5-9

REFUELING OPERATIONS

3/4.9.4 CONTAINMENT BUILDING PENETRATIONS

LIMITING CONDITION FOR OPRATION

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

a. The equipment door closed and held in place by a minimum of four bolts,

b. A minimum of one door in each airlock is closed, however both doors of one personnel airlock may be open if:

1) One personnel airlock door is capable of being closed, and

2) A designated individual is available outside the personnel airlock to close the door.

c. Each penetration providing direct access from the containment atmosphere to the outside atmosphere shall be either:

1) Closed by a manual or automatic isolation valve, blind flange, or equivalent; or

2) Be capable of being closed by an OPERABLE automatic Containment Purge and Exhaust Isolation System; or

3) Be capable of being closed by a designated individual available at the penetration.*

APPLICABILITY: During CORE ALTERATIONS or movement of irradiated fuel within the containment.

ACTION:

With the requirements of the above specification not satisfied, immediately suspend all operations involving CORE ALTERATIONS or movement of irradiated fuel in the containment building.

* A designated individual shall not be used for manual isolation of valves CAP-V1, CAP-V2, CAP-V3, and/or CAP-V4.

3/4.9.4 CONTAINMENT BUILDING PENETRATIONS

SURVEILLANCE REQUIREMENTS

4.9.4 For the above required containment building penetrations:

a. Determine that each of the above required containment building penetrations shall be in its required condition within 100 hours prior to the start of, and at least once per 7 days during CORE ALTERATIONS or movement of irradiated fuel in the containment building, and

b. Demonstrate that the Containment Purge and Exhaust Isolation System is OPERABLE at least once every 18 months and within 10 days prior to the start of CORE ALTERATIONS or movement of irradiated fuel in the containment building by verifying that containment purge and exhaust isolation occurs on manual initiation and on a High Radiation test signal from each of the manipulator crane radiation area monitoring instrumentation channels.**

** Not required for those valves complying with Specification 3.9.4.c.1 or Specification 3.9.4.c.3.

3/4.9.9 (This specification number is not used.)

3/4.9.2 INSTRUMENTATION

The OPERABILITY of the Source Range Neutron Flux Monitors ensures that redundant monitoring capability is available to detect changes in the reactivity condition of the core.

3/4.9.3 DECAY TIME

The minimum requirement for reactor subcriticality prior to movement of irradiated fuel assemblies in the reactor vessel ensures that sufficient time has elapsed to allow the radioactive decay of the short-lived fission products. This decay time is consistent with the assumptions used in the safety analyses.

3/4.9.4 CONTAINMENT BUILDING PENETRATIONS

The Limiting Condition for Operation (LCO) limits the consequences of a fuel handling accident in containment by limiting the potential escape paths for fission product radioactivity released within containment. The LCO requires any penetration providing direct access from the containment atmosphere to the outside atmosphere to be closed except for the OPERABLE containment purge and exhaust penetrations, the approved alternate closure methods and the containment personnel airlock.

For the approved alternate closure methods, the LCO requires that a designated individual must be available to close or direct the remote closure of the penetration in the event of a fuel handling accident. "Available" means stationed at the penetration or performing activities controlled by a procedure on equipment associated with the penetration. The inside containment fuel handling accident analysis provides assurance that manual isolation of penetration valves up to a 12-inch diameter size, within the assumed time, can be attained with the use of a designated individual. With respect to the 36-inch diameter CAP valves, a designated individual is not allowed since manual closure would most likely exceed the assumed closure time.

For the personnel airlocks (containment or equipment hatch), the LCO ensures that the airlock can be closed after containment evacuation in the event of a fuel handling accident. The requirement that the airlock door is capable of being closed requires that the door can be closed and is not blocked by objects that cannot be easily and quickly removed. As an example, the use of removable protective covers for the door seals and sealing surfaces is permitted. The requirement for a designated individual located outside of the airlock area available to close the door following evacuation of the containment will minimize the release of radioactive material.

The fuel handling accident analysis inside containment assumes both of the personnel airlock doors are open and an additional 12" diameter penetration (or equivalent area) is open. The analysis is bounded by these assumptions since all of the available activity is released within a 2 hour period.

The OPERABILITY of the Containment Purge and Exhaust Isolation System ensures that the containment vent and purge penetrations will be automatically isolated upon detection of high radiation levels within the containment. The OPERABILITY of this system is required to restrict the release of radioactive material from the containment atmosphere to the environment.

3/4.9.9 (THIS SPECIFICATION NUMBER IS NOT USED.)

3/4.9.10 and 3/4.9.11 WATER LEVEL - REACTOR VESSEL and STORAGE POOL

The restrictions on minimum water level ensure that sufficient water depth is available to remove 99% of the assumed 10% iodine gap activity released from the rupture of an irradiated fuel assembly. The minimum water depth is consistent with the assumptions of the safety analysis.

3/4.9.12 FUEL STORAGE BUILDING EMERGENCY AIR CLEANING SYSTEM

The limitations on the Fuel Storage Building Emergency Air Cleaning System ensure that all radioactive material released from an irradiated fuel assembly will be filtered through the HEPA filters and charcoal adsorber prior to discharge to the atmosphere. Operation of the system with the heaters operating for at least 10 continuous hours in a 31-day period is sufficient to reduce the buildup of moisture on the adsorbers and HEPA filters. The OPERABILITY of this system and the resulting iodine removal capacity are consistent with the assumptions of the safety analyses. ANSI N510-1980 will be used as a procedural guide for surveillance testing.

3/4.9.13 SPENT FUEL ASSEMBLY STORAGE

Restrictions on placement of fuel assemblies of certain enrichments within the Spent Fuel Pool is dictated by Figure 3.9-1. These restrictions ensure that the K_{eff} of the Spent Fuel Pool will always remain less than O.95
assuming the pool to be flooded with unborated water. The restrictions delineated in Figure 3.9-1 and the action statement are consistent with the criticality safety analysis performed for the Spent Fuel Pool as documented in the FSAR.

3/4.9.14 NEW FUEL ASSEMBLY STORAGE

Restrictions on placement of fuel assemblies of certain enrichments within the New Fuel Storage Vault is dictated by Specification 3/4.9.14. These restrictions ensure that the K_{eff} of the New Fuel Storage Vault will always remain less than 0.95 assuming the area to be flooded with unborated water. In addition, these restrictions ensure that the K_{eff} of the New Fuel Storage Vault will always remain less than 0.98 when aqueous foam moderation is assumed. The restrictions delineated in Specification 3/4.9.14 and the action statement are consistent with the criticality safety analysis performed for the New Fuel Storage Vault as documented in the FSAR.