Enclosure 3

Joseph M. Farley Nuclear Plant
Control Room, Penetration Room, and Containment Purge Filtration Systems
and Radiation Monitoring Instrumentation
Technical Specification Changes

Unit 1 Technical Specification Pages

FNP Unit 1

Technical Specifications

Control Room, Penetration Room, and Containment Purge Filtration Systems
and Radiation Monitoring Instrumentation

Changed Pages

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XIV	Replace
XV	Replace
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BASES

TABLE 3.3-6

RADIATION MONITORING INSTRUMENTATION

	INSTRUMENT	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ALARM/TRIP SETPOINT	MEASUREMENT RANGE	ACTION
1.	AREA MONITORS					
	a. Fuel Storage Pool Area (R-5)	1	(a)	$\leq$ 15 mR/hr	10^{-1}-10^{4} mR/hr	23
	b. Containment Area(R-27A&B)	2	1,2,3,4	N/A	1 - 10^{7} R/hr	27a
2.	PROCESS MONITORS					
	a. Fuel Storage Pool Area Gaseous Activity- Ventilation System Isolation (R-25A&B)	1	(b)	$\leq 8.73 \times 10^{-3}$ μCi/cc(c)	10-10^{6} cpm	25
		2	(g,i)	$\leq 8.73 \times 10^{-3}$ μCi/cc(c)		25
	b. Containment					
	i. Gaseous Activity- a)Purge & Exhaust Isolation (R-24A&B)	1	1,2,3,4,5,6 (d)	$\leq 2.27 \times 10^{-2}$ μCi/cc(c)	10-10^{6} cpm	26
		2	6 (d,h,i)	$\leq 2.27 \times 10^{-2}$ μCi/cc(c)		26
		1	1,2,3,4,5,6 (e)	$\leq 4.54 \times 10^{-3}$ μCi/cc(c)		26
		2	6 (e,h,i)	$\leq 4.54 \times 10^{-3}$ μCi/cc(c)		26
		1	1,2,3,4,5,6 (f)	$\leq 2.27 \times 10^{-3}$ μCi/cc(c)		26
		2	6 (f,h,i)	$\leq 2.27 \times 10^{-3}$ μCi/cc(c)		26
	b)RCS Leakage Detection (R-12)	1	1,2,3 & 4	N/A	10-10^{6} cpm	24
	ii.Particulate Activity RCS Leakage Detection (R-11)	1	1,2,3 & 4	N/A	10-10^{6} cpm	24
	c. Control Room Isolation (R34A&B)	1	1,2,3,4	$\leq$ 800 cpm	10-10^{6} cpm	27
		2	1,2,3,4,6(g,h,i)	$\leq$ 800 cpm		27

TABLE 3.3-6 (Continued)

ACTION STATEMENTS

ACTION 23 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, perform area surveys of the monitored area with portable monitoring instrumentation at least once per 24 hours.

ACTION 24 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.4.7.1.

ACTION 25 - With one channel inoperable return both channels to OPERABLE status within 7 days or suspend all movement of fuel and crane operation with loads over the spent fuel in the pool. With no channels OPERABLE, suspend all movement of fuel and crane operation with loads over the spent fuel in the pool until at least one channel is restored to OPERABLE status.

ACTION 26 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.9.9.

ACTION 27 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, within 1 hour initiate and maintain operation of the control room emergency ventilation system in the emergency recirculation mode of operation.

ACTION 27a - With the number of OPERABLE Channels less than required by the Minimum Channels OPERABLE requirement, initiate the preplanned alternate method of monitoring the appropriate parameter(s), within 72 hours, and:

1) Either restore the inoperable Channel(s) to OPERABLE status within 7 days, or

2) Prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within the next 14 days following the event outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.

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a. With fuel in storage pool.
b. With irradiated fuel in the storage pool.
c. Above background with no flow.
d. With mini-purge in operation.
e. With slow speed main purge in operation.
f. With fast speed main purge in operation.
g. During movement of irradiated fuel or movement of heavy loads over irradiated fuel in the fuel storage pool area.
h. During movement of irradiated fuel or movement of heavy loads over irradiated fuel in containment.
i. The normal or emergency power source may be inoperable in MODE 5 or 6 provided that the requirements of TS 3.8.1.2 are satisfied.

3/4.7.7 CONTROL ROOM EMERGENCY VENTILATION SYSTEM

CONTROL ROOM EMERGENCY FILTRATION/PRESSURIZATION SYSTEM (CREFS)

LIMITING CONDITION FOR OPERATION

3.7.7.1 Two Control Room Emergency Filtration/Pressurization System (CREFS) trains shall be OPERABLE.

APPLICABILITY: ALL MODES, during movement of irradiated fuel assemblies, and during movement of loads over irradiated fuel.

ACTION:

MODES 1, 2, 3 and 4:

With one CREFS train inoperable, restore the inoperable train to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

MODES 5, 6, during movement of irradiated fuel assemblies, and during movement of loads over irradiated fuel:

a. With one CREFS train inoperable, restore the inoperable system to OPERABLE status within 7 days or immediately place the OPERABLE CREFS train in the emergency recirculation mode or immediately suspend movement of irradiated fuel assemblies and movement of loads over irradiated fuel.

b. With both CREFS trains inoperable, immediately suspend movement of irradiated fuel assemblies and movement of loads over irradiated fuel.

SURVEILLANCE REQUIREMENTS

4.7.7.1 Each CREFS train shall be demonstrated OPERABLE:

a. At least once per 31 days on a STAGGERED TEST BASIS by initiating, from the control room, flow through the pressurization and recirculation system HEPA filters and charcoal adsorbers and verifying that the pressurization system has operated for at least 10 hours with the heater circuits energized during the past 31 days.

SURVEILLANCE REQUIREMENTS (Continued)

b. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire or chemical release that could have contaminated the charcoal adsorbers or HEPA filters in any ventilation zone communicating with the system by:

1. Verifying that the cleanup system satisfies the in-place testing acceptance criteria of greater than or equal to 99.5% filter efficiency while operating the system at a flow rate indicated in Note 1 and using the following test procedures:

(a) A visual inspection of the control room emergency air cleanup system shall be made before each DOP test or activated carbon adsorber section leak test in accordance with ASME N510-1989*.

(b) An in-place DOP test for the HEPA filters shall be performed in accordance with ASME N510-1989*.

(c) A charcoal adsorber section leak test with a gaseous halogenated hydrocarbon refrigerant shall be performed in accordance with ASME N510-1989*.

2. Verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with ASME N510-1989* meets the laboratory testing efficiencies criteria given in Note 2 when tested with methyl iodide at 30°C and 70% relative humidity.

3. Verifying a system flow rate as indicated in Note 1 during system operation when tested in accordance with ASME N510-1989*.

c. After every 720 hours of charcoal adsorber operation by verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with ASME N510-1989* meets the laboratory testing efficiencies criteria given in Note 2 when tested with methyl iodide at 30°C and 70% relative humidity.

* The FNP Final Safety Analysis Report identifies the relevant surveillance testing requirements.

SURVEILLANCE REQUIREMENTS (Continued)

d. At least once per 18 months by:

1. Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is less than that indicated in Note 3 while operating the system at a flow rate indicated in Note 1.

2. Verifying that the filter train starts on a Safety Injection Actuation test signal.#

3. Verifying that the system maintains the control room at a positive pressure of greater than or equal to 1/8 inch water gauge relative to the outside atmosphere during system operation.

4. Verifying that the pressurization system heater dissipates 7.5 ± 0.8 kw when tested in accordance with ASME N510-1989*.+

e. After each complete or partial replacement of a HEPA filter bank by verifying that the HEPA filter banks remove greater than or equal to 99.5% of the DOP when they are tested in-place in accordance with ASME N510-1989* while operating the system at a flow rate indicated in Note 1.

f. After each complete or partial replacement of a charcoal adsorber bank by verifying that the charcoal adsorbers remove greater than or equal to 99.5% of a halogenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with ASME N510-1989* while operating the system at a flow rate indicated in Note 1.

Note 1.	a.	Control Room Recirculation Filter Unit	2000 cfm ± 10%
	b.	Control Room Filter Unit	1000 cfm ± 10%
	c.	Control Room Pressurization Filter Unit	300 cfm ± 10%
Note 2.	a.	Control Room Recirculation Filter Unit	≥ 97.5%
	b.	Control Room Filter Unit	≥ 97.5%
	c.	Control Room Pressurization (6 in. bed depth)	≥ 99.5%
Note 3.	a.	Control Room Recirculation Filter Unit	2.3 in. water gauge
	b.	Control Room Filter Unit	2.9 in. water gauge
	c.	Control Room Pressurization Filter Unit	2.2 in. water gauge

Surveillance Requirement 4.7.7.1.d.2 does not apply in MODES 5 and 6.

* The FNP Final Safety Analysis Report identifies the relevant surveillance testing requirements.

+ Mechanical heater surveillance testing per ASME N510-1989 will be performed no later than completion of the Unit 1 15th refueling outage scheduled for the fall of 1998.

3/4.7.8 PENETRATION ROOM FILTRATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.8 Two independent penetration room filtration systems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With one penetration room filtration system inoperable, restore the inoperable system to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.7.8 Each penetration room filtration system shall be demonstrated OPERABLE:

a. At least once per 31 days on a STAGGERED TEST BASIS by initiating, from the control room, the flow through the HEPA filters and charcoal adsorbers and verifying that the system has operated for at least 15 minutes in its post LOCA alignment.

b. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire or chemical release that could have contaminated the charcoal adsorbers or HEPA filters in any ventilation zone communicating with the system by:

1. Verifying that the cleanup system satisfies the in-place testing acceptance criteria of greater than or equal to 99.5% filter efficiency while operating the system at a flow rate of 5000 cfm ± 10 percent and using the following test procedures:

(a) A visual inspection of the penetration room filtration system shall be made before each DOP test or activated carbon adsorber section leak test in accordance with ASME N510-1989*.

(b) An in-place DOP test for the HEPA filters shall be performed in accordance with ASME N510-1989*.

(c) A charcoal adsorber section leak test with a gaseous halogenated hydrocarbon refrigerant shall be performed in accordance with ASME N510-1989*.

* The FNP Final Safety Analysis Report identifies the relevant surveillance testing requirements.

SURVEILLANCE REQUIREMENTS (Continued)

2. Verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with ASME N510-1989* meets the laboratory testing criterion of greater than or equal to 90% efficiency when tested with methyl iodide at 30°C and 95% relative humidity.

3. Verifying a system flow rate of 5000 cfm ± 10% during system operation when tested in accordance with ASME N510-1989*.

c. After every 720 hours of charcoal adsorber operation by verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with ASME N510-1989* meets the laboratory testing criterion of greater than or equal to 90% efficiency when tested with methyl iodide at 30°C and 95% relative humidity.

d. At least once per 18 months by:

1. Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks of less than 2.6 inches Water Gauge while operating the system at a flow rate of 5000 cfm ± 10%.

2. Verifying that the system starts on a Phase B Isolation test signal.

e. At least once per 36 months on a STAGGERED TEST BASIS by verifying one PRF train can maintain a pressure ≤ -0.125 inches w.g. relative to atmosphere during the post LOCA mode of operation at a flow rate of ≤ 5500 cfm.

f. After each complete or partial replacement of a HEPA filter bank by verifying that the HEPA filter banks remove greater than or equal to 99.5% of the DOP when they are tested in-place in accordance with ASME N510-1989* while operating the system at a flow rate of 5000 cfm ± 10%.

g. After each complete or partial replacement of a charcoal adsorber bank by verifying that the charcoal adsorbers remove greater than or equal to 99.5% of a halogenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with ASME N510-1989* while operating the system at a flow rate of 5000 cfm ± 10%.

* The FNP Final Safety Analysis Report identifies the relevant surveillance testing requirements.

3/4.9.12 STORAGE POOL VENTILATION (FUEL STORAGE)

LIMITING CONDITION FOR OPERATION

3.9.12 One penetration room filtration system (Specification 3.7.8) shall be OPERABLE and aligned to the spent fuel pool room.

APPLICABILITY: Whenever irradiated fuel is in the storage pool.

ACTION:

a. With no penetration room filtration system OPERABLE, suspend all operations involving movement of fuel within the storage pool until at least one penetration room filtration system is restored to OPERABLE status.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.9.12.1 A penetration room filtration system shall be verified to be aligned to the spent fuel pool room within 12 hours prior to storage of fuel in the spent fuel pool and at least once per 7 days thereafter while fuel is stored in the storage pool.

4.9.12.2 The penetration room filtration system shall be demonstrated OPERABLE:

a. At least once per 31 days on a STAGGERED TEST BASIS by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and verifying that the system has operated for at least 15 minutes in its fuel handling accident alignment.

b. Filter testing per requirements of Specification 4.7.8.b, c, d.1, f and g.

4.9.12.3 At least once per 18 months, verify that the normal spent fuel pool ventilation system will isolate upon receipt of either;

a. The spent fuel pool ventilation low differential pressure test signal, or

b. A spent fuel pool high radiation test signal.

3/4.9.13 STORAGE POOL VENTILATION (FUEL MOVEMENT)

LIMITING CONDITION FOR OPERATION

3.9.13 Two independent penetration room filtration systems (Specification 3.7.8) shall be OPERABLE * and aligned to the spent fuel pool room:

APPLICABILITY: During crane operation with loads, over the fuel in the spent fuel pit and during fuel movement within the spent fuel pit.

ACTION:

a. With one penetration room filtration system inoperable return both systems to OPERABLE status within 7 days or suspend all movement of fuel and crane operation with loads over the spent fuel in the storage pool room.

b. The provisions of Specification 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.9.13.1 Two penetration room filtration systems shall be verified to be aligned to the spent fuel pool room within 12 hours prior to fuel handling or crane operations in the storage pool room and at least once per 24 hours thereafter until fuel movement operations in the storage pool room are suspended.

4.9.13.2 The penetration room filtration system shall be demonstrated OPERABLE per the requirements of Specifications 4.9.12.2 and 4.9.12.3.

* The normal or emergency power source may be inoperable in MODE 5 or 6 provided that the requirements of TS 3.8.1.2 are satisfied.

3/4.9.14 CONTAINMENT PURGE EXHAUST FILTER

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3 /4 7.6.1 ULTIMATE HEAT SINK (RIVER)

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3/4 7.6.2 ULTIMATE HEAT SINK (POND)

The limitations on the ultimate heat sink level and temperature ensure that sufficient cooling capacity is available to either 1) provide normal cooldown of the facility, or 2) to mitigate the effects of accident conditions within acceptable limits.

The limitations on minimum water level and maximum temperature are based on providing a 30 day cooling water supply to safety related equipment without exceeding their design basis temperature. The measurement of the ground water seepage at least once per 5 years will provide assurance that the 30 day supply of water is available.

3/4.7.7 CONTROL ROOM EMERGENCY VENTILATION SYSTEM

The control room emergency filtration/pressurization system (CREFS) consists of two independent, redundant trains that recirculate and filter the control room air, and two independent, redundant trains that pressurize the control room. The OPERABILITY of this system in conjunction with control room design provisions is based on limiting the radiation exposure to personnel occupying the control room to 5 rem or less whole body, or its equivalent. This limitation is consistent with the requirements of General Design Criteria 19 of Appendix 'A', 10CFR50.

When one CREFS train is inoperable, action must be taken to restore OPERABLE status within 7 days. In this Condition, the remaining OPERABLE CREFS train is adequate to perform the control room protection function. However, the overall reliability is reduced because a single failure in the OPERABLE CREFS train could result in loss of CREFS function. The 7 day Completion Time is based on the low probability of a DBA occurring during this time period, and ability of the remaining train to provide the required capability.

Operation of the pressurization unit with the heater circuits energized for at least 10 continuous hours over a 31 day period is sufficient to reduce the buildup of moisture on the adsorbers and HEPA filter.

The control room air conditioning system (CRACS) consists of two independent, redundant trains that provide cooling of recirculated control room air. Each control room air conditioning (CRAC) train is inoperable if it is not capable of removing the required heat load for plant conditions. The actual heat load and the heat removal capability needed to adequately cool the control room is dependent upon factors such as outdoor air temperature.

3/4.7.7 CONTROL ROOM EMERGENCY VENTILATION SYSTEM (continued)

With one CRAC train inoperable, the inoperable train must be returned to OPERABLE status within 30 days. This Allowed Outage Time is based on the low probability of complete loss of control room cooling due to the redundancy of the support systems, the capability of the OPERABLE train to provide the required cooling, the potential that plant staff actions can restore or mitigate the effects of component failures, and the time available to respond as loss of control room cooling does not have an immediate, irreversible impact.

While in MODES 5 and 6 during movement of irradiated fuel assemblies or movement of loads over irradiated fuel, if both trains of CRAC cannot be restored to OPERABLE status within 30 days, an OPERABLE CRAC train must be placed in operation immediately; otherwise, immediately suspend movement of irradiated fuel assemblies and movement of loads over irradiated fuel.

The OPERABILITY of the control room emergency ventilation system ensures that 1) the ambient air temperature does not exceed the allowable temperature for continuous duty rating for the equipment and instrumentation cooled by this system and 2) the control room will remain habitable for operations personnel during and following all credible accident conditions.

3/4.7.8 PENETRATION ROOM FILTRATION SYSTEM

The OPERABILITY of the penetration room filtration system provides reasonable assurance that radioactive materials leaking from ECCS pump rooms during post LOCA recirculation are filtered prior to reaching the environment. The minimum system flowrate maintains a slightly negative pressure in the penetration room area and ECCS pump rooms assuming only one filter train is operating. The maximum system flow rate ensures that the pressure drop across filters is not excessive and adequate residence time is attained in the charcoal filter. The PRF system is tested periodically in its post LOCA alignment. Periodic testing of the RHR heat exchanger room negative pressure to less than or equal to -0.125 inch water gauge with respect to atmosphere verifies the integrity of the PRF system pressure boundary and is consistent with the guidance for standard technical specifications in NUREG 1431. Functional testing of proper PRF system operation and pressure boundary integrity provide reasonable assurance that unfiltered release to adjacent areas of any ECCS leakage will be minimized. Although not credited in the accident analyses, the PRF system also provides filtration of containment leakage into the penetration room areas. The operation of this system and the resultant effect from ECCS leakage on offsite dosage calculations was assumed in the accident analyses.

3/4.9.9 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 accident analysis.

3/4.9.12 and 3/4.9.13 STORAGE POOL VENTILATION SYSTEM

The OPERABILITY of the penetration room filtration system ensures that radioactive materials leaking from the spent fuel pool area following a FHA are filtered prior to reaching the environment. The PRF system is tested periodically in its FHA alignment to ensure the system functions properly. Testing of HEPA filter performance, charcoal adsorber efficiency, and the physical proprieties of the activated charcoal is bounded by testing performed per 4.7.8. The OPERABILITY of this system and the resulting iodine removal capacity are consistent with the assumptions of the accident analyses. The note regarding PRF electrical system OPERABILITY is provided for clarification. In MODES 5 and 6, the electrical power requirements do not require considering a single failure coincident with a loss of all offsite or all onsite power.

With one PRF train inoperable, action must be taken to restore OPERABLE status within 7 days. During this period, the remaining OPERABLE train is adequate to perform the PRF function. The 7 day completion time is based on the risk from an event occurring requiring the inoperable PRF train, and the remaining PRF train providing the required protection.

3/4.9.14 CONTAINMENT PURGE EXHAUST FILTER

This specification deleted.

Enclosure 4

Joseph M. Farley Nuclear Plant
Control Room, Penetration Room, and Containment Purge Filtration Systems
and Radiation Monitoring Instrumentation
Technical Specification Changes

Unit 2 Technical Specification Pages

FNP Unit 2

Technical Specifications

Control Room, Penetration Room, and Containment Purge Filtration Systems
and Radiation Monitoring Instrumentation

Changed Pages

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XIV	Replace
XV	Replace
3/4 3-39	Replace
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3/4 9-17	Replace
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B 3/4 9-3	Replace

BASES

BASES

TABLE 3.3-6

RADIATION MONITORING INSTRUMENTATION

	INSTRUMENT	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ALARM/TRIP SETPOINT	MEASUREMENT RANGE	ACTION
1.	AREA MONITORS					
	a. Fuel Storage Pool Area (R-5)	1	(a)	$\leq$ 15 mR/hr	10^{-1}-10^{4} mR/hr	23
	b. Containment Area(R-27A&B)	2	1,2,3,4	N/A	1 - 10^{7} R/hr	27a
2.	PROCESS MONITORS					
	a. Fuel Storage Pool Area Gaseous Activity- Ventilation System Isolation (R-25A&B)	1	(b)	$\leq 8.73 \times 10^{-3}$ μCi/cc(c)	10-10^{6} cpm	25
		2	(g,i)	$\leq 8.73 \times 10^{-3}$ μCi/cc(c)		25
	b. Containment					
	i. Gaseous Activity- a)Purge & Exhaust Isolation (R-24A&B)	1	1,2,3,4,5,6 (d)	$\leq 2.27 \times 10^{-2}$ μCi/cc(c)	10-10^{6} cpm	26
		2	6 (d,h,i)	$\leq 2.27 \times 10^{-2}$ μCi/cc(c)		26
		1	1,2,3,4,5,6 (e)	$\leq 4.54 \times 10^{-3}$ μCi/cc(c)		26
		2	6 (e,h,i)	$\leq 4.54 \times 10^{-3}$ μCi/cc(c)		26
		1	1,2,3,4,5,6 (f)	$\leq 2.27 \times 10^{-3}$ μCi/cc(c)		26
		2	6 (f,h,i)	$\leq 2.27 \times 10^{-3}$ μCi/cc(c)		26
	b)RCS Leakage Detection (R-12)	1	1,2,3 & 4	N/A	10-10^{6} cpm	24
	ii. Particulate Activity RCS Leakage Detection (R-11)	1	1,2,3 & 4	N/A	10-10^{6} cpm	24
	c. Control Room Isolation (R34A&B)	1	1,2,3,4	$\leq$ 800 cpm	10-10^{6} cpm	27
		2	1,2,3,4,5,6(g,h,i)	$\leq$ 800 cpm		27

TABLE 3.3-6 (Continued)

ACTION STATEMENTS

ACTION 23 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, perform area surveys of the monitored area with portable monitoring instrumentation at least once per 24 hours.

ACTION 24 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.4.7.1.

ACTION 25 - With one channel inoperable return both channels to OPERABLE status within 7 days or suspend all movement of fuel and crane operation with loads over the spent fuel in the pool. With no channels OPERABLE, suspend all movement of fuel and crane operation with loads over the spent fuel in the pool until at least one channel is restored to OPERABLE status.

ACTION 26 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.9.9.

ACTION 27 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, within 1 hour initiate and maintain operation of the control room emergency ventilation system in the emergency recirculation mode of operation.

ACTION 27a - With the number of OPERABLE Channels less than required by the Minimum Channels OPERABLE requirement, initiate the preplanned alternate method of monitoring the appropriate parameter(s), within 72 hours, and:

1) Either restore the inoperable Channel(s) to OPERABLE status within 7 days, or

2) Prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within the next 14 days following the event outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.

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a. With fuel in storage pool.
b. With irradiated fuel in the storage pool.
c. Above background with no flow.
d. With mini-purge in operation.
e. With slow speed main purge in operation.
f. With fast speed main purge in operation.
g. During movement of irradiated fuel or movement of heavy loads over irradiated fuel in the fuel storage pool area.
h. During movement of irradiated fuel or movement of heavy loads over irradiated fuel in containment.
i. The normal or emergency power source may be inoperable in MODE 5 or 6 provided that the requirements of TS 3.8.1.2 are satisfied.

3/4.7.7 CONTROL ROOM EMERGENCY VENTILATION SYSTEM

CONTROL ROOM EMERGENCY FILTRATION/PRESSURIZATION SYSTEM (CREFS)

LIMITING CONDITION FOR OPERATION

3.7.7.1 Two Control Room Emergency Filtration/Pressurization System (CREFS) trains shall be OPERABLE.

APPLICABILITY: ALL MODES, during movement of irradiated fuel assemblies, and during movement of loads over irradiated fuel.

ACTION:

MODES 1, 2, 3 and 4:

With one CREFS train inoperable, restore the inoperable train to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

MODES 5, 6, during movement of irradiated fuel assemblies, and during movement of loads over irradiated fuel:

a. With one CREFS train inoperable, restore the inoperable system to OPERABLE status within 7 days or immediately place the OPERABLE CREFS train in the emergency recirculation mode or immediately suspend movement of irradiated fuel assemblies and movement of loads over irradiated fuel.

b. With both CREFS trains inoperable, immediately suspend movement of irradiated fuel assemblies and movement of loads over irradiated fuel.

SURVEILLANCE REQUIREMENTS

4.7.7.1 Each CREFS train shall be demonstrated OPERABLE:

a. At least once per 31 days on a STAGGERED TEST BASIS by initiating, from the control room, flow through the pressurization and recirculation system HEPA filters and charcoal adsorbers and verifying that the pressurization system has operated for at least 10 hours with the heater circuits energized during the past 31 days.

SURVEILLANCE REQUIREMENTS (Continued)

b. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire or chemical release that could have contaminated the charcoal adsorbers or HEPA filters in any ventilation zone communicating with the system by:

1. Verifying that the cleanup system satisfies the in-place testing acceptance criteria of greater than or equal to 99.5% filter efficiency while operating the system at a flow rate indicated in Note 1 and using the following test procedures:

(a) A visual inspection of the control room emergency air cleanup system shall be made before each DOP test or activated carbon adsorber section leak test in accordance with ASME N510-1989*.

(b) An in-place DOP test for the HEPA filters shall be performed in accordance with ASME N510-1989*.

(c) A charcoal adsorber section leak test with a gaseous halogenated hydrocarbon refrigerant shall be performed in accordance with ASME N510-1989*.

2. Verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with ASME N510-1989* meets the laboratory testing efficiencies criteria given in Note 2 when tested with methyl iodide at 30°C and 70% relative humidity.

3. Verifying a system flow rate as indicated in Note 1 during system operation when tested in accordance with ASME N510-1989*.

c. After every 720 hours of charcoal adsorber operation by verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with ASME N510-1989* meets the laboratory testing efficiencies criteria given in Note 2 when tested with methyl iodide at 30°C and 70% relative humidity.

* The FNP Final Safety Analysis Report identifies the relevant surveillance testing requirements.

SURVEILLANCE REQUIREMENTS (Continued)

d. At least once per 18 months by:

1. Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is less than that indicated in Note 3 while operating the system at a flow rate indicated in Note 1.

2. Verifying that the filter train starts on a Safety Injection Actuation test signal.#

3. Verifying that the system maintains the control room at a positive pressure of greater than or equal to 1/8 inch water gauge relative to the outside atmosphere during system operation.

4. Verifying that the pressurization system heater dissipates 7.5 ± 0.8 kw when tested in accordance with ASME N510-1989*.+

e. After each complete or partial replacement of a HEPA filter bank by verifying that the HEPA filter banks remove greater than or equal to 99.5% of the DOP when they are tested in-place in accordance with ASME N510-1989* while operating the system at a flow rate indicated in Note 1.

f. After each complete or partial replacement of a charcoal adsorber bank by verifying that the charcoal adsorbers remove greater than or equal to 99.5% of a halogenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with ASME N510-1989* while operating the system at a flow rate indicated in Note 1.

Note 1.	a.	Control Room Recirculation Filter Unit	2000 cfm ± 10%
	b.	Control Room Filter Unit	1000 cfm ± 10%
	c.	Control Room Pressurization Filter Unit	300 cfm ± 10%
Note 2.	a.	Control Room Recirculation Filter Unit	≥ 97.5%
	b.	Control Room Filter Unit	≥ 97.5%
	c.	Control Room Pressurization (6 in. bed depth)	≥ 99.5%
Note 3.	a.	Control Room Recirculation Filter Unit	2.3 in. water gauge
	b.	Control Room Filter Unit	2.9 in. water gauge
	c.	Control Room Pressurization Filter Unit	2.2 in. water gauge

Surveillance Requirement 4.7.7.1.d.2 does not apply in MODES 5 and 6.

* The FNP Final Safety Analysis Report identifies the relevant surveillance testing requirements.

+ Mechanical heater surveillance testing per ASME N510-1989 will be performed no later than completion of the Unit 2 12th refueling outage scheduled for the spring of 1998.

3/4.7.8 PENETRATION ROOM FILTRATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.8 Two independent penetration room filtration systems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With one penetration room filtration system inoperable, restore the inoperable system to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.7.8 Each penetration room filtration system shall be demonstrated OPERABLE:

a. At least once per 31 days on a STAGGERED TEST BASIS by initiating, from the control room, the flow through the HEPA filters and charcoal adsorbers and verifying that the system has operated for at least 15 minutes in its post LOCA alignment.

b. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire or chemical release that could have contaminated the charcoal adsorbers or HEPA filters in any ventilation zone communicating with the system by:

1. Verifying that the cleanup system satisfies the in-place testing acceptance criteria of greater than or equal to 99.5% filter efficiency while operating the system at a flow rate of 5000 cfm ± 10 percent and using the following test procedures:

(a) A visual inspection of the penetration room filtration system shall be made before each DOP test or activated carbon adsorber section leak test in accordance with ASME N510-1989*.

(b) An in-place DOP test for the HEPA filters shall be performed in accordance with ASME N510-1989*.

(c) A charcoal adsorber section leak test with a gaseous halogenated hydrocarbon refrigerant shall be performed in accordance with ASME N510-1989*.

* The FNP Final Safety Analysis Report identifies the relevant surveillance testing requirements.

SURVEILLANCE REQUIREMENTS (Continued)

2. Verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with ASME N510-1989* meets the laboratory testing criterion of greater than or equal to 90% efficiency when tested with methyl iodide at 30°C and 95% relative humidity.

3. Verifying a system flow rate of 5000 cfm ± 10% during system operation when tested in accordance with ASME N510-1989*.

c. After every 720 hours of charcoal adsorber operation by verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with ASME N510-1989* meets the laboratory testing criterion of greater than or equal to 90% efficiency when tested with methyl iodide at 30°C and 95% relative humidity.

d. At least once per 18 months by:

1. Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks of less than 2.6 inches Water Gauge while operating the system at a flow rate of 5000 cfm ± 10%.

2. Verifying that the system starts on a Phase B Isolation test signal.

e. At least once per 36 months on a STAGGERED TEST BASIS by verifying one PRF train can maintain a pressure ≤ -0.125 inches w.g. relative to atmosphere during the post LOCA mode of operation at a flow rate of ≤ 5500 cfm.

f. After each complete or partial replacement of a HEPA filter bank by verifying that the HEPA filter banks remove greater than or equal to 99.5% of the DOP when they are tested in-place in accordance with ASME N510-1989* while operating the system at a flow rate of 5000 cfm ± 10%.

g. After each complete or partial replacement of a charcoal adsorber bank by verifying that the charcoal adsorbers remove greater than or equal to 99.5% of a halogenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with ASME N510-1989* while operating the system at a flow rate of 5000 cfm ± 10%.

* The FNP Final Safety Analysis Report identifies the relevant surveillance testing requirements.

3/4.9.12 STORAGE POOL VENTILATION (FUEL STORAGE)

LIMITING CONDITION FOR OPERATION

3.9.12 One penetration room filtration system (Specification 3.7.8) shall be OPERABLE and aligned to the spent fuel pool room.

APPLICABILITY: Whenever irradiated fuel is in the storage pool.

ACTION:

a. With no penetration room filtration system OPERABLE, suspend all operations involving movement of fuel within the storage pool until at least one penetration room filtration system is restored to OPERABLE status.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.9.12.1 A penetration room filtration system shall be verified to be aligned to the spent fuel pool room within 12 hours prior to storage of fuel in the spent fuel pool and at least once per 7 days thereafter while fuel is stored in the storage pool.

4.9.12.2 The penetration room filtration system shall be demonstrated OPERABLE:

a. At least once per 31 days on a STAGGERED TEST BASIS by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and verifying that the system has operated for at least 15 minutes in its fuel handling accident alignment.

b. Filter testing per requirements of Specification 4.7.8.b, c, d.1, f and g.

4.9.12.3 At least once per 18 months, verify that the normal spent fuel pool ventilation system will isolate upon receipt of either;

a. The spent fuel pool ventilation low differential pressure test signal, or

b. A spent fuel pool high radiation test signal.

3/4.9.13 STORAGE POOL VENTILATION (FUEL MOVEMENT)

LIMITING CONDITION FOR OPERATION

3.9.13 Two independent penetration room filtration systems (Specification 3.7.8) shall be OPERABLE * and aligned to the spent fuel pool room:

APPLICABILITY: During crane operation with loads, over the fuel in the spent fuel pit and during fuel movement within the spent fuel pit.

ACTION:

a. With one penetration room filtration system inoperable return both systems to OPERABLE status within 7 days or suspend all movement of fuel and crane operation with loads over the spent fuel in the storage pool room.

b. The provisions of Specification 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.9.13.1 Two penetration room filtration systems shall be verified to be aligned to the spent fuel pool room within 12 hours prior to fuel handling or crane operations in the storage pool room and at least once per 24 hours thereafter until fuel movement operations in the storage pool room are suspended.

4.9.13.2 The penetration room filtration system shall be demonstrated OPERABLE per the requirements of Specifications 4.9.12.2 and 4.9.12.3.

* The normal or emergency power source may be inoperable in MODE 5 or 6 provided that the requirements of TS 3.8.1.2 are satisfied.

3/4.9.14 CONTAINMENT PURGE EXHAUST FILTER

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3 /4 7.6.1 ULTIMATE HEAT SINK (RIVER)

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3/4 7.6.2 ULTIMATE HEAT SINK (POND)

The limitations on the ultimate heat sink level and temperature ensure that sufficient cooling capacity is available to either 1) provide normal cooldown of the facility, or 2) to mitigate the effects of accident conditions within acceptable limits.

The limitations on minimum water level and maximum temperature are based on providing a 30 day cooling water supply to safety related equipment without exceeding their design basis temperature. The measurement of the ground water seepage at least once per 5 years will provide assurance that the 30 day supply of water is available.

3/4.7.7 CONTROL ROOM EMERGENCY VENTILATION SYSTEM

The control room emergency filtration/pressurization system (CREFS) consists of two independent, redundant trains that recirculate and filter the control room air, and two independent, redundant trains that pressurize the control room. The OPERABILITY of this system in conjunction with control room design provisions is based on limiting the radiation exposure to personnel occupying the control room to 5 rem or less whole body, or its equivalent. This limitation is consistent with the requirements of General Design Criteria 19 of Appendix 'A', 10CFR50.

When one CREFS train is inoperable, action must be taken to restore OPERABLE status within 7 days. In this Condition, the remaining OPERABLE CREFS train is adequate to perform the control room protection function. However, the overall reliability is reduced because a single failure in the OPERABLE CREFS train could result in loss of CREFS function. The 7 day Completion Time is based on the low probability of a DBA occurring during this time period, and ability of the remaining train to provide the required capability.

Operation of the pressurization unit with the heater circuits energized for at least 10 continuous hours over a 31 day period is sufficient to reduce the buildup of moisture on the adsorbers and HEPA filter.

The control room air conditioning system (CRACS) consists of two independent, redundant trains that provide cooling of recirculated control room air. Each control room air conditioning (CRAC) train is inoperable if it is not capable of removing the required heat load for plant conditions. The actual heat load and the heat removal capability needed to adequately cool the control room is dependent upon factors such as outdoor air temperature.

3 /4.7.7 CONTROL ROOM EMERGENCY VENTILATION SYSTEM (continued)

With one CRAC train inoperable, the inoperable train must be returned to OPERABLE status within 30 days. This Allowed Outage Time is based on the low probability of complete loss of control room cooling due to the redundancy of the support systems, the capability of the OPERABLE train to provide the required cooling, the potential that plant staff actions can restore or mitigate the effects of component failures, and the time available to respond as loss of control room cooling does not have an immediate, irreversible impact.

While in MODES 5 and 6 during movement of irradiated fuel assemblies or movement of loads over irradiated fuel, if both trains of CRAC cannot be restored to OPERABLE status within 30 days, an OPERABLE CRAC train must be placed in operation immediately; otherwise, immediately suspend movement of irradiated fuel assemblies and movement of loads over irradiated fuel.

The OPERABILITY of the control room emergency ventilation system ensures that 1) the ambient air temperature does not exceed the allowable temperature for continuous duty rating for the equipment and instrumentation cooled by this system and 2) the control room will remain habitable for operations personnel during and following all credible accident conditions.

3/4.7.8 PENETRATION ROOM FILTRATION SYSTEM

The OPERABILITY of the penetration room filtration system provides reasonable assurance that radioactive materials leaking from ECCS pump rooms during post LOCA recirculation are filtered prior to reaching the environment. The minimum system flowrate maintains a slightly negative pressure in the penetration room area and ECCS pump rooms assuming only one filter train is operating. The maximum system flow rate ensures that the pressure drop across filters is not excessive and adequate residence time is attained in the charcoal filter. The PRF system is tested periodically in its post LOCA alignment. Periodic testing of the RHR heat exchanger room negative pressure to less than or equal to -0.125 inch water gauge with respect to atmosphere verifies the integrity of the PRF system pressure boundary and is consistent with the guidance for standard technical specifications in NUREG 1431. Functional testing of proper PRF system operation and pressure boundary integrity provide reasonable assurance that unfiltered release to adjacent areas of any ECCS leakage will be minimized. Although not credited in the accident analyses, the PRF system also provides filtration of containment leakage into the penetration room areas. The operation of this system and the resultant effect from ECCS leakage on offsite dosage calculations was assumed in the accident analyses.

3/4.9.9 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 accident analysis.

3/4.9.12 and 3/4.9.13 STORAGE POOL VENTILATION SYSTEM

The OPERABILITY of the penetration room filtration system ensures that radioactive materials leaking from the spent fuel pool area following a FHA are filtered prior to reaching the environment. The PRF system is tested periodically in its FHA alignment to ensure the system functions properly. Testing of HEPA filter performance, charcoal adsorber efficiency, and the physical proprieties of the activated charcoal is bounded by testing performed per 4.7.8. The OPERABILITY of this system and the resulting iodine removal capacity are consistent with the assumptions of the accident analyses. The note regarding PRF electrical system OPERABILITY is provided for clarification. In MODES 5 and 6, the electrical power requirements do not require considering a single failure coincident with a loss of all offsite or all onsite power.

With one PRF train inoperable, action must be taken to restore OPERABLE status within 7 days. During this period, the remaining OPERABLE train is adequate to perform the PRF function. The 7 day completion time is based on the risk from an event occurring requiring the inoperable PRF train, and the remaining PRF train providing the required protection.

3/4.9.14 CONTAINMENT PURGE EXHAUST FILTER

This specification deleted.

Enclosure 5

Joseph M. Farley Nuclear Plant
Control Room, Penetration Room, and Containment Purge Filtration Systems
and Radiation Monitoring Instrumentation
Technical Specification Changes

Units 1&2 Marked-Up Technical Specification Pages

Joseph M. Farley Nuclear Plant
Control Room, Penetration Room, and Containment Purge Filtration Systems
and Radiation Monitoring Instrumentation
Technical Specification Changes

Unit 1 Marked-Up Technical Specification Pages

BASES

BASES

SECTION

TABLE 3.3-6

RADIATION MONITORING INSTRUMENTATION

	INSTRUMENT	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ALARM/TRIP SETPOINT	MEASUREMENT RANGE	ACTION
1.	AREA MONITORS					
a.	Fuel Storage Pool Area (R-5)	1	(a)	$\leq$ 15 mR/hr	10^{-1}-10^{4} mR/hr	23
b.	Containment Area (R-27A&B)	2	1,2,3,4	N/A	1 - 10^{7} R/hr	27a
2.	PROCESS MONITORS					
a.	Fuel Storage Pool Area Gaseous Activity- Ventilation System Isolation (R-25A&B)	1	(b)	$\leq$ 8.73 x 10^{-3} µCi/cc(c)	$10^{-10^{6}}$ cpm	25
b.	Containment					
i.	Gaseous Activity-					
a)	Purge & Exhaust Isolation (R-24A&B)	1	1,2,3 (d)	$\leq$ 2.27 x 10^{-2} µCi/cc(c)	$10^{-10^{6}}$ cpm	26
			4,5,6 (d)	$\leq$ 2.27 x 10^{-3} µCi/cc(c)		26
			1,2,3,4,5,6 (e)	$\leq$ 4.54 x 10^{-3} µCi/cc(c)		26
			1,2,3,4,5,6 (f)	$\leq$ 2.27 x 10^{-3} µCi/cc(c)		26
b)	RCS Leakage Detection (R-12)	1	1,2,3 & 4	N/A	$10^{-10^{6}}$ cpm	24
ii.	Particulate Activity RCS Leakage Detection (R-11)	1	1,2,3 & 4	N/A	$10^{-10^{6}}$ cpm	24
c.	Control Room Isolation (R35A&B)	1	1,2,3,4 ~~and during movement of irradiated fuel or movement of loads over irradiated fuel~~	$\leq$ 800 cpm	$10^{-10^{6}}$ cpm	27

Insert 1

Insert 2

Insert 3

TABLE 3.3-6 (Continued)

ACTION STATEMENTS

ACTION 23 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, perform area surveys of the monitored area with portable monitoring instrumentation at least once per 24 hours.

ACTION 24 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.4.7.1.

ACTION 25 - ~~With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.9.12 and 3.9.13.~~ Insert 4

ACTION 26 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.9.9.

ACTION 27 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, within 1 hour initiate and maintain operation of the control room emergency ventilation system in the emergency recirculation mode of operation.

ACTION 27a - With the number of OPERABLE Channels less than required by the Minimum Channels OPERABLE requirement, initiate the preplanned alternate method of monitoring the appropriate parameter(s), within 72 hours, and:

1) Either restore the inoperable Channel(s) to OPERABLE status within 7 days, or

2) Prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within the next 14 days following the event outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.

a. With fuel in storage pool.
b. With irradiated fuel in the storage pool.
c. Above backgr[illegible] with no flow.
d. With mini-purge in operation.
e. With slow speed main purge in operation.
f. With fast speed main purge in operation.

Insert 5

Insert 1 for Table 3.3-6

	2	(g,i)	$\leq 8.73 \times 10^{-3}$ µCi/cc(c)		25

Insert 2 for Table 3.3-6

Isolation (R-24A&B)	1	1,2,3,4,5,6 (d)	$\leq 2.27 \times 10^{-2}$ µCi/cc(c)	$10\text{-}10^{6}$ cpm	26
	2	6 (d,h,i)	$\leq 2.27 \times 10^{-2}$ µCi/cc(c)		26
	1	1,2,3,4,5,6 (e)	$\leq 4.54 \times 10^{-3}$ µCi/cc(c)		26
	2	6 (e,h,i)	$\leq 4.54 \times 10^{-3}$ µCi/cc(c)		26
	1	1,2,3,4,5,6 (f)	$\leq 2.27 \times 10^{-3}$ µCi/cc(c)		26
	2	6 (f,h,i)	$\leq 2.27 \times 10^{-3}$ µCi/cc(c)		26

Insert 3 for Table 3.3-6

	2	1,2,3,4,5,6(g,h,i)	≤ 800 cpm	27

Insert 4 for Table 3.3-6

With one channel inoperable return both channels to OPERABLE status within 7 days or suspend all movement of fuel and crane operation with loads over the spent fuel in the pool. With no channels OPERABLE, suspend all movement of fuel and crane operation with loads over the spent fuel in the pool until at least one channel is restored to OPERABLE status.

Insert 5 for Table 3.3-6

g. During movement of irradiated fuel or movement of heavy loads over irradiated fuel in the fuel storage pool area.

h. During movement of irradiated fuel or movement of heavy loads over irradiated fuel in containment.

i. The normal or emergency power source may be inoperable in MODE 5 or 6 provided that the requirements of TS 3.8.1.2 are satisfied.

3/4.7.7 CONTROL ROOM EMERGENCY VENTILATION SYSTEM

CONTROL ROOM EMERGENCY FILTRATION/PRESSURIZATION SYSTEM (CREFS)

LIMITING CONDITION FOR OPERATION

3.7.7.1 Two Control Room Emergency Filtration/Pressurization System (CREFS) trains shall be OPERABLE.

APPLICABILITY: ALL MODES, during movement of irradiated fuel assemblies, and during movement of loads over irradiated fuel.

ACTION:

MODES 1, 2, 3 and 4:

With one CREFS train inoperable, restore the inoperable train to OPERABLE status within 7* days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

MODES 5, 6, during movement of irradiated fuel assemblies, and during movement of loads over irradiated fuel:

a. With one CREFS train inoperable, restore the inoperable system to OPERABLE status within 7 days or immediately place the OPERABLE CREFS train in the emergency recirculation mode or immediately suspend movement of irradiated fuel assemblies and movement of loads over irradiated fuel.

b. With both CREFS trains inoperable, immediately suspend movement of irradiated fuel assemblies and movement of loads over irradiated fuel.

SURVEILLANCE REQUIREMENTS

4.7.7.1 Each CREFS train shall be demonstrated OPERABLE:

a. At least once per 31 days on a STAGGERED TEST BASIS by initiating, from the control room, flow through the pressurization and recirculation system HEPA filters and charcoal adsorbers and verifying that the pressurization system has operated for at least 10 hours with the heater ~~on~~ during the past 31 days.

CIRCUITS ENERGIZED

* A one-time extension to 30 days for each train of the recirculation filtration function of CREFS is granted for implementation of control room cooling design changes. The provisions of specification 3.0.4 are not applicable during this 30-day extension. This one-time extension expires on completion of the Unit 1 14th refueling outage (Spring '97).

b. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire or chemical release that could have contaminated the charcoal adsorbers or HEPA filters in any ventilation zone communicating with the system by:

1. Verifying that the cleanup system satisfies the in-place testing acceptance criteria of greater than or equal to 99.5% filter efficiency while operating the system at a flow rate indicated in Note 1 and using the following test procedures:

(a) A visual inspection of the control room emergency air cleanup system shall be made before each DOP test or activated carbon adsorber section leak test in accordance with ASME N510-1989*.

(b) An in-place DOP test for the HEPA filters shall be performed in accordance with ~~Section 10 of ANSI~~ ASME N510-~~1980~~ 1989*.

(c) A charcoal adsorber section leak test with a gaseous halogenated hydrocarbon refrigerant shall be performed in accordance with ~~Section 12 of ANSI~~ ASME N510-~~1980~~ 1989*.

2. Verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with ~~Section 13 of ANSI~~ ASME N510-~~1980~~ 1989* meets the laboratory testing efficiencies criteria given in Note 2 when tested with methyl iodide at ~~80~~ 30°C and 70% relative humidity.

3. Verifying a system flow rate as indicated in Note 1 during system operation when tested in accordance with ASME N510-1989*.

c. After every 720 hours of charcoal adsorber operation by verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with ~~Section 13 of ANSI~~ ASME N510-~~1980~~ 1989* meets the laboratory testing efficiencies criteria given in Note 2 when tested with methyl iodide at ~~80~~ 30°C and 70% relative humidity.

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* The FNP Final Safety Analysis Report identifies the relevant surveillance testing requirements.

SURVEILLANCE REQUIREMENTS (Continued)

d. At least once per 18 months by:

1. Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is less than ~~6 inches Water Gauge~~ that indicated in NOTE 3 while operating the system at a flow rate indicated in Note 1.~~**~~

2. Verifying that the filter train starts on a Safety Injection Actuation test signal.#

3. Verifying that the system maintains the control room at a positive pressure of greater than or equal to 1/8 inch water gauge relative to the outside atmosphere during system operation.

4. Verifying that the pressurization system heater dissipates 7.5 ± 0.8 kw when tested in accordance with ASME N510-1989*.+

e. After each complete or partial replacement of a HEPA filter bank by verifying that the HEPA filter banks remove greater than or equal to 99.5% of the DOP when they are tested in-place in accordance with ~~Section 10 of ANSI~~ ASME N510-~~1980~~ 1989 while operating the system at a flow rate indicated in Note 1.

f. After each complete or partial replacement of a charcoal adsorber bank by verifying that the charcoal adsorbers remove greater than or equal to 99.5% of a halogenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with ~~Section 12 of ANSI~~ ASME N510-~~1980~~ 1989 while operating the system at a flow rate indicated in Note 1.

Note 1.

a.	Control Room Recirculation Filter Unit	2000 cfm ± 10%
b.	Control Room Filter Unit	1000 cfm ± 10%
c.	Control Room Pressurization Filter Unit	300 cfm ± 10%

Note 2.

a.	Control Room Recirculation Filter Unit	≥ ~~99%~~ 97.5%
b.	Control Room Filter Unit	≥ ~~99%~~ 97.5%
c.	Control Room Pressurization (6" bed depth)	≥ ~~99.025%~~ 99.5%

Surveillance Requirement 4.7.7.1.d.2 does not apply in MODES 5 and 6.

* The FNP Final Safety Analysis Report identifies the relevant surveillance testing requirements.

~~** FNP will revise the maximum pressure drop for this surveillance requirement in a June 1997 technical specification submittal as committed in Southern Nuclear's letter dated April 23, 1997.~~

+ Mechanical heater surveillance testing per ASME N510-1989 will be performed no later than completion of the Unit 1 15th refueling outage scheduled for the fall of 1998.

Note 3.

a.	Control Room Recirculation Filter Unit	2.3 in. water gauge
b.	Control Room Filter Unit	2.9 in. water gauge
c.	Control Room Pressurization Filter Unit	2.3 in. water gauge

3/4.7.8 PENETRATION ROOM FILTRATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.8 Two independent penetration room filtration systems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With one penetration room filtration system inoperable, restore the inoperable system to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.7.8 Each penetration room filtration system shall be demonstrated OPERABLE:

a. At least once per 31 days on a STAGGERED TEST BASIS by initiating, from the control room, the flow through the HEPA filters and charcoal adsorbers and verifying that the system has operated for at least ~~10 hours with the heaters on during the past 31 days.~~ 15 MINUTES IN ITS POST LOCA ALIGNMENT.

b. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire or chemical release that could have contaminated the charcoal adsorbers or HEPA filters in any ventilation zone communicating with the system by:

1. Verifying that the cleanup system satisfies the in-place testing acceptance criteria of greater than or equal to 99.5% filter efficiency while operating the system at a flow rate of 5000 cfm ± 10 percent and using the following test procedures:

(a) A visual inspection of the penetration room filtration system shall be made before each DOP test or activated carbon adsorber section leak test in accordance with ASME N510-1989*.

(b) An in-place DOP test for the HEPA filters shall be performed in accordance with ~~Section 10 of ANSI~~ ASME N510-~~1980~~ 1989*

(c) A charcoal adsorber section leak test with a gaseous halogenated hydrocarbon refrigerant shall be performed in accordance with ~~Section 12 of ANSI~~ ASME N510-~~1980~~ 1989*

* The FNP Final Safety Analysis Report identifies the relevant surveillance testing requirements.

2. Verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with ~~Section 13 of ANSI~~ N510-~~1980~~ meets the laboratory testing criterion of greater than or equal to ~~95%~~ efficiency when tested with methyl iodide at ~~30°C~~ and ~~70%~~ relative humidity.

3. Verifying a system flow rate of 5000 cfm ± 10% during system operation when tested in accordance with ASME N510-1989*.

c. After every 720 hours of charcoal adsorber operation by verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with ~~Section 13 of ANSI~~ N510-~~1980~~ meets the laboratory testing criterion of greater than or equal to ~~95%~~ efficiency when tested with methyl iodide at ~~30°C~~ and ~~70%~~ relative humidity.

d. At least once per 18 months by:

1. Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks of less than ~~6~~ inches Water Gauge while operating the system at a flow rate of 5000 cfm ± 10% ~~at~~.

2. Verifying that the system starts on a Phase B Isolation test signal.

~~3. Verifying that the heaters dissipate 25 ± 2.5 kw when tested in accordance with ASME N510-1989~~

e. AT LEAST ONCE PER 36 MONTHS ON A STAGGERED TEST BASIS After each complete or partial replacement of a HEPA filter bank by verifying that the HEPA filter banks remove greater than or equal to 99.5% of the DOP when they are tested in-place in accordance with ~~Section 10 of ANSI~~ N510-~~1980~~ while operating the system at a flow rate of 5000 cfm ± 10%.

f. After each complete or partial replacement of a charcoal adsorber bank by verifying that the charcoal adsorbers remove greater than or equal to 99.5% of a halogenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with ~~Section 12 of ANSI~~ N510-~~1980~~ while operating the system at a flow rate of 5000 cfm ± 10%.

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* The FNP Final Safety Analysis Report identifies the relevant surveillance testing requirements.

~~## FNP will revise the maximum pressure drop for this surveillance requirement in a June 1997 technical specification submittal as committed in Southern Nuclear's letter dated April 23, 1997.~~

~~+ Mechanical heater surveillance testing per ASME N510-1989 will be performed no later than completion of the Unit 1 15th refueling outage scheduled for the fall of 1998.~~

BY VERIFYING ONE PRF TRAIN CAN MAINTAIN A PRESSURE ≤ -0.125 INCHES w.g. ~~water~~ RELATIVE TO ATMOSPHERE DURING THE POST LOCA MODE OF OPERATION AT A FLOW RATE of ≤ 5500 CFM

3/4.9.12 STORAGE POOL VENTILATION FUEL STORAGE

LIMITING CONDITION FOR OPERATION

3.9.12 One penetration room filtration system (Specification 3.7.6) shall be OPERABLE and aligned to the spent fuel pool room.

APPLICABILITY: Whenever irradiated fuel is in the storage pool.

ACTION:

a. With no penetration room filtration system OPERABLE, suspend all operations involving movement of fuel within the storage pool until at least one penetration room filtration system is restored to OPERABLE status.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.9.12.1 A penetration room filtration system shall be verified to be aligned to the spent fuel pool room within 12 hours prior to storage of fuel in the spent fuel pool and at least once per 7 days thereafter while fuel is stored in the storage pool.

4.9.12.2 ~~The penetration room filtration system shall be demonstrated OPERABLE per the requirements of Specification 4.7.6.~~ } INSERT 1 3/4.9.12 (4.9.12.2)

4.9.12.3 At least once per 18 months, verify that the normal spent fuel pool ventilation system will isolate upon receipt of either;

a. The spent fuel pool ventilation low differential pressure test signal, or

b. A spent fuel pool high radiation test signal.

INSERT 1
TO TS SURVEILLANCE PAGE 3/4 9-14
3/4.9.12 Storage Pool Ventilation System

4.9.12.2 The penetration room filtration system shall be demonstrated OPERABLE:

a. At least once per 31 days on a STAGGERED TEST BASIS by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and verifying that the system has operated for at least 15 minutes in its fuel handling accident alignment.

b. Filter testing per requirements of Specification 4.7.8.b, c, d.1, f and g.

3/4.9.13 STORAGE POOL VENTILATION (FUEL MOVEMENT)

LIMITING CONDITION FOR OPERATION

3.9.13 Two independent penetration room filtration systems (Specification 3.7.8 shall be OPERABLE * and aligned to the spent fuel pool room:

APPLICABILITY: During crane operation with loads, over the fuel in the spent fuel pit and during fuel movement within the spent fuel pit.

ACTION:

a. With one penetration room filtration system inoperable return both systems to OPERABLE status within 7 days or suspend all movement of fuel and crane operation with loads over the spent fuel in the storage pool room.

b. The provisions of Specification 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.9.13.1 Two penetration room filtration systems shall be verified to be aligned to the spent fuel pool room within 12 hours prior to fuel handling or crane operations in the storage pool room and at least once per 24 hours thereafter until fuel movement operations in the storage pool room are suspended.

4.9.13.2 The penetration room filtration system shall be demonstrated OPERABLE per the requirements of Specification ~~4.7.8.~~ 4.9.12.2 and 4.9.12.3.

~~4.9.13.3 At least once per 18 months verify that the normal spent fuel pool system ventilation system will isolate upon receipt of either;~~

~~a. The spent fuel pool ventilation low differential pressure test signal, or~~

~~b. A spent fuel pool high radiation test signal.~~

* The normal or emergency power source may be inoperable in MODE 5 or 6 provided that the requirements of TS 3.8.1.2 are satisfied.

3/4.9.14 CONTAINMENT PURGE EXHAUST FILTER

LIMITING CONDITION FOR OPERATION

3.9.14 The containment purge exhaust filter shall be OPERABLE and valve N1P13V293 closed.

APPLICABILITY: During CORE ALTERATIONS and Fuel Movement inside containment with any containment purge isolation valve open.

ACTION: With the containment purge exhaust filter inoperable either:

1. Immediately close the 48 inch containment purge isolation valves (CBV-HV-3196, 3197, 3198A and 3198D) and the 8 inch containment mini-purge isolation valves (CBV-HV-2856C, 2866D, 2867C and 2867D), or
2. Cease all CORE ALTERATIONS and fuel movement.

SURVEILLANCE REQUIREMENTS

4.9.14 The above required containment purge exhaust filter shall be demonstrated OPERABLE:

a. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire or chemical release that could have contaminated the charcoal adsorbers or HEPA filter in any ventilation zone communicating with the system by:

This specification deleted.

SURVEILLANCE REQUIREMENTS (Continued)

1. Verifying that the cleanup system satisfies the in-place testing acceptance criteria of greater than or equal to 99.5% filter efficiency while operating the main purge system and using the following test procedures:

   (a) A visual inspection of the containment purge exhaust filter system shall be made before each DOP test or activated carbon adsorber section leak test in accordance with ASME N510-1989*.

   (b) An in-place DOP test for the HEPA filters shall be performed in accordance with Section 10 of ANSI N510-1980.

   (c) A charcoal adsorber section leak test with a gaseous halogenated hydrocarbon refrigerant shall be performed in accordance with Section 12 of ANSI N510-1980.

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2. Verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Section 13 of ANSI N510-1980 meets the laboratory testing criterion of greater than or equal to 90% efficiency when tested with methyl iodide at 80°C and 70% relative humidity.

b. After every 12 months of charcoal adsorber operation by verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Section 13 of ANSI N510-1980 meets the laboratory testing criterion of greater than or equal to 90% efficiency when tested with methyl iodide at 80°C and 70% relative humidity.

c. At least once per 18 months by verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is less than 6 inches Water Gauge while operating the main purge system.

* The FNP Final Safety Analysis Report identifies the relevant surveillance testing requirements.

SURVEILLANCE REQUIREMENTS (Continued)

d. After each complete or partial replacement of a HEPA filter bank by verifying that the HEPA filter banks remove greater than or equal to 99.5% of the DOP when they are tested in-place in accordance with Section 10 of ANSI N510-1980.

e. After each complete or partical replacement of a charcoal adsorber bank by verifying that the charcoal adsorbers remove greater than or equal to 99.5% of a halogenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with Section 12 of ANSI N510-1980 while operating the main purge system.

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3/4.7.6.1 ULTIMATE HEAT SINK (RIVER)

This specification deleted.

3/4.7.6.2 ULTIMATE HEAT SINK (POND)

The limitations on the ultimate heat sink level and temperature ensure that sufficient cooling capacity is available to either 1) provide normal cooldown of the facility, or 2) to mitigate the effects of accident conditions within acceptable limits.

The limitations on minimum water level and maximum temperature are based on providing a 30 day cooling water supply to safety related equipment without exceeding their design basis temperature. The measurement of the ground water seepage at least once per 5 years will provide assurance that the 30 day supply of water is available.

3/4.7.7 CONTROL ROOM EMERGENCY VENTILATION SYSTEM

The control room emergency filtration/pressurization system (CREFS) consists of two independent, redundant trains that recirculate and filter the control room air, and two independent, redundant trains that pressurize the control room.. The OPERABILITY of this system in conjunction with control room design provisions is based on limiting the radiation exposure to personnel occupying the control room to 5 rem or less whole body, or its equivalent. This limitation is consistent with the requirements of General Design Criteria 19 of Appendix "A", 10CFR50.

When one CREFS train is inoperable, action must be taken to restore OPERABLE status within 7 days. In this Condition, the remaining OPERABLE CREFS train is adequate to perform the control room protection function. However, the overall reliability is reduced because a single failure in the OPERABLE CREFS train could result in loss of CREFS function. The 7 day Completion Time is based on the low probability of a DBA occurring during this ~~period of~~ time period, and ability of the remaining train to provide the required capability.

Cumulative operation of the ~~system~~ Pressurization unit with the heaters on circuits energized for at least 10 hours over a 31 day period is sufficient to reduce the buildup of moisture on the adsorbers and HEPA filter. (continuous)

The control room air conditioning system (CRACS) consists of two independent, redundant trains that provide cooling of recirculated control room air. Each control room air conditioning (CRAC) train is inoperable if it is not capable of removing the required heat load for plant conditions. The actual heat load and the heat removal capability needed to adequately cool the control room is dependent upon factors such as outdoor air temperature.

3/4.7.7 CONTROL ROOM EMERGENCY VENTILATION SYSTEM (continued)

With one CRAC train inoperable, the inoperable train must be returned to OPERABLE status within 30 days. This Allowed Outage Time is based on the low probability of complete loss of control room cooling due to the redundancy of the support systems, the capability of the OPERABLE train to provide the required cooling, the potential that plant staff actions can restore or mitigate the effects of component failures, and the time available to respond as loss of control room cooling does not have an immediate, irreversible impact.

While in MODES 5 and 6 during movement of irradiated fuel assemblies or movement of loads over irradiated fuel, if both trains of CRAC cannot be restored to OPERABLE status within 30 days, an OPERABLE CRAC train must be placed in operation immediately; otherwise, immediately suspend movement of irradiated fuel assemblies and movement of loads over irradiated fuel.

The OPERABILITY of the control room emergency ventilation system ensures that 1) the ambient air temperature does not exceed the allowable temperature for continuous duty rating for the equipment and instrumentation cooled by this system and 2) the control room will remain habitable for operations personnel during and following all credible accident conditions.

3/4.7.8 ~~ECCS PUMP ROOM EXHAUST AIR FILTRATION SYSTEM & PENETRATION ROOM AIR FILTRATION SYSTEMS~~

~~The OPERABILITY of the penetration room air filtration system ensures that radioactive materials leaking from the ECCS equipment within the pump room following a LOCA are filtered prior to reaching the environment. The operation of this system and the resultant effect on offsite dosage calculations was assumed in the accident analyses.~~

~~Cumulative operation of the system with the heaters on for at least 10 hours over a 31 day period is sufficient to reduce the buildup of moisture on the adsorbers and HEPA filters.~~

Insert 1
3/4.7.8

Insert 1
To TS Bases Page B 3/4 7-4a
3/4.7.8 Penetration Room Filtration System

The OPERABILITY of the penetration room filtration system provides reasonable assurance that radioactive materials leaking from ECCS pump rooms during post LOCA recirculation are filtered prior to reaching the environment. The minimum system flowrate maintains a slightly negative pressure in the penetration room area and ECCS pump rooms assuming only one filter train is operating. The maximum system flow rate ensures that the pressure drop across filters is not excessive and adequate residence time is attained in the charcoal filter. The PRF system is tested periodically in its post LOCA alignment. Periodic testing of the RHR heat exchanger room negative pressure to less than or equal to -0.125 inch water gauge with respect to atmosphere verifies the integrity of the PRF system pressure boundary and is consistent with the guidance for standard technical specifications in NUREG 1431. Functional testing of proper PRF system operation and pressure boundary integrity provide reasonable assurance that unfiltered release to adjacent areas of any ECCS leakage will be minimized. Although not credited in the accident analyses, the PRF system also provides filtration of containment leakage into the penetration room areas. The operation of this system and the resultant effect from ECCS leakage on offsite dosage calculations was assumed in the accident analyses.

3/4.9.9 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 accident analysis.

3/4.9.12 and 3/4.9.13 STORAGE POOL VENTILATION SYSTEM

~~The limitations on the storage pool ventilation 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. The OPERABILITY of this system and the resulting iodine removal capacity are consistent with the assumptions of the accident analyses.~~ Insert 3 3/4 9-3

The note regarding PRF electrical system OPERABILITY is provided for clarification. In MODES 5 and 6, the electrical power requirements do not require considering a single failure coincident with a loss of all offsite or all onsite power.

With one PRF train inoperable, action must be taken to restore OPERABLE status within 7 days. During this period, the remaining OPERABLE train is adequate to perform the PRF function. The 7 day completion time is based on the risk from an event occurring requiring the inoperable PRF train, and the remaining PRF train providing the required protection.

3/4.9.14 CONTAINMENT PURGE EXHAUST FILTER

~~The operability of the containment purge exhaust filter ensures that in the event of a fuel handling accident in the containment the radioactive materials released are filtered and adsorbed prior to reaching the environment.~~

This specification deleted.

INSERT 3
TO TS BASES PAGE B 3/4 9-3
3/4.9.12 and 3/4.9.13 Storage Pool Ventilation System

The OPERABILITY of the penetration room filtration system ensures that radioactive materials leaking from the spent fuel pool area following a FHA are filtered prior to reaching the environment. The PRF system is tested periodically in its FHA alignment to ensure the system functions properly. Testing of HEPA filter performance, charcoal adsorber efficiency, and the physical properties of the activated charcoal is bounded by testing performed per 4.7.8. The OPERABILITY of this system and the resulting iodine removal capacity are consistent with the assumptions of the accident analyses.

Joseph M. Farley Nuclear Plant
Control Room, Penetration Room, and Containment Purge Filtration Systems
and Radiation Monitoring Instrumentation
Technical Specification Changes

Unit 2 Marked Up Technical Specification Pages

BASES

SECTION PAGE

TABLE 3.3-6

RADIATION MONITORING INSTRUMENTATION

	INSTRUMENT	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ALARM/TRIP SETPOINT	MEASUREMENT RANGE	ACTION
1.	AREA MONITORS					
	a. Fuel Storage Pool Area (R-5)	1	(a)	$\leq$ 15 mR/hr	10^{-1}-10^{4} mR/hr	23
	b. Containment Area (R-27A&B)	2	1,2,3,4	N/A	1 - 10^{7} R/hr	27a
2.	PROCESS MONITORS					
	a. Fuel Storage Pool Area Gaseous Activity- Ventilation System Isolation (R-25A&B)	1	(b)	$\leq 8.73 \times 10^{-3}$ µCi/cc(c)	10-10^{6} cpm	25
	b. Containment					
	i. Gaseous Activity-					
	a) Purge & Exhaust Isolation (R-24A&B)	1	1,2,3 (d)	$\leq 2.27 \times 10^{-2}$ µCi/cc(c)	10-10^{6} cpm	26
			4,5,6 (d)	$\leq 2.27 \times 10^{-2}$ µCi/cc(c)		26
			1,2,3,4,5,6 (e)	$\leq 4.54 \times 10^{-3}$ µCi/cc(c)		26
			1,2,3,4,5,6 (f)	$\leq 2.27 \times 10^{-3}$ µCi/cc(c)		26
	b) RCS Leakage Detection (R-12)	1	1,2,3 & 4	N/A	10-10^{6} cpm	24
	ii. Particulate Activity RCS Leakage Detection (R-11)	1	1,2,3 & 4	N/A	10-10^{6} cpm	24
	c. Control Room Isolation (R35A&B)	1	1,2,3,4 ~~and during movement of irradiated fuel or movement of loads over irradiated fuel~~	$\leq$ 800 cpm	10-10^{6} cpm	27

Insert 1

Insert 2

Insert 3

TABLE 3.3-6 (Continued)

ACTION STATEMENTS

ACTION 23 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, perform area surveys of the monitored area with portable monitoring instrumentation at least once per 24 hours.

ACTION 24 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.4.7.1.

ACTION 25 - ~~With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.9.12 and 3.9.13.~~ Insert 4

ACTION 26 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.9.9.

ACTION 27 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, within 1 hour initiate and maintain operation of the control room emergency ventilation system in the emergency recirculation mode of operation.

ACTION 27a - With the number of OPERABLE Channels less than required by the Minimum Channels OPERABLE requirement, initiate the preplanned alternate method of monitoring the appropriate parameter(s), within 72 hours, and:

1) Either restore the inoperable Channels(s) to OPERABLE status within 7 days, or

2) Prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within the next 14 days following the event outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.

a. With fuel in storage pool.
b. With irradiated fuel in the storage pool.
c. Above background with no flow.
d. With mini-purge in operation.
e. With slow speed main purge in operation.
f. With fast speed main purge in operation.

Insert 5

Insert 1 for Table 3.3-6

	2	(g,i)	$\leq 8.73 \times 10^{-3}$ µCi/cc(c)		25

Insert 2 for Table 3.3-6

Isolation (R-24A&B)	1	1,2,3,4,5,6 (d)	$\leq 2.27 \times 10^{-2}$ µCi/cc(c)	$10\text{-}10^{6}$ cpm	26
	2	6 (d,h,i)	$\leq 2.27 \times 10^{-2}$ µCi/cc(c)		26
	1	1,2,3,4,5,6 (e)	$\leq 4.54 \times 10^{-3}$ µCi/cc(c)		26
	2	6 (e,h,i)	$\leq 4.54 \times 10^{-3}$ µCi/cc(c)		26
	1	1,2,3,4,5,6 (f)	$\leq 2.27 \times 10^{-3}$ µCi/cc(c)		26
	2	6 (f,h,i)	$\leq 2.27 \times 10^{-3}$ µCi/cc(c)		26

Insert 3 for Table 3.3-6

	2	1,2,3,4,5,6(g,h,i)	≤ 800 cpm	27

Insert 4 for Table 3.3-6

With one channel inoperable return both channels to OPERABLE status within 7 days or suspend all movement of fuel and crane operation with loads over the spent fuel in the pool. With no channels OPERABLE, suspend all movement of fuel and crane operation with loads over the spent fuel in the pool until at least one channel is restored to OPERABLE status.

Insert 5 for Table 3.3-6

g. During movement of irradiated fuel or movement of heavy loads over irradiated fuel in the fuel storage pool area.

h. During movement of irradiated fuel or movement of heavy loads over irradiated fuel in containment.

i. The normal or emergency power source may be inoperable in MODE 5 or 6 provided that the requirements of TS 3.8.1.2 are satisfied.

3/4.7.7 CONTROL ROOM EMERGENCY VENTILATION SYSTEM

CONTROL ROOM EMERGENCY FILTRATION/PRESSURIZATION SYSTEM (CREFS)

LIMITING CONDITION FOR OPERATION

3.7.7.1 Two Control Room Emergency Filtration/Pressurization System (CREFS) trains shall be OPERABLE.

APPLICABILITY: ALL MODES, during movement of irradiated fuel assemblies, and during movement of loads over irradiated fuel.

ACTION:

MODES 1, 2, 3 and 4:

With one CREFS train inoperable, restore the inoperable train to OPERABLE status within 7X days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

MODES 5, 6, during movement of irradiated fuel assemblies, and during movement of loads over irradiated fuel:

a. With one CREFS train inoperable, restore the inoperable system to OPERABLE status within 7 days or immediately place the OPERABLE CREFS train in the emergency recirculation mode or immediately suspend movement of irradiated fuel assemblies and movement of loads over irradiated fuel.

b. With both CREFS trains inoperable, immediately suspend movement of irradiated fuel assemblies and movement of loads over irradiated fuel.

SURVEILLANCE REQUIREMENTS

4.7.7.1 Each CREFS train shall be demonstrated OPERABLE:

a. At least once per 31 days on a STAGGERED TEST BASIS by initiating, from the control room, flow through the pressurization and recirculation system HEPA filters and charcoal adsorbers and verifying that the pressurization system has operated for at least 10 hours with the heater ~~on~~ during the past 31 days.

CIRCUITS ENERGIZED

* A one-time extension to 30 days for each train of the recirculation filtration function of CREFS is granted for implementation of control room cooling design changes. The provisions of specification 3.0.4 are not applicable during this 30-day extension. This one-time extension expires on completion of the Unit 1 14th refueling outage (Spring '97).

b. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire or chemical release that could have contaminated the charcoal adsorbers or HEPA filters in any ventilation zone communicating with the system by:

1. Verifying that the cleanup system satisfies the in-place testing acceptance criteria of greater than or equal to 99.5% filter efficiency while operating the system at a flow rate indicated in Note 1 and using the following test procedures:

(a) A visual inspection of the control room emergency air cleanup system shall be made before each DOP test or activated carbon adsorber section leak test in accordance with ASME N510-1989*.

(b) An in-place DOP test for the HEPA filters shall be performed in accordance with ~~Section 10 of ANSI~~ ASME N510-~~1980~~ 1989*.

(c) A charcoal adsorber section leak test with a gaseous halogenated hydrocarbon refrigerant shall be performed in accordance with ~~Section 12 of ANSI~~ ASME N510-~~1980~~ 1989*.

2. Verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with ~~Section 13 of ANSI~~ ASME N510-~~1980~~ 1989* meets the laboratory testing efficiencies criteria given in Note 2 when tested with methyl iodide at ~~30~~°C and 70% relative humidity.

3. Verifying a system flow rate as indicated in Note 1 during system operation when tested in accordance with ASME N510-1989*.

c. After every 720 hours of charcoal adsorber operation by verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with ~~Section 13 of ANSI~~ ASME N510-~~1980~~ 1989* meets the laboratory testing efficiencies criteria given in Note 2 when tested with methyl iodide at ~~30~~°C and 70% relative humidity.

* The FNP Final Safety Analysis Report identifies the relevant surveillance testing requirements.

that indicated in NOTE 3

d. At least once per 18 months by:

1. Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is less than ~~6 inches Water Gauge~~ while operating the system at a flow rate indicated in Note 1.~~##~~

2. Verifying that the filter train starts on a Safety Injection Actuation test signal.#

3. Verifying that the system maintains the control room at a positive pressure of greater than or equal to 1/8 inch water gauge relative to the outside atmosphere during system operation.

4. Verifying that the pressurization system heater dissipates 7.5 ± 0.8 kw when tested in accordance with ASME N510-1989*.+

e. After each complete or partial replacement of a HEPA filter bank by verifying that the HEPA filter banks remove greater than or equal to 99.5% of the DOP when they are tested in-place in accordance with ~~Section 10 of ANSI~~ ASME N510-~~1980~~ 1989* while operating the system at a flow rate indicated in Note 1.

f. After each complete or partial replacement of a charcoal adsorber bank by verifying that the charcoal adsorbers remove greater than or equal to 99.5% of a halogenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with ~~Section 12 of ANSI~~ ASME N510-~~1980~~ 1989* while operating the system at a flow rate indicated in Note 1.

Note 1.

a.	Control Room Recirculation Filter Unit	2000 cfm ± 10%
b.	Control Room Filter Unit	1000 cfm ± 10%
c.	Control Room Pressurization Filter Unit	300 cfm ± 10%

Note 2.

a.	Control Room Recirculation Filter Unit	≥ ~~99%~~ 97.5%
b.	Control Room Filter Unit	≥ ~~99%~~ 97.5 %
c.	Control Room Pressurization (4" bed depth)	≥ ~~99.025%~~ 99.5%

Surveillance Requirement 4.7.7.1.d.2 does not apply in MODES 5 and 6.

* The FNP Final Safety Analysis Report identifies the relevant surveillance testing requirements.

~~## FNP will revise the maximum pressure drop for this surveillance requirement in a June 1997 technical specification submittal as committed in Southern Nuclear's letter dated April 23, 1997.~~

+ Mechanical heater surveillance testing per ASME N510-1989 will be performed no later than completion of the Unit 2 12th refueling outage scheduled for the spring of 1998.

Note 3.

a.	Control Room Recirculation Filter Unit	2.3 in. water gauge
b.	Control Room Filter Unit	2.9 in. water gauge
c.	Control Room Pressurization Filter Unit	2.2 in. water gauge

3/4.7.8 PENETRATION ROOM FILTRATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.8 Two independent penetration room filtration systems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With one penetration room filtration system inoperable, restore the inoperable system to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.7.8 Each penetration room filtration system shall be demonstrated OPERABLE:

a. At least once per 31 days on a STAGGERED TEST BASIS by initiating, from the control room, the flow through the HEPA filters and charcoal adsorbers and verifying that the system has operated for at least ~~10 hours with the heaters on during the past 31 days.~~ 15 MINUTES IN ITS POST LOCA ALIGNMENT.

b. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire or chemical release that could have contaminated the charcoal adsorbers or HEPA filters in any ventilation zone communicating with the system by:

1. Verifying that the cleanup system satisfies the in-place testing acceptance criteria of greater than or equal to 99.5% filter efficiency while operating the system at a flow rate of 5000 cfm ± 10 percent and using the following test procedures:

(a) A visual inspection of the penetration room filtration system shall be made before each DOP test or activated carbon adsorber section leak test in accordance with ASME N510-1989*.

(b) An in-place DOP test for the HEPA filters shall be performed in accordance with ~~Section 10 of ANSI~~ ASME N510-~~1980~~ 1989*

(c) A charcoal adsorber section leak test with a gaseous halogenated hydrocarbon refrigerant shall be performed in accordance with ~~Section 12 of ANSI~~ ASME N510-~~1980~~ 1989*

* The FNP Final Safety Analysis Report identifies the relevant surveillance testing requirements.

2. Verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with ~~Section 13 of ANSI~~ N510-~~1980~~ meets the laboratory testing criterion of greater than or equal to ~~95%~~ efficiency when tested with methyl iodide at ~~80°C~~ and ~~70%~~ relative humidity.

3. Verifying a system flow rate of 5000 cfm ± 10% during system operation when tested in accordance with ASME N510-1989*.

c. After every 720 hours of charcoal adsorber operation by verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with ~~Section 13 of ANSI~~ N510-~~1980~~ meets the laboratory testing criteria of greater than or equal to ~~95%~~ efficiency when tested with methyl iodide at ~~80°C~~ and ~~70%~~ relative humidity.

d. At least once per 18 months by:

1. Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks of less than ~~6~~ inches Water Gauge while operating the system at a flow rate of 5000 cfm ± 10%.

2. Verifying that the system starts on a Phase B Isolation test signal.

~~3. Verifying that the heaters dissipate 75 ± 2.5 kw when tested in accordance with ASME N510-1989*.~~

e. AT LEAST ONCE PER 36 MONTHS ON A STAGGERED TEST BASIS

f. After each complete or partial replacement of a HEPA filter bank by verifying that the HEPA filter banks remove greater than or equal to 99.5% of the DOP when they are tested in-place in accordance with ~~Section 10 of ANSI~~ N510-~~1980~~ while operating the system at a flow rate of 5000 cfm ± 10%.

g. After each complete or partial replacement of a charcoal adsorber bank by verifying that the charcoal adsorbers remove greater than or equal to 99.5% of a halogenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with ~~Section 13 of ANSI~~ N510-~~1980~~ while operating the system at a flow rate of 5000 cfm ± 10%.

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* The FNP Final Safety Analysis Report identifies the relevant surveillance testing requirements.

~~## FNP will revise the maximum pressure drop for this surveillance requirement in a June 1997 technical specification submittal as committed in Southern Nuclear's letter dated April 23, 1997.~~

~~+ Mechanical heater surveillance testing per ASME N510-1989 will be performed no later than completion of the Unit 2 12th refueling outage scheduled for the spring of 1998.~~

BY VERIFYING ONE PRP TRAIN CAN MAINTAIN A PRESSURE ≤ -0.125 INCHES WATER GAUGE RELATIVE TO ATMOSPHERE DURING THE POST LOCA MODE OF OPERATION AT A FLOW RATE OF ≤ 5500 CFM.

3/4.9.12 STORAGE POOL VENTILATION (FUEL STORAGE)

LIMITING CONDITION FOR OPERATION

3.9.12 One penetration room filtration system (Specification 3.7.8) shall be OPERABLE and aligned to the spent fuel pool room.

APPLICABILITY: Whenever irradiated fuel is in the storage pool.

ACTION:

a. With no penetration room filtration system OPERABLE, suspend all operations involving movement of fuel within the storage pool until at least one penetration room filtration system is restored to OPERABLE status.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.9.12.1 A penetration room filtration system shall be verified to be aligned to the spent fuel pool room within 12 hours prior to storage of fuel in the spent fuel pool and at least once per 7 days thereafter while fuel is stored in the storage pool.

4.9.12.2 ~~The penetration room filtration system shall be demonstrated OPERABLE per the requirements of Specification 4.7.8.~~ } INSERT 1 3/4.9.12 (4.9.12.2)

4.9.12.3 At least once per 18 months, verify that the normal spent fuel pool ventilation system will isolate upon receipt of either:

a. The spent fuel pool ventilation low differential pressure test signal, or

b. A spent fuel pool high radiation test signal.

INSERT 1
TO TS SURVEILLANCE PAGE 3/4 9-14
3/4.9.12 Storage Pool Ventilation System

4.9.12.2 The penetration room filtration system shall be demonstrated OPERABLE:

a. At least once per 31 days on a STAGGERED TEST BASIS by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and verifying that the system has operated for at least 15 minutes in its fuel handling accident alignment.

b. Filter testing per requirements of Specification 4.7.8.b, c, d.1, f and g.

3/4.9.13 STORAGE POOL VENTILATION (FUEL MOVEMENT)

LIMITING CONDITION FOR OPERATION

3.9.13 Two independent penetration room filtration systems (Specification 3.7.8) shall be OPERABLE * and aligned to the spent fuel pool room.

APPLICABILITY: During crane operation with loads, over the fuel in the spent fuel pit and during fuel movement within the spent fuel pit.

ACTION:

a. With one penetration room filtration system inoperable return both systems to OPERABLE status within 7 days or suspend all movement of fuel and crane operation with loads over the spent fuel in the storage pool room.

b. The provisions of Specification 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.9.13.1 Two penetration room filtration systems shall be verified to be aligned to the spent fuel pool room within 12 hours prior to fuel handling or crane operations in the storage pool room and at least once per 24 hours thereafter until fuel movement operations in the storage pool room are suspended.

4.9.13.2 The penetration room filtration system shall be demonstrated OPERABLE per the requirements of Specification ~~4.7.8~~ 4.9.12.2 and 4.9.12.3.

~~4.9.13.3 At least once per 18 months verify that the normal spent fuel pool system ventilation system will isolate upon receipt of either:~~

~~a. The spent fuel pool ventilation low differential pressure test signal, or~~

~~b. A spent fuel pool high radiation test signal.~~

* The normal or emergency power source may be inoperable in MODE 5 or 6 provided that the requirements of TS 3.8.1.2 are satisfied.

REFUELING OPERATIONS

3/4.9.14 CONTAINMENT PURGE EXHAUST FILTER

LIMITING CONDITION FOR OPERATION

3.9.14 The containment purge exhaust filter shall be OPERABLE and valve N2P13V293 closed.

APPLICABILITY: During CORE ALTERATIONS and Fuel Movement inside containment with any containment purge isolation valve open.

ACTION: With the containment purge exhaust filter inoperable either:

1. Immediately close the 48 inch containment purge isolation valves (CBV-HV-3196, 3197, 3198A and 3198D) and the 8 inch containment mini-purge isolation valves (CBV-HV-2866C, 2866D, 2867C and 2867D), or
2. Cease all CORE ALTERATIONS and fuel movement.

SURVEILLANCE REQUIREMENTS

4.9.14 The above required containment purge exhaust filter shall be demonstrated OPERABLE:

a. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire or chemical release that could have contaminated the charcoal adsorbers or HEPA filter in any ventilation zone communicating with the system by:

This specification deleted.

SURVEILLANCE REQUIREMENTS (Continued)

1. Verifying that the cleanup system satisfies the in-place testing acceptance criteria of greater than or equal to 99.5% filter efficiency while operating the main purge system and using the following test procedures:

   (a) A visual inspection of the containment purge exhaust filter system shall be made before each DOP test or activated carbon adsorber section leak test in accordance with ASME N510-1989*.

   (b) An in-place DOP test for the HEPA filters shall be performed in accordance with Section 10 of ANSI N510-1980.

   (c) A charcoal adsorber section leak test with a gaseous halogenated hydrocarbon refrigerant shall be performed in accordance with Section 12 of ANSI N510-1980.

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3/4.9.14 Deleted

2. Verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Section 13 of ANSI N510-1980 meets the laboratory testing criterion of greater than or equal to 90% efficiency when tested with methyl iodide at 80°C and 70% relative humidity.

b. After every 12 months of charcoal adsorber operation by verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Section 13 of ANSI N510-1980 meets the laboratory testing criterion of greater than or equal to 90% efficiency when tested with methyl iodide at 80°C and 70% relative humidity.

c. At least once per 18 months by verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is less than 6 inches Water Gauge while operating the main purge system.

* The FNP Final Safety Analysis Report identifies the relevant surveillance testing requirements.

SURVEILLANCE REQUIREMENTS (Continued)

d. After each complete or partial replacement of a HEPA filter bank by verifying that the HEPA filter banks remove greater than or equal to 99.5% of the DOP when they are tested in-place in accordance with Section 10 of ANSI N510-1980.

e. After each complete or partical replacement of a charcoal adsorber bank by verifying that the charcoal adsorbers remove greater than or equal to 99.5% of a halogenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with Section 12 of ANSI N510-1980 while operating the main purge system.

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3/4.9.14 Deleted

3/4.7.6.1 ULTIMATE HEAT SINK (RIVER)

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3/4.7.6.2 ULTIMATE HEAT SINK (POND)

The limitations on the ultimate heat sink level and temperature ensure that sufficient cooling capacity is available to either 1) provide normal cooldown of the facility, or 2) to mitigate the effects of accident conditions within acceptable limits.

The limitations on minimum water level and maximum temperature are based on providing a 30 day cooling water supply to safety related equipment without exceeding their design basis temperature. The measurement of the ground water seepage at least once per 5 years will provide assurance that the 30 day supply of water is available.

3/4.7.7 CONTROL ROOM EMERGENCY VENTILATION SYSTEM

The control room emergency filtration/pressurization system (CREFS) consists of two independent, redundant trains that recirculate and filter the control room air, and two independent, redundant trains that pressurize the control room. The OPERABILITY of this system in conjunction with control room design provisions is based on limiting the radiation exposure to personnel occupying the control room to 5 rem or less whole body, or its equivalent. This limitation is consistent with the requirements of General Design Criteria 19 of Appendix "A", 10CFR50.

When one CREFS train is inoperable, action must be taken to restore OPERABLE status within 7 days. In this Condition, the remaining OPERABLE CREFS train is adequate to perform the control room protection function. However, the overall reliability is reduced because a single failure in the OPERABLE CREFS train could result in loss of CREFS function. The 7 day Completion Time is based on the low probability of a DBA occurring during this ~~period of~~ time period, and ability of the remaining train to provide the required capability.

~~Cumulative~~ operation of the ~~system~~ with the heaters ~~on~~ for at least 10 hours over a 31 day period is sufficient to ~~reduce~~ the buildup of moisture on the adsorbers and HEPA filter.

The control room air conditioning system (CRACS) consists of two independent, redundant trains that provide cooling of recirculated control room air. Each control room air conditioning (CRAC) train is inoperable if it is not capable of removing the required heat load for plant conditions. The actual heat load and the heat removal capability needed to adequately cool the control room is dependent upon factors such as outdoor air temperature.

3/4.7.7 CONTROL ROOM EMERGENCY VENTILATION SYSTEM (continued)

With one CRAC train inoperable, the inoperable train must be returned to OPERABLE status within 30 days. This Allowed Outage Time is based on the low probability of complete loss of control room cooling due to the redundancy of the support systems, the capability of the OPERABLE train to provide the required cooling, the potential that plant staff actions can restore or mitigate the effects of component failures, and the time available to respond as loss of control room cooling does not have an immediate, irreversible impact.

While in MODES 5 and 6 during movement of irradiated fuel assemblies or movement of loads over irradiated fuel, if both trains of CRAC cannot be restored to OPERABLE status within 30 days, an OPERABLE CRAC train must be placed in operation immediately; otherwise, immediately suspend movement of irradiated fuel assemblies and movement of loads over irradiated fuel.

The OPERABILITY of the control room emergency ventilation system ensures that 1) the ambient air temperature does not exceed the allowable temperature for continuous duty rating for the equipment and instrumentation cooled by this system and 2) the control room will remain habitable for operations personnel during and following all credible accident conditions.

~~3/4.7.8 BOOS PUMP ROOM EXHAUST AIR FILTRATION SYSTEM (PENETRATION ROOM AIR FILTRATION SYSTEM)~~

~~The OPERABILITY of the penetration room air filtration system ensures that radioactive materials leaking from the BOOS equipment within the pump room following a LOCA are filtered prior to reaching the environment. The operation of this system and the resultant effect on offsite dosage calculations was assumed in the accident analyses.~~

~~Cumulative operation of the system with the heaters on for at least 10 hours every 31 days is sufficient to reduce the buildup of moisture on the adsorbers and HEPA filters.~~

Insert 1
3/4.7.8

Insert 1
To TS Bases Page B 3/4 7-4a
3/4.7.8 Penetration Room Filtration System

The OPERABILITY of the penetration room filtration system provides reasonable assurance that radioactive materials leaking from ECCS pump rooms during post LOCA recirculation are filtered prior to reaching the environment. The minimum system flowrate maintains a slightly negative pressure in the penetration room area and ECCS pump rooms assuming only one filter train is operating. The maximum system flow rate ensures that the pressure drop across filters is not excessive and adequate residence time is attained in the charcoal filter. The PRF system is tested periodically in its post LOCA alignment. Periodic testing of the RHR heat exchanger room negative pressure to less than or equal to -0.125 inch water gauge with respect to atmosphere verifies the integrity of the PRF system pressure boundary and is consistent with the guidance for standard technical specifications in NUREG 1431. Functional testing of proper PRF system operation and pressure boundary integrity provide reasonable assurance that unfiltered release to adjacent areas of any ECCS leakage will be minimized. Although not credited in the accident analyses, the PRF system also provides filtration of containment leakage into the penetration room areas. The operation of this system and the resultant effect from ECCS leakage on offsite dosage calculations was assumed in the accident analyses.

3/4.9.9 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 accident analysis.

3/4.9.12 and 3/4.9.13 STORAGE POOL VENTILATION SYSTEM

~~The limitations on the storage pool ventilation 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. The OPERABILITY of this system and the resulting iodine removal capacity are consistent with the assumptions of the accident analyses.~~ Insert 3 3/4 9-3

The note regarding PRF electrical system OPERABILITY is provided for clarification. In MODES 5 and 6, the electrical power requirements do not require considering a single failure coincident with a loss of all offsite or all onsite power.

With one PRF train inoperable, action must be taken to restore OPERABLE status within 7 days. During this period, the remaining OPERABLE train is adequate to perform the PRF function. The 7 day completion time is based on the risk from an event occurring requiring the inoperable PRF train, and the remaining PRF train providing the required protection.

3/4.9.14 CONTAINMENT PURGE EXHAUST FILTER

~~The operability of the containment purge exhaust filter ensures that in the event of a fuel handling accident in the containment the radioactive materials released are filtered and adsorbed prior to reaching the environment.~~

This specification deleted.

INSERT 3
TO TS BASES PAGE B 3/4 9-3
3/4.9.12 and 3/4.9.13 Storage Pool Ventilation System

The OPERABILITY of the penetration room filtration system ensures that radioactive materials leaking from the spent fuel pool area following a FHA are filtered prior to reaching the environment. The PRF system is tested periodically in its FHA alignment to ensure the system functions properly. Testing of HEPA filter performance, charcoal adsorber efficiency, and the physical properties of the activated charcoal is bounded by testing performed per 4.7.8. The OPERABILITY of this system and the resulting iodine removal capacity are consistent with the assumptions of the accident analyses.