ENCLOSURE 6

MONTICELLO NUCLEAR GENERATING PLANT
LICENSE AMENDMENT REQUEST TO
SUPPORT 24-MONTH FUEL CYCLES

CURRENT MONTICELLO TECHNICAL SPECIFICATION
PAGES MARKED UP WITH PROPOSED CHANGES

22 PAGES FOLLOW

4. Protective Function - A system protective action which results from the protective action of the channels monitoring a particular plant condition.

R. Rated Neutron Flux - Rated flux is the neutron flux that corresponds to a steady-state power level of 1775 thermal megawatts.

S. Rated Thermal Power - Rated thermal power means a steady-state power level of 1775 thermal megawatts.

T. Reactor Coolant System Pressure or Reactor Vessel Pressure - Unless otherwise indicated, reactor vessel pressures listed in the Technical Specifications are those existing in the vessel steam space.

U. Refueling Operation and Refueling ~~Outage~~ **[Interval]** - Refueling Operation is any operation when the reactor water temperature is less than 212ºF and movement of fuel or core components is in progress. **[Refueling Interval is a designated]** ~~For the purpose of designating~~ frequency ~~of testing and~~ **[for performing]** surveillance**[s of once per 24 months.]**~~, a refueling outage shall mean a regularly scheduled refueling outage; however, where such outages occur within 8 months of the completion of the previous refueling outage, the required surveillance testing need not be performed until the next regularly scheduled outage.~~

V. Safety Limit - The safety limits are limits below which the maintenance of the cladding and primary system integrity are assured. Exceeding such a limit is cause for plant shutdown and review by the Commission before resumption of plant operation. Operation beyond such a limit may not in itself result in serious consequences but it indicates an operational deficiency subject to regulatory review.

W. Secondary Containment Integrity - Secondary Containment Integrity means that the reactor building is closed and the following conditions are met:

1. At least one door in each access opening is closed.
2. The standby gas treatment system is operable.
3. All reactor building ventilation system automatic isolation valves are operable or are secured in the closed position.

X. Sensor Check - A qualitative determination of operability by observation of sensor behavior during operation. This determination shall include, where possible, comparison with other independent sensors measuring the same variable.

4.0 SURVEILLANCE REQUIREMENTS

A. The surveillance requirements of this section shall be met. Each surveillance requirement shall be performed at the specified times except as allowed in B and C below.

B. Specific time intervals between tests may be extended up to 25% of the surveillance interval to accommodate normal test schedules**[.]** ~~with the exception that, the intervals between tests scheduled for refueling shutdowns shall not exceed two years.~~

C. Whenever the plant condition is such that a system or component is not required to be operable the surveillance testing associated with that system or component may be discontinued. Discontinued surveillance tests shall be resumed less than one test interval before establishing plant conditions requiring operability of the associated system or component.

D. If it is discovered that a surveillance was not performed within the extended time interval allowed by 4.0.B, then the affected equipment shall be declared inoperable.

E. Compliance with 4.0.D may be delayed, from the time of discovery, up to 24 hours or up to the limit of the time interval, whichever is greater. This delay period is permitted to allow performance of the surveillance. A risk evaluation shall be performed for any Surveillance delayed greater than 24 hours and the risk impact shall be managed.

Table 3.2.1 Instrumentation That Initiates Primary Containment Isolation Functions				
Function	Trip Settings	Total No. of Instrument Channels Per Trip System	Min. No. of Operable or Operating Instrument Channels Per Trip System (1, 2)	Required Conditions*
1. Main Steam and Recirc Sample Line (Group 1)				
a. Low Low Reactor Water Level	≥-48″	2	2	A
b. High Flow In Main Steam Line	≤140% rated	8	8	A
c. High temp. in Main Steam Line Tunnel	~~≤200°F~~ **[≤209°F]**	8	2 of 4 in each of 2 sets	A
d. Low Pressure in Main Steam Line (3)	≥825 psig	2	2	B
2. RHR System, Head Cooling, Drywell, Sump, TIP (Group 2)				
a. Low Reactor Water Level	≥7″	2	2	C

Table 3.2.2 Instrumentation That Initiates Emergency Core Cooling Systems					
Function	Trip Setting	Minimum No. of Operable or Operating Trip Systems (3) (6)	Total No. of Instrument Channels Per Trip System	Minimum No. of Operable or Operating Instrument Channels Per Trip System (3) (6)	Required Conditions*
Core Spray and LPCI					
Pump Start					
Low Low Reactor Water Level and	≥-48″	2	4(4)	4	A.
b. i. Reactor Low Pressure Permissive or	≥450 psig	2	2(4)	2	A.
ii. Reactor Low Pressure Permissive Bypass Timer	~~20±1 min~~ **[20±2 min]**	2	1	1	B.
c. High Drywell Pressure (1)	≤2 psig	2	4(4)	4	A.
Low Reactor Pressure (Valve Permissive)	≥450 psig	2	2(4)	2	A.
Loss of Auxiliary Power	- - - - - -	2	2(2)	2	A.

Table 3.2.6 Instrumentation for Safeguards Bus Degraded Voltage and Loss of Voltage Protection					
Function	Trip Setting	Minimum No. of Operable or Operating Trip Systems (1)	Total No. of Instrument Channels Per Trip System	Minimum No. of Operable or Operating Instrument Channels Per Trip System (1)	Required Conditions*
1. Degraded Voltage Protection (3)	3915 ± 18 volts 9 ± 1 sec	1/bus	3	3	A
2. Loss of Voltage Protection (2)	2625 ~~± 175 volts~~ **[±280 volts]** No intentional delay	2/bus	2	2	A

NOTE :

1. Upon discovery that minimum requirements for the number of operable or operating trip systems or instrument channels are not satisfied, action shall be initiated to:

   a. Satisfy the requirements by placing the appropriate channels or systems in the tripped condition, or

   b. Place the plant under the specified required conditions using normal operating procedures.

2. One out of two twice logic.

3. Two out of three logic.

* Required conditions when minimum conditions for operation are not satisfied:

   A. Cold shutdown within 24 hours.

Table 3.2.7
Instrumentation for Safety/Relief Valve Low-Low Set Logic

Function	Trip Setting	Min. No. of Operable or Operating Trip Systems	Total No. of Instrument Channels Per Trip System	Min. No. of Operable or Operating Instrument Channels Per Trip System	Required Conditions
Reactor Scram Detection		2(2)	2	2	A or B or C
Reactor Coolant System Pressure for Opening/ Closing (1)	1072 ~~± 3~~ / 992 ~~± 3~~ psig **[±14] [±14]** 1062 ~~± 3~~ / 982 ~~± 3~~ psig **[±14] [±14]** 1052 ~~± 3~~ / 972 ~~± 3~~ psig **[±14] [±14]**	2(2)	2	2	A or B or C
Discharge Pipe Pressure Inhibit and Position Indication	30 ~~± 1 psid~~ (3) **[± 3 psid]**	2(2)	2	2	A or B or C
Inhibit Timers	10 ~~± 1 sec~~ **[± 2 sec]**	2(2)	2	2	A or B or C

Table 4.2.1
Minimum Test and Calibration Frequency for Core Cooling,
Rod Block and Isolation Instrumentation

Instrument Channel	Test (3)	Calibration (3)	Sensor Check (3)
ECCS INSTRUMENTATION			
1. Reactor Low-Low Water Level	Once/3 months (Note 5)	**[Once/]**~~Every~~ Operating Cycle - Transmitter Once/3 months -Trip Unit	 Once/12 hours
2. Drywell High Pressure	Once/3 months	Once/3 months	None
3. Reactor Low Pressure (Pump Start)	Once/3 months	Once/3 months	None
4. Reactor Low Pressure (Valve Permissive)	Once/3 months	Once/3 months	None
5. Undervoltage Emergency Bus	Refueling ~~Outage~~**[Interval]**	Refueling ~~Outage~~**[Interval]**	None
6. Low Pressure Core Cooling Pumps Discharge Pressure Interlock	Once/3 months	Once/3 months	None
7. Loss of Auxiliary Power	Refueling ~~Outage~~**[Interval]**	Refueling ~~Outage~~**[Interval]**	None
8. Condensate Storage Tank Level	Refueling ~~Outage~~**[Interval]**	Refueling ~~Outage~~**[Interval]**	None
9. Reactor High Water Level	Once/3 months (Note 5)	**[Once/]**~~Every~~ Operating Cycle - Transmitter **[Once/]**~~Every~~ 3 months - Trip Unit	 Once/12 hours
[10. Reactor Low Pressure (Bypass Timer)	**Refueling Interval**	**Refueling Interval**	**None]**
[11. Auto Blowdown Timer	**Refueling Interval**	**Refueling Interval**	**None]**
ROD BLOCKS			
1. APRM Downscale	Once/3 months (Note 5)	Once/3 months	None
2. APRM Flow Variable	Once/3 months (Note 5)	Once/3 months	None
3. IRM Upscale	Notes (2,5)	Note 2	Note 2
4. IRM Downscale	Notes (2,5)	Note 2	Note 2
5. RBM Upscale	Once/3 months (Note 5)	Once/3 months	None
6. RBM Downscale	Once/3 months (Note 5)	Once/3 months	None
7. SRM Upscale	Notes (2,5)	Note 2	Note 2
8. SRM Detector Not-Full-In Position	Notes (2,9)	Note 2	None
9. Scram Discharge Volume-High Level	Once/3 months	~~Refueling Outage~~ **[Once/3 months]**	None
MAIN STEAM LINE (GROUP 1) ISOLATION			
1. Steam Tunnel High Temperature	Refueling ~~Outage~~**[Interval]**	Refueling ~~Outage~~**[Interval]**	None
2. Steam Line High Flow	Once/3 months	Once/3 Months	Once/12 hours

Table 4.2.1 Continued
Minimum Test and Calibration Frequency for Core Cooling,
Rod Block and Isolation Instrumentation

Instrument Channel	Test (3)	Calibration (3)	Sensor Check (3)
3. Steam Line Low Pressure	Once/3 months	Once/3 months	None
4. Reactor Low Low Water Level	Once/3 months (Note 5)	**[Once/]**~~Every~~ Operating Cycle-Transmitter Once/3 Months-Trip Unit	Once/12 hours
CONTAINMENT ISOLATION (GROUP 2)			
1. Reactor Low Water Level (Note 10)	-	-	-
2. Drywell High Pressure (Note 10)	-	-	-
RWCU ISOLATION (GROUP 3)			
1. High RWCU Room Temperature	Once/3 months	Once/Operating Cycle-RTD Input Once/3 months-Trip Unit	Once/12 hours
2. High RWCU System Flow	Once/3 months	Once/Operating Cycle-Transmitter Once/3 months-Trip Unit	Once/12 hours
3. Reactor Low Low Water Level (Note 11)	-	-	
4. Drywell High Pressure (Note 10)	-	-	
HPCI (GROUP 4) ISOLATION			
1. Steam Line High Flow	Once/3 months	Once/3 months	None
2. Steam Line High Temperature	Once/3 months	Once/3 months	None
3. Steam Line Low Pressure	Once/3 months	Once/3 months	None
RCIC (GROUP 5) ISOLATION			
1. Steam Line High Flow	Once/3 months	Once/3 months	None
2. Steam Line High Temperature	Once/3 months	Once/3 months	None
3. Steam Line Low Pressure	Once/3 months	Once/3 months	None

* Function changed from Low Reactor Water Level to Low Low Reactor Water Level following completion of design change.

Table 4.2.1 Continued
Minimum Test and Calibration Frequency for Core Cooling,
Rod Block and Isolation Instrumentation

Instrument Channel	Test (3)	Calibration (3)	Sensor Check (3)
REACTOR BUILDING VENTILATION & STANDBY GAS TREATMENT			
1. Reactor Low Low Water Level	Once/3 months (Note 5)	**[Once/]**~~Every~~ Operating Cycle – Transmitter Once/3 months - Trip Unit	Once/12 hours
2. Drywell High Pressure (Note 10)	-	-	-
3. Radiation Monitors (Plenum)	Once/3 months	Once/3 months	Once/day
4. Radiation Monitors (Refueling Floor)	Once/3 months	Once/3 months	Note 4
RECIRCULATION PUMP TRIP AND ALTERNATE ROD INJECTION			
1. Reactor High Pressure	Once/3 months (Note 5)	Once/Operating Cycle-Transmitter Once/3 Months-Trip Unit	Once/Day
2. Reactor Low Low Water Level	Once/3 months (Note 5)	Once/Operating Cycle- Transmitter Once/3 Months-Trip Unit	Once/12 hours
SHUTDOWN COOLING SUPPLY ISOLATION			
1. Reactor Pressure Interlock	Once/3 months	Once/3 Months	None
SAFEGUARDS BUS VOLTAGE			
1. Degraded Voltage Protection	Once/month	Quarterly	Not applicable
2. Loss of Voltage Protection	Once/month	Once/Operating Cycle	Not applicable
SAFETY/RELIEF VALVE LOW-LOW SET LOGIC			
1. Reactor Scram Sensing	Once/Shutdown (Note 8)	-	-
2. Reactor Pressure – Opening	Once/3 months (Note 5)	Once/Operating Cycle	Once/day
3. Reactor Pressure – Closing	Once/3 months (Note 5)	Once/Operating Cycle	Once/day
4. Discharge Pipe Pressure	Once/3 months (Note 5)	See Table 4.14.1	See Table 4.14.1
5. Inhibit Timer	Once/3 months (Note 5)	Once/~~Operating Cycle~~ **[3 months]**	-
CONTROL ROOM HABITABILITY PROTECTION			
1. Radiation	Monthly (Note 5)	~~18~~ **[24]** months	Daily

3. One of the following conditions of inoperability may exist for the period specified:

   a. One Core Spray subsystem may be inoperable for 7 days, or

   b. One RHR pump may be inoperable for 30 days, or

   c. One low pressure pump or valve (Core Spray or RHR) may be inoperable with an ADS valve inoperable for 7 days, or

   d. One of the two LPCI injection paths may be inoperable for 7 days, or

   e. Two RHR pumps may be inoperable for 7 days, or

   f. Both of the LPCI injection paths may be inoperable for 72 hours, or

   g. HPCI may be inoperable for 14 days, provided RCIC is operable, or

   h. One ADS valve may be inoperable for 14 days, or

   i. Two or more ADS valves may be inoperable for 12 hours.

4. If the requirements or conditions of 3.5.A.1, 2 or 3 cannot be met, an orderly shutdown of the reactor shall be initiated and the reactor shall be placed in a condition in which the affected equipment is not required to be operable within 24 hours.

3. NOTE: Not required to be performed until 12 hours after reactor steam pressure and flow are adequate to perform the test.

   a. Demonstrate, quarterly, with reactor pressure ≤1120 psig and ≥950 psig, the HPCI pump can develop a flow rate ≥2700 gpm against a system head corresponding to reactor pressure, when tested in accordance with the Inservice Testing Program.

   b. Demonstrate, once per operating cycle, with reactor pressure ≤165 psig, the HPCI pump can develop a flow rate ≥2700 gpm against a system head corresponding to reactor pressure.

4. Perform the following tests:

Item	Frequency
ADS Valve Operability	Each Operating Cycle
NOTE: Safety/relief valve operability is verified by cycling the valve and observing a compensating change in turbine bypass or control valve position.	
ADS Inhibit Switch Operability	Each Operating Cycle
Perform a simulated automatic actuation test (including HPCI transfer to the suppression pool and automatic restart on subsequent ~~low~~ **[Low Low]** reactor water level)	Each Operating Cycle

D. RCIC

1. Except as specified in 3.5.D.2 and 3 below, the Reactor Core Isolation Cooling System (RCIC) shall be operable whenever irradiated fuel is in the reactor vessel and reactor pressure is greater than 150 psig, except during reactor vessel hydrostatic or leakage tests.

2. RCIC may be inoperable for 14 days, provided HPCI is operable.

3. The controls for the automatic transfer of the pump suction may be inoperable for 30 days, if the pump suction is aligned to the suppression pool.

4. If the requirements or conditions of 3.5.D.1, 2 or 3 cannot be met, an orderly shutdown of the reactor shall be initiated and the reactor shall be placed in a condition in which the affected equipment is not required to be operable within 24 hours.

D. RCIC

1. NOTE: Not required to be performed until 12 hours after reactor steam pressure and flow are adequate to perform the test.

   a. Demonstrate, quarterly, with reactor pressure ≤1120 psig and ≥950 psig, the RCIC pump can develop a flow rate ≥400 gpm against a system head corresponding to reactor pressure, when tested in accordance with the Inservice Testing Program.

   b. Demonstrate, once per operating cycle, with reactor pressure ≤165 psig, the RCIC pump can develop a flow rate ≥400 gpm against a system head corresponding to reactor pressure.

2. Perform a simulated automatic actuation test (including transfer to suppression pool and automatic restart on subsequent ~~low~~ **[Low Low]** reactor water level) each refueling ~~outage~~ **[interval]**.

2)Otherwise be in Hot Shutdown within the next 12 hours and in Cold Shutdown within the following 24 hours.

c) Any time irradiated fuel is in the reactor vessel and reactor water temperature is above 212°F at least one channel of the required leakage detection instrumentation shall be operable. If all channels of both systems (Drywell Floor Drain Sump Monitoring System and drywell Particulate radioactivity monitoring system) are inoperable, restore at least one channel of the required leakage detection instrumentation to operable status within 1 hour, or be in Hot Shutdown within the the next 12 hours and in Cold Shutdown within the following 24 hours.

E. Safety/Relief Valves

1. During power operating conditions and whenever reactor coolant pressure is greater than 110 psig and temperature is greater than 345°F the safety valve function (self actuation) of seven safety/relief valves shall be operable (note: Low-Low Set and ADS requirements are located in Specification 3.2.H. and 3.5.A, respectively).

   Valves shall be set as follows:

   8 valves at ≤1120 psig

2. If Specification 3.6.E.1 is not met, initiate an orderly shutdown and have reactor coolant pressure and temperature reduced to 110 psig or less and 345°F or less within 24 hours.

E. Safety/Relief Valves

1. a. Safety/relief valves shall be tested or replaced each refueling ~~outage~~ **[interval]** in accordance with the Inservice Testing Program.

   b. At least two of the safety/relief valves shall be disassembled and inspected each refueling ~~outage~~ **[interval]**.

   c. The integrity of the safety/relief valve bellows shall be continuously monitored.

   d. The operability of the bellows monitoring system shall be demonstrated each operating cycle.

2. Low-Low Set Logic surveillance shall be performed in accordance with Table 4.2.1.

H. Snubbers

1. Except as permitted below, all safety related snubbers shall be operable whenever the supported system is required to be Operable.

2. With one or more snubbers made or found to be inoperable for any reason when Operability is required, within 72 hours:

   a. Replace or restore the inoperable snubbers to Operable status and perform an engineering evaluation or inspection of the supported components, or

   b. Determine through engineering evaluation that the as-found condition of the snubber had no adverse effect on the supported components and that they would retain their structural integrity in the event of design basis seismic event, or

   c. Declare the supported system inoperable and take the action required by the Technical Specifications for inoperability of that system.

H. Snubbers

The following surveillance requirements apply to all safety related snubbers.

1. Visual inspections:

   Snubbers are categorized as inaccessible or accessible during reactor operation. Each of these categories (inaccessible or accessible) may be inspected independently according to the schedule determined by Table 4.6-1. The visual inspection interval for each type of snubber shall be determined based upon the criteria provided in Table 4.6-1. The initial inspection interval for new types of snubbers shall be established at ~~18~~ **[24]** months +25%.

3. Functional testing of snubbers shall be conducted at least once per ~~18~~ **[24]** months +25% during cold shutdown. Ten percent of the total number of each brand of snubber shall be functionally tested either in place or in a bench test. For each snubber that does not meet the functional test acceptance criteria in Specification 4.6.H.4 below, an additional ten percent of that brand shall be functionally tested until no more failures are found or all snubbers of that brand have been tested.

   The representative sample selected for functional testing shall include the various configurations, operating environments, and the range of size and capacity of the snubbers.

   In addition to the regular sample and specified re-samples, snubbers which failed the previous functional test shall be retested during the next test period if they were reinstalled as a safety-related snubber. If a spare snubber has been installed in place of a failed safety related snubber, it shall be tested during the next period.

   If any snubber selected for functional testing either fails to lockup or fails to move (i.e. frozen in place) the cause shall be evaluated and if caused by manufacturer or design deficiency, all snubbers of the same design subject to the same defect shall be functionally tested.

4. Hydraulic snubber functional tests shall verify that:

   a. Activation (restraining action) is achieved within the specified range of velocity or acceleration in both tension and compression.

   b. Snubber bleed, or release rate, where required, is within the specified range in compression or tension.

5. For any snubbers found inoperable, an engineering evaluation or inspection shall be performed on the components which are supported by the snubbers. The purpose of this engineering evaluation or inspection shall be to determine if the components supported by the snubbers were adversely affected by the inoperability of the snubbers in order to ensure that the supported component remains capable of meeting the designed service.

6. The installation and maintenance records for each safety related snubber shall be reviewed once every ~~18~~ **[24]** months to verify that the indicated service life will not be exceeded prior to the next scheduled snubber service life review. If the indicated service life will be exceeded, the snubber service life shall be re-evaluated or the snubber shall be replaced or reconditioned to extend its service life beyond the date of the next scheduled service life review. This reevaluation, replacement, or reconditioning shall be indicated in the records.

3.7 CONTAINMENT SYSTEMS

Applicability :

Applies to the operating status of the primary and secondary containment systems.

Objective :

To assure the integrity of the primary and secondary containment systems.

Specification :

A. Primary Containment.

1. Suppression Pool Volume and Temperature

   When irradiated fuel is in the reactor vessel and either the reactor water temperature is greater than 212°F or work is being done which has the potential to drain the vessel, the following requirements shall be met, except as permitted by Specification 3.5.E.2:

   a. Water temperature during normal operating shall be ≤90°F.

   b. Water temperature during test operation which adds heat to the suppression pool shall be ≤100°F and shall not be >90°F for more than 24 hours.

   c. If the suppression chamber water temperature is >110°F, the reactor shall be scrammed immediately. Power operation shall not be resumed until the pool temperature is ≤90°F.

4.7 CONTAINMENT SYSTEMS

Applicability :

Applies to the primary and secondary containment integrity.

Objective :

To verify the integrity of the primary and secondary containment.

Specification :

A. Primary Containment

1. Suppression Pool Volume and Temperature

   a. The suppression chamber water temperature shall be checked once per day.

   b. Whenever there is indication of relief valve operation which adds heat to the suppression pool, the pool temperature shall be continually monitored and also observed and logged every 5 minutes until the heat addition is terminated.

   c. A visual inspection of the suppression chamber interior including water line regions and the interior painted surfaces above the water line shall be made at each refueling ~~outage~~ **[interval]**.

b. If both standby gas treatment system circuits are not operable, within 36 hours the reactor shall be placed in a condition for which the standby gas treatment system is not required in accordance with Specification 3.7.C.2.(a) through (d).

2. Performance Requirements

a. Periodic Requirements

(1) The results of the in-place DOP tests at 3500 cfm (±10%) on HEPA filters shall show ≤1% DOP penetration.

(2) The results of in-place halogenated hydrocarbon tests at 3500 cfm (±10%) on charcoal banks shall show ≤1% penetration.

(3) The results of laboratory carbon sample analysis shall show ≤5% methyl iodine penetration when tested in accordance with ASTM D3803-1989 at 30°C, 95% relative humidity.

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2. Performance Requirement Tests

a. At least once per 720 hours of system operation; or once per operating cycle, but not to exceed ~~18~~ **[24]** months, whichever occurs first; or following painting, fire, or chemical release in any ventilation zone communicating with the system while the system is operating that could contaminate the HEPA filters or charcoal absorbers, perform the following:

(1) In-place DOP test the HEPA filter banks.

(2) In-place test the charcoal adsorber banks with halogenated hydrocarbon tracer

(3) Remove one carbon test sample from the charcoal adsorber in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978. Subject this sample to a laboratory analysis to verify methyl iodine removal efficiency.

b. The system shall be shown to be operable with:

(1) Combined filter pressure drop ≤6 inches water.

(2) Inline heater power output ≥18kW.

c. The system shall be shown to be operable with automatic initiation upon receipt of the following inputs:

(a) Low Low Reactor Water Level, or

(b) High drywell pressure, or

(c) Reactor building ventilation plenum high radiation, or

(d) Refueling floor high radiation

3. Post Maintenance Requirements

a. After any maintenance or testing that could affect the HEPA filter or HEPA filter mounting frame leak tight integrity, the results of the in-place DOP tests at 3500 cfm (±10%) on HEPA filters shall show ≤1% DOP penetration.

b. After any maintenance or testing that could affect the charcoal adsorber leak tight integrity, the results of in-place halogenated hydrocarbon tests at 3500 cfm(±10%) on charcoal adsorber banks shall show ≤1% penetration.

b. ~~At least~~ **[O]**~~o~~nce per ~~operating cycle, but not to exceed 18 months~~ **[quarter]**, ~~the following conditions shall be demonstrated for each standby gas treatment system:~~ **[demonstrate that the]**

~~(1)~~ Pressure drop across the combined filters of each standby gas treatment system circuit shall be measured at 3500 cfm (±10%) flow rate.

~~(2) Operability of inline heater at nominal rated power shall be verified.~~

[c. Once per operating cycle the operability of the inline heater at nominal rated power shall be verified for each standby gas treatment system.]

[d.]~~c~~. At least once per operating cycle, automatic initiation of each standby gas treatment system circuit shall be demonstrated.

3. Post Maintenance Testing

a. After any maintenance or testing that could affect the leak tight integrity of the HEPA filters, perform in-place DOP tests on the HEPA filters.

b. After any maintenance or testing that could affect the leak tight integrity of the charcoal adsorber banks, perform halogenated hydrocarbon tests on the charcoal absorbers.

C. Secondary Containment

1. Except as specified in 3.7.C.2 and 3.7.C.3, Secondary Containment Integrity shall be maintained during all modes of plant operation.

2. Secondary Containment Integrity is not required when all of the following conditions are satisfied:

   a. The reactor is subcritical and Specification 3.3.A is met.

   b. The reactor water temperature is below 212°F.

   c. No activity is being performed which can reduce the shutdown margin below that specified in Specification 3.3.A

   d. The fuel cask or irradiated fuel is not being moved within the reactor building.

3. With an inoperable secondary containment isolation damper, restore the inoperable damper to operable status or isolate the affected duct by use of a closed damper or blind flange within eight hours.

4. If Specifications 3.7.C.1 through 3.7.C.3 cannot be met, initiate a normal orderly shutdown and have the reactor in the Cold Shutdown condition within 36 hours. Alterations of the

C. Secondary Containment

1. Secondary containment surveillance shall be performed as indicated below:

   a. Secondary containment capability to maintain at least a 1/4 inch of water vacuum under calm wind (u <5 mph) conditions with a filter train flow rate of ≤4,000 scfm, shall be demonstrated at each refueling ~~outage~~ **[interval]** prior to refueling. If calm wind conditions do not exist during this testing, test data is to be corrected to calm wind conditions.

   b. Verification that each automatic damper actuates to its isolation position shall be performed:

      (1) Each refueling ~~outage~~**[interval]**.

      (2) After maintenance, repair or replacement work is performed on the damper or its associated actuator, control circuit, or power circuit.

4. Station Battery System

   If one of the two 125 V battery systems or one of the two 250 V battery systems is made or found to be inoperable for any reason, an orderly shutdown of the reactor shall be initiated and the reactor water temperature shall be reduced to less than 212°F within 24 hours unless such battery systems are sooner made operable

4. Station Battery System

   a. Every week the specific gravity and voltage of the pilot cell and temperature of the adjacent cells and overall battery voltage shall be measured.

   b. Every three months the measurements shall be made of voltage of each cell to nearest 0.01 volt, specific gravity of each cell, and temperature of every fifth cell.

   c. Every refueling ~~outage~~ **[interval]**, the station batteries shall be subjected to a rated load discharge test. Determine specific gravity and voltage of each cell after the discharge.

5. 24V Battery Systems

   From and after the date that one of the two 24V battery systems is made or found to be inoperable for any reason, refer to Specification 3.2 for appropriate action.

5. 24V Battery Systems

   a. Every week the specific gravity and voltage of the pilot cell and temperature of adjacent cells and overall battery voltage shall be measured.

   b. Every three months the measurements shall be made of voltage of each cell to nearest 0.01 volt, specific gravity of each cell, and temperature of every fifth cell.

2. Performance Requirements

a. Acceptance Criteria - Periodic Requirements

(1) The results of the in-place DOP tests at 1000 cfm (±10%) shall show ≤1% DOP penetration on each individual HEPA filter and shall show ≤0.05% DOP penetration on the combined HEPA filters.

(2) The results of in-place halogenated hydrocarbon tests at 1000 cfm (±10%) shall show ≤1% penetration on each individual charcoal adsorber and shall show ≤0.05% penetration on the combined charcoal banks.

(3) The results of laboratory carbon sample analysis shall show ≤0.5% methyl iodide penetration when tested at 30°C and 95% relative humidity.

2. Performance Requirement Test

The in-place performance testing of HEPA filter banks and charcoal adsorber banks shall be conducted in accordance with Sections 10 and 11 of ASME N510-1989. The carbon sample test for methyl iodide shall be conducted in accordance with ASTM D 3803-1989. Sample removal shall be in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978.

a. At least once per operating cycle, but not to exceed ~~18~~ **[24]** months; or following painting, fire, or chemical release while the system is operating that could contaminate the HEPA filters or charcoal adsorbers, perform the following:

(1) In-place DOP test the HEPA filter banks.

(2) In-place test the charcoal adsorber banks with halogenated hydrocarbon tracer.

(3) Remove one carbon test sample from each charcoal adsorber bank. Subject this sample to a laboratory analysis to verify methyl iodide removal efficiency.

(4) Initiate from the control room 1000 cfm (±10%) flow through both trains of the emergency filtration treatment system.

c. The system shall be shown to be operable with:

(1) Combined filter pressure drop ≤8 inches water.

(2) Inlet heater power output 5kw±10%.

(3) Automatic initiation upon receipt of a high radiation signal.

3. Post Maintenance Requirements

a. After any maintenance or testing that could affect the HEPA filter or HEPA filter mounting frame leak tight integrity, the results of the in-place DOP tests at 1000 cfm (±10%) shall show ≤1% DOP penetration on each individual HEPA filter and shall show ≤0.05% DOP penetration on the combined HEPA filters.

b. After any maintenance or testing that could affect the charcoal adsorber leak tight integrity, the results of in-place halogenated hydrocarbon tests at 1000 cfm (±10%) shall show ≤1% penetration on each individual charcoal adsorber and shall show ≤0.05% penetration on the combined charcoal adsorber banks.

c. At least once per operating cycle, but not to exceed ~~18~~ **[24]**months, the following conditions shall be demonstrated for each emergency filtration system train:

(1) Pressure drop across the combined filters of each train shall be measured at 1000 cfm (±10%) flow rate.

(2) Operability of inlet heater at nominal rated power shall be verified.

(3) Verify that on a simulated high radiation signal, the train switches to the pressurization mode of operation and the control room is maintained at a positive pressure with respect to adjacent areas at the design flow rate of 1000 cfm (±10%).

3. Post Maintenance Testing

a. After any maintenance or testing that could affect the leak tight integrity of the HEPA filters, perform in-place DOP tests on the HEPA filters.

b. After any maintenance or testing that could affect the leak tight integrity of the charcoal adsorber banks, perform halogenated hydrocarbon tests on the charcoal adsorbers.