TABLE 4.1.1 (Cont'd.)

MINIMUM CHECK, CALIBRATION AND TEST FREQUENCY FOR PROTECTIVE INSTRUMENTATION

Instrument Channel	Check	Calibrate	Test	Remarks (Applies to Test and Calibration)
13. DELETED				
14. High Radiation in Reactor Building				
Operating Floor	1/s	1/3 mo	1/3 mo	Using gamma source for
Ventilation Exhaust	1/s	1/3 mo	1/3 mo	calibration
15. High Radiation on Air Ejector Off-Gas		1/3 mo	1/3 mo	Using built-in calibration equipment
	1/s			Channel Check
	1/mo			Source check
		1/24 mo		Calibration according to established station calibration procedures
			1/24 mo	Note a
16. IRM Level	N/A	Each startup	N/A	
IRM Scram	*	*	*	Using built-in calibration equipment
17. IRM Blocks	N/A	Prior to startup and shutdown	Prior to startup and shutdown	Upscale and downscale
18. Condenser Low Vacuum	N/A	**1/24 mo**	**1/24 mo**	
19. Manual Scram Buttons	N/A	N/A	1/3 mo	
20. High Temperature Main Steamline Tunnel	N/A	**1/24 mo**	Each refueling outage	Using heat source box

TABLE 4.1.1 (cont'd)

Instrument Channel	Check	Calibrate	Test	Remarks (Applies to Test and Calibration)
21. SRM	*	*	*	Using built-in calibration equipment
22. Isolation Condenser High Flow ΔP (Steam and Water)	N/A	1/3 mo	1/3 mo	By application of test pressure
23. Turbine Trip Scram	N/A	N/A	1/3 mo	
24. Generator Load Rejection Scram	N/A	1/3 mo	1/3 mo	
25. Recirculation Loop Flow	N/A	**1/24 mo**	N/A	By application of test pressure
26. Low Reactor Pressure Core Spray Valve Permissive	N/A	1/3 mo	1/3 mo	By application of test pressure
27. Scram Discharge Volume (Rod Block)				
a) Water level high	N/A	Each re-fueling outage	1/3 mo	Calibrate by varying level in sensor column
b) Scram Trip bypass	N/A	N/A	Each re fueling outage	
28. Loss of Power				
a) 4.16 KV Emergency Bus Undervoltage (Loss of voltage)	1/d	1/24 mo	1/mo	
b) 4.16 KV Emergency Bus Undervoltage (Degraded Voltage)	1/d	1/24 mo	1/mo	

TABLE 4.1.2

MINIMUM TEST FREQUENCIES FOR TRIP SYSTEMS

Trip System	Minimum Test Frequency
1) Dual Channel (Scram)	Same as for respective instrumentation in Table 4.1.1
2) Rod Block	Same as for respective instrumentation in Table 4.1.1
3) DELETED	DELETED
4) Automatic Depressurization each trip system, one at a time	Each refueling outage
5) MSIV Closure, each closure logic circuit independently (1 valve at a time)	Each refueling outage
6) Core Spray, each trip system, one at a time	1/3 mo and each refueling outage
7) Primary Containment Isolation, each closure circuit independently (1 valve at a time)	Each refueling outage
8) Refueling Interlocks	Prior to each refueling operation
9) Isolation Condenser Actuation and Isolation, each trip circuit independently (1 valve at a time)	Each refueling outage
10) Reactor Building Isolation and SGTS Initiation	Same as for respective instrumentation in Table 4.1.1
11) Condenser Vacuum Pump Isolation	Prior to each startup
12) Air Ejector Offgas Line Isolation	Each refueling outage
13) Containment Vent and Purge Isolation	**1/24 mo**

* G. Primary Coolant System Pressure Isolation Valves Specification:

1. Periodic leakage testing [a] on each valve listed in Table 4.3.1 shall be accomplished prior to exceeding 600 psig reactor pressure every time the plant is placed in the cold shutdown condition for refueling, each time the plant is placed in a cold shutdown condition for 72 hours if testing has not been accomplished in the preceding 9 months, whenever the valve is moved whether by manual actuation or due to flow conditions, and after returning the valve to service after maintenance, repair or replacement work is performed.

H. Reactor Coolant System Leakage

1. Unidentified leakage rate shall be calculated at least once every 4 hours.

2. Total leakage rate (identified and unidentified) shall be calculated at least once every 8 hours.

3. A channel calibration of the primary containment sump flow integrator and the primary containment equipment drain tank flow integrator shall be conducted at least once per **24** months.

I. An inservice inspection program for piping identified in NRC Generic Letter 88-01 shall be performed in accordance with the NRC staff positions on schedule, methods, personnel, and sample expansion included in the generic letter or in accordance with alternate measures approved by the NRC staff.

Bases:

Data is available relating neutron fluence ($E > 1.0MeV$) and the change in the Reference Nil-Ductility Transition Temperature (RT_{NDT}). The pressure-temperature (P-T) operating curves (a),(b) and (c) in Figure 3.3.1 were developed based on the results of testing and evaluation of specimens removed from the vessel after 8.38 EFPY of operation. Similar testing and analysis will be performed throughout vessel life to monitor the effects of neutron irradiation on the reactor vessel shell materials.

The inspection program will reveal problem areas should they occur, before a leak develops. In addition, extensive visual inspection for leaks will be made on critical systems. Oyster Creek was designed and constructed prior to

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[a] To satisfy ALARA requirements, leakage may be measured indirectly (as from the performance of pressure indicators) if accomplished in accordance with approved procedures and supported by computations showing that the method is capable of demonstrating valve compliance with the leakage criteria.

* NRC Order dated April 20, 1981.

4.4 EMERGENCY COOLING

Applicability: Applies to surveillance requirements for the emergency cooling systems.

Objective: To verify the operability of the emergency cooling systems.

Specification: Surveillance of the emergency cooling systems shall be performed as follows:

Item	Frequency
A. Core Spray System	
1. Pump Operability	Once/month. Also after major maintenance and prior to startup following a refueling outage.
2. Motor operated valve operability	Once/month
3. Automatic actuation test	Every three months
4. Pump compartment water-tight doors closed	Once/week and after each entry
5. Core spray header ΔP instrumentation	
check	Once/day
calibrate	Once/3 months
test	Once/3 months
B. Automatic Depressurization	
1. Valve operability	Once every **24 months***
2. Automatic actuation test	Every refueling outage
C. Containment Cooling System	
1. Pump Operability	Once/month. Also after major maintenance and prior to startup following a refueling outage.

*Valve operability shall be demonstrated at system operating pressure prior to exceeding 5 percent power, **following a refueling outage**.

(3) At least four of the suppression chamber - drywell vacuum breakers shall be inspected. If deficiencies are found, all vacuum breakers shall be inspected and deficiencies corrected such that Specification 3.5.A.5.a can be met.

(4) A drywell to suppression chamber leak rate test **shall be performed once every 24** months to demonstrate, that with an initial differential pressure of not less than 1.0 psi, the differential pressure decay rate shall not exceed the equivalent of air flow through a 2-inch orifice.

G. Reactor Building

1. Secondary containment capability tests shall be conducted after isolating the reactor building and placing either Standby Gas Treatment System filter train in operation.

2. The tests shall be performed at least once per operating cycle (interval not to exceed 20 months) and shall demonstrate the capability to maintain a ¼ inch of water vacuum under calm wind conditions with a Standby Gas Treatment System Filter train flow rate of not more than 4000 cfm.

3. A secondary containment capability test shall be conducted at each refueling outage prior to refueling.

4. The results of the secondary containment capability tests shall be in the subject of a summary technical report which can be included in the reports specified in Section 6.

H. Standby Gas Treatment System

1. The capability of each Standby Gas Treatment System circuit shall be demonstrated by:

a. At least once per 18 months, after every 720 hours of operation, and following significant painting, fire, or chemical release in the reactor building during operation of the Standby Gas Treatment System by verifying that:

(1) The charcoal absorbers remove $\geq$99% of a halogenated hydrocarbon refrigerant test gas and the HEPA filters remove $\geq$99% of the DOP in a cold DOP test when tested in accordance with ANSI N510-1975.