

1.1 Definitions (continued)

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DOSE EQUIVALENT I-131	<p>DOSE EQUIVALENT I-131 shall be that amount of I-131 (curies) that alone would produce the same committed effective dose equivalent (CEDE) dose as the quantity and isotopic mixture of I-131, I-132, I-133, I-134, and I-135 actually present.</p> <p>The CEDE dose conversion factors used for this calculation shall be those listed in Table 2.1 of EPA Federal Guidance Report No. 11, "Limiting Values of Radionuclide Intake and Air Concentration and Dose Conversion Factors for Inhalation, Submersion, and Ingestion," 1988.</p>
$\bar{E}$ - AVERAGE DISINTEGRATION ENERGY	<p><math>\bar{E}</math> shall be the average (weighted in proportion to the concentration of each radionuclide in the reactor coolant at the time of sampling) of the sum of the average beta and gamma energies per disintegration (in MeV) for isotopes, other than iodines, with half lives &gt; 10 minutes, making up at least 95% of the total noniodine activity in the coolant.</p>
$L_a$	<p>The maximum allowable primary containment leakage rate, <math>L_a</math>, shall be 0.1% of primary containment air weight per day at the calculated peak containment pressure (<math>P_a</math>).</p>
LEAKAGE	<p>LEAKAGE shall be:</p> <p>a. <u>Identified LEAKAGE</u></p> <p>1. LEAKAGE, such as that from pump seals or valve packing (except for leakage into closed systems and reactor coolant pump (RCP) seal water injection or leakoff), that is captured and conducted to collection systems or a sump or collecting tank;</p> <p>(Leakage into closed systems is leakage that can be accounted for and contained by a</p>

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### 3.3 INSTRUMENTATION

#### 3.3.7 Control Room Ventilation System (CRVS) Actuation Instrumentation

LCO 3.3.7            The CRVS actuation instrumentation for each Function in Table 3.3.7-1 shall be OPERABLE.

APPLICABILITY:    MODES 1, 2, 3, 4

#### ACTIONS

-----NOTE-----  
Separate Condition entry is allowed for each Function.  
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CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more Functions with one channel or train inoperable.	A.1 Place CRVS in CRVS Mode 3.	7 days
B. One or more Functions with two channels or two trains inoperable.	B.1.1 Place CRVS in CRVS Mode 3.	72 hours
C. Required Action and associated Completion Time for Condition A or B not met.	C.1 Be in MODE 3.	6 hours
	<u>AND</u> C.2 Be in MODE 5.	36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.11.1	Operate each CRVS train for $\geq 15$ minutes.	31 days
SR 3.7.11.2	Perform required CRVS filter testing in accordance with the Ventilation Filter Testing Program (VFTP).	In accordance with VFTP
SR 3.7.11.3	Verify each CRVS train actuates on an actual or simulated actuation signal.	24 months
SR 3.7.11.4	Verify one CRVS train can maintain a slight positive pressure relative to the adjacent enclosed area during CRVS Mode 3 operation at a makeup flow rate of $\geq 1500$ cfm.	24 months on a STAGGERED TEST BASIS

## 5.5 Programs and Manuals

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### 5.5.10 Ventilation Filter Testing Program (VFTP)

This program provides controls for implementation of required testing of the ventilation filter function for the Control Room Ventilation System and Containment Fan Cooler Units.

Applicable tests described in Specifications 5.5.10.a, 5.5.10.b, 5.5.10.c and 5.5.10.d shall be performed:

- 1) After 720 hours of charcoal adsorber use since the last test; and,
- 2) Every 24 months for the Control Room Ventilation System, and Containment Fan Cooler Units; and,
- 3) After each complete or partial replacement of the HEPA filter train or charcoal adsorber filter; and,
- 4) After any structural maintenance on the system housing that could alter system integrity; and,
- 5) After significant painting, fire, or chemical release in any ventilation zone communicating with the system while it is in operation.

SR 3.0.2 is applicable to the Ventilation Filter Testing Program.

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5.5 Programs and Manuals

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5.5.10 Ventilation Filter Testing Program (VFTP) (continued)

- a. Demonstrate for each system that an inplace test of the high efficiency particulate air (HEPA) filters shows the specified penetration and system bypass leakage when tested in accordance with the referenced standard at the flowrate specified below.

<u>Ventilation System</u>	<u>Removal Efficiency</u>	<u>Flowrate (cfm)</u>	<u>Reference Standard</u>
Control Room Ventilation System	$\geq 99\%$	80% to 120% of design accident rate	Regulatory Guide 1.52, Rev 2, Sections C.5.a and C.5.c
Containment Fan Cooler Units	$\geq 99\%$	80% to 120% of design accident rate	Regulatory Guide 1.52, Rev 2, Sections C.5.a and C.5.c

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5.5 Programs and Manuals

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5.5.10 Ventilation Filter Testing Program (VFTP) (continued)

- b. Demonstrate for each system that an inplace test of the charcoal adsorber shows the specified penetration and system bypass leakage when tested in accordance with the referenced standard at the flowrate specified below.

<u>Ventilation System</u>	<u>Removal Efficiency</u>	<u>Flowrate (cfm)</u>	<u>Reference Standard</u>
Control Room Ventilation System	$\geq 99\%$	80% to 120% of design accident rate	Regulatory Guide 1.52, Rev 2, Sections C.5.a and C.5.d
Containment Fan Cooler Units	$\geq 99\%$	80% to 120% of design accident rate	Regulatory Guide 1.52, Rev 2, Sections C.5.a and C.5.d

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## 5.5 Programs and Manuals

### 5.5.10 Ventilation Filter Testing Program (VFTP) (continued)

- c. Demonstrate for each system that a laboratory test of a sample of the charcoal adsorber shows the methyl iodide removal efficiency specified below when tested in accordance with ASTM D3803-1989, subject to clarification below, at a temperature of 86°F and a relative humidity of 95%.

Ventilation System	Methyl iodide removal efficiency (%):	ASTM D3803-1989 Clarification
Control Room Ventilation System	$\geq 95.5$	78 ft/min face velocity
Containment Fan Cooler Units	$\geq 85$	59 ft/min face velocity

Note: For the 1" beds, the Control Room Ventilation System methyl iodide removal efficiency is verified greater than or equal to 93% rather than 95.5% at a face velocity of 50 ft/min under the above requirements. This is done prior to fuel movement in Refuel Outage 12 and every 6 months after Refuel Outage 12 until the end of Refuel Outage 13 or the 2" beds are installed.

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5.5 Programs and Manuals5.5.10 Ventilation Filter Testing Program (VFTP) (continued)

- d. Demonstrate for each system that the pressure drop across the combined HEPA filters, the demisters and prefilters (if installed), and the charcoal adsorbers is less than the value specified below when tested at the flowrate specified below.

<u>Ventilation System</u>	<u>Delta P</u> <u>(inches wg)</u>	<u>Flowrate (cfm):</u>
Control Room Ventilation System	6	$\geq$ 90% of design accident rate
Containment Fan Cooler Units	6	$\geq$ 90% of design accident rate

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