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Table 14.11-1

CONTROL ROD DROP ACCIDENT
FISSION PRODUCT RELEASE RATE TO ENVIRONS
(INITIAL CORE)

Time After Accident	Fission Product Activity Being Released to Environment	
	Noble Gases (curies/sec)	Iodines (curies/sec)
1 min	1.7×10^0	1.8×10^{-5}
30 min	1.1×10^0	1.7×10^{-5}
1 hr	7.4×10^{-1}	1.6×10^{-5}
2 hr	3.4×10^{-1}	1.4×10^{-5}
12 hr	1.4×10^{-4}	5.0×10^{-6}
1 day	1.5×10^{-7}	1.7×10^{-6}
2 days	1.6×10^{-16}	2.4×10^{-7}
5 days	7.9×10^{-39}	8.4×10^{-10}

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TABLE 14.11-2
CONTROL ROD DROP ACCIDENT RADIOLOGICAL EFFECTS
(INITIAL CORE)

Meteorology Distance (meters)	VS-1	MS-1 0.2 Hour Cloud Gamma Doses (rem)	N-1 0.2 Hour Cloud Gamma Doses (rem)	N-5 0.2 Hour Cloud Gamma Doses (rem)	U-1 0.2 Hour Cloud Gamma Doses (rem)	U-5 0.2 Hour Cloud Gamma Doses (rem)
1,400*	4.4×10^{-3}	4.4×10^{-3}	5.6×10^{-3}	7.8×10^{-4}	9.5×10^{-3}	1.3×10^{-3}
3,000	2.7×10^{-3}	2.9×10^{-3}	5.1×10^{-3}	7.3×10^{-4}	4.6×10^{-3}	7.6×10^{-3}
8,000	1.3×10^{-3}	1.4×10^{-3}	1.8×10^{-3}	4.4×10^{-4}	9.5×10^{-4}	2.2×10^{-4}
16,000	6.4×10^{-4}	8.0×10^{-4}	5.8×10^{-4}	2.0×10^{-4}	2.5×10^{-4}	8.2×10^{-5}
0-2 Hour Thyroid Inhalation Doses (rem)						
1,400*	a	a	1.3×10^{-5}	1.4×10^{-7}	2.4×10^{-4}	2.7×10^{-5}
3,000	a	2.5×10^{-10}	1.1×10^{-4}	9.1×10^{-6}	1.2×10^{-5}	1.7×10^{-5}
8,000	a	8.7×10^{-6}	5.8×10^{-5}	1.0×10^{-5}	2.7×10^{-5}	4.9×10^{-6}
16,000	a	8.4×10^{-6}	2.4×10^{-5}	4.7×10^{-6}	9.6×10^{-6}	1.8×10^{-6}
0-24 Hour Cloud Gamma Doses (rem)						
1,400	5.4×10^{-3}	5.4×10^{-3}	7.1×10^{-3}	9.8×10^{-4}	1.2×10^{-2}	1.7×10^{-3}
3,000	3.5×10^{-3}	3.6×10^{-3}	6.4×10^{-3}	9.1×10^{-4}	5.6×10^{-3}	9.6×10^{-4}
8,000	1.6×10^{-3}	1.8×10^{-3}	2.4×10^{-3}	5.4×10^{-4}	1.2×10^{-3}	2.7×10^{-4}
16,000	8.0×10^{-4}	1.0×10^{-3}	7.5×10^{-4}	2.4×10^{-4}	3.1×10^{-4}	9.8×10^{-5}
0-24 Hour Thyroid Inhalation Doses (rem)						
1,400*	a	a	5.5×10^{-5}	6.0×10^{-7}	1.0×10^{-3}	1.1×10^{-4}
3,000	a	1.1×10^{-9}	4.6×10^{-4}	3.8×10^{-5}	4.9×10^{-4}	7.3×10^{-5}
8,000	a	3.8×10^{-6}	2.7×10^{-4}	4.4×10^{-5}	1.2×10^{-4}	2.2×10^{-5}
16,000	a	3.5×10^{-5}	1.0×10^{-4}	2.0×10^{-5}	4.2×10^{-5}	7.8×10^{-6}

Symbol Definitions:

VS-1 - Very stable 1m/sec winds
MS-1 - Moderately stable 1m/sec winds
N-1 - Neutral 1m/sec winds
N-5 - Neutral 5m/sec winds
U-1 - Unstable 1m/sec winds
U-5 - Unstable 5m/sec winds

* - Nearest site boundary
a - Dose value 10^{-10}

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Table 14.11-3

LOSS-OF-COOLANT ACCIDENT
PRIMARY CONTAINMENT RESPONSE SUMMARY

Case	RHR Loops	RHR HX	RHR Pumps	Service Water Pumps	Pressure Suppression Chamber Cooling	Core Spray (gpm)	Peak Pool Temperature (°F)	Secondary Peak Pressure (psig)
A	2	4	4	4	30,000	6250	158	8.0
B	2	2	2	2	20,000	6250	169	9.8
C	1	2	2	2	16,000	6250	173	10.7
C*	1	2	2	2	11,700	5600	172	9.0

*Reanalysis based on NEDC-32484P, Revision 2.

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Table 14.11-4

INVENTORY IN PRIMARY CONTAINMENT AVAILABLE FOR LEAKAGE

Isotope	Activity (Ci)	λ (hr ⁻¹)	Isotope	Activity (Ci)	λ (hr ⁻¹)
131 _I	7.7173E7	3.59E-3	85 _{Kr}	1.3977E6	7.34E-6
132 _I	1.1455E8	3.01E-1	87 _{Kr}	7.6039E7	5.47E-1
133 _I	1.8416E8	3.30E-2	88 _{Kr}	1.0720E8	2.48E-1
134 _I	2.0719E8	7.88E-1	89 _{Kr}	1.4002E8	1.31E1
135 _I	1.7438E8	1.03E-1	131 _{Xe} m	1.1873E6	2.41E-3
131 _I *	3.3922E6	3.59E-3	133 _{Xe} m	5.7251E6	1.28E-2
132 _I *	5.0351E6	3.01E-1	133 _{Xe}	2.0252E8	5.48E-3
133 _I *	8.0945E6	3.30E-2	135 _{Xe} m	3.1599E7	2.65E0
134 _I *	9.1072E6	7.88E-1	135 _{Xe}	1.9842E8	7.57E-2
135 _I *	7.6652E6	1.03E-1	137 _{Xe}	1.8343E8	1.09E1
85 _{Kr} m	3.8936E7	1.58E-1	138 _{Xe}	1.8795E8	2.93E0

Note: * denotes organic form, m denotes metastable state

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Table 14.11-5

(Deleted by Amendment 17)

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Table 14.11-6

(Deleted by Amendment 17)

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Table 14.11-7

(Deleted by Amendment 17)

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Table 14.11-8

VALUES FOR X/Q FOR ACCIDENT DOSE CALCULATIONS

Time Period		Control Room (sec/m ³)		Site Boundary (sec/m ³)	LPZ Boundary (sec/m ³)
<u>Top of Stack Releases</u>	Note 1 U1 Intake	Note 2	Note 1 Unit 3 Intake		
0-0.5 hrs*	3.40E-5	3.31E-5	3.02E-5	2.40E-5	1.30E-5
0.5-2 hrs	5.90E-15	5.90E-15	9.64E-7	9.70E-7	8.00E-7
2-8 hrs	4.29E-15	3.80E-15	1.89E-7		8.00E-7
8-24 hrs	3.65E-15	3.02E-15	8.37E-8		4.00E-7
1-4 days	2.58E-15	1.90E-15	1.43E-8		2.00E-7
4-30 days	1.57E-15	9.60E-16	1.13E-9		6.50E-8
*Fumigation					
<u>Base of Stack Releases</u>	Note 1	Note 2	Note 1		
0-2 hrs	3.70E-3	8.89E-4	1.20E-3	1.22E-4	5.65E-5
2-8 hrs	2.38E-3	7.30E-4	7.91E-4		5.65E-5
8-24 hrs	1.91E-3	6.60E-4	6.42E-4		2.24E-5
1-4 days	1.19E-3	5.40E-4	4.09E-4		7.94E-6
4-30 days	5.97E-4	4.00E-4	2.14E-4		1.71E-6
Refuel Floor Damper Bypass (FHA Only)					
0-15 secs		1.46E-4		1.22E-4	5.65E-5
Turb. Bldg. Release (MSLB only)					
		6.56E-4		2.70E-4	1.32E-4

Note 1: The control room X/Q values used in these columns are for the LOCA analysis only.

Note 2: The control room X/Q values used in this column is for all other radiological evaluations.

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Table 14.11-9

(Deleted by Amendment 17)

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Table 14.11-10

(Deleted by Amendment 17)

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Table 14.11-11

STEAM LINE BREAK ACCIDENT
RADIOLOGICAL EFFECTS

Distance (m)	Gamma Dose (rem)	Thyroid Dose (rem)
1465 (EAB)	0.657	32.05
3200 (LPZ)	0.321	15.67