

From: <joseph.bauer@exeloncorp.com>
To: <gfd@nrc.gov>
Date: 2/28/01 2:49PM
Subject: Release Point and Receptor Intake Locations

George,

I typed up the info that Annie had provided.

Joe

<<Power Uprate RAI#1 Revised Table F-17.doc>>

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Revised Table F-17
Atmospheric Dispersion Factors for Control Room Dose Calculations
With Release Points and Receptor Intake Locations

(information provided based on a 02/23/01 teleconference between Exelon and NRC
regarding the Byron and Braidwood Stations power uprate license amendment request)

Event	Byron χ/Q (sec/m ³)	Braidwood χ/Q (sec/m ³)	Release Point*	Receptor Intake*
Steamline Break, Faulted Steam Generator				
0-2 hr	1.70E-2	1.68E-2	RP7/RP8	R3/R4
2-8 hr	1.46E-2	1.44E-2	“	“
8-24 hr	7.24E-3	6.53E-3	“	“
24-96 hr	4.89E-3	4.47E-3	“	“
96-720 hr	3.58E-3	2.96E-3	“	“
Steamline Break, Intact Steam Generators Locked Rotor Locked Rotor with Failed PORV Steam Generator Tube Rupture				
0-0.083 hr	8.79E-3	8.71E-3	RP5/RP6	R1/R2
0.083-2 hr	3.98E-3	4.08E-3	“	R3/R4
2-8 hr	3.48E-3	3.43E-3	“	“
8-24 hr	1.64E-3	1.69E-3	“	“
24-96 hr	1.04E-3	9.78E-4	“	“
96-720 hr	8.96E-4	6.56E-4	“	“
Rod Eject, Containment Leakage				
0-0.0417 hr	9.82E-2	9.53E-2	RP1/RP2	R1/R2
0.0417-2 hr	6.10E-3	6.20E-3	“	R3/R4
2-8 hr	5.30E-3	5.37E-3	“	“
8-24 hr	2.68E-3	2.79E-3	“	“
24-96 hr	2.00E-3	1.82E-3	“	“
96-720 hr	1.53E-3	1.32E-3	“	“
Rod Eject, Steam Releases				
0-0.0417 hr	8.79E-3	8.71E-3	RP5/RP6	R1/R2
0.0417-2 hr	3.98E-3	4.08E-3	“	R3/R4
2-8 hr	3.48E-3	3.43E-3	“	“
8-24 hr	1.64E-3	1.69E-3	“	“
24-96 hr	1.04E-3	9.78E-4	“	“
96-720 hr	8.96E-4	6.56E-4	“	“
Small Line Break Outside Containment				
0-2 hr	2.28E-3	2.48E-3	RP3/RP4	R3/R4
2-8 hr	1.91E-3	1.87E-3	“	“
8-24 hr	8.88E-4	8.11E-4	“	“
24-96 hr	5.97E-4	5.04E-4	“	“
96-720 hr	4.77E-4	3.91E-4	“	“

Large Break LOCA, Containment Leakage				
0-2 hr	6.1E-3	6.2E-3	RP1/RP2	R3/R4
2-8 hr	5.3E-3	5.37E-3	"	"
8-24 hr	2.68E-3	2.79E-3	"	"
24-96 hr	2.0E-3	1.82E-3	"	"
96-720 hr	1.53E-3	1.32E-3	"	"
Large Break LOCA, ECCS Recirculation				
Gas Decay Tank Rupture				
Recycle Holdup Tank Rupture				
Spent Resin Tank Rupture				
Fuel Handling Accident				
0-2 hr	2.28E-3	2.48E-3	RP3/RP4	R3/R4
2-8 hr	1.91E-3	1.87E-3	"	"
8-24 hr	8.88E-4	8.11E-4	"	"
24-96 hr	5.97E-4	5.04E-4	"	"
96-720 hr	4.77E-4	3.91E-4	"	"
Small Break LOCA, Containment Leakage				
0-2 hr	6.10E-3	6.20E-3	RP1/RP2	R3/R4
2-8 hr	5.30E-3	5.37E-3	"	"
8-24 hr	2.68E-3	2.79E-3	"	"
24-96 hr	2.00E-3	1.82E-3	"	"
96-720 hr	1.53E-3	1.32E-3	"	"
Small Break LOCA, Steam Releases				
0.-2 hr	3.98E-3	4.08E-3	RP5/RP6	R3/R4
2-8 hr	3.48E-3	3.43E-3	"	"
8-24 hr	1.64E-3	1.69E-3	"	"
24-96 hr	1.04E-3	9.78E-4	"	"
96-720 hr	8.96E-4	6.56E-4	"	"

* The Release Points and Receptor Intake Locations are taken from Drawing M-5, "General Arrangement Roof Plan," Revision G for Braidwood Station and Byron Station