

September 1, 2000

Spent Fuel Pool Accident - Summary of MACCS Calculations

Case	# of Cases	Areas Investigated
Base, 1, 2, 3, 4, 5, 6, 7, 41	9	decay -- 30 days, 90 days, 1 year population density -- Surry, 100 people/mile ² evacuation -- early, late evacuation -- 99.5%, 95% Ce, La release fraction -- 1×10^{-6} , 6×10^{-6} assemblies releasing FPs -- 11 batches w/ and w/o rest of last core
11, 11a, 11b, 11c, 11d, 23, 42	7	effect of ruthenium which isotope in ruthenium group is dominant
12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 24, 43, 44	14	effect of ruthenium population density -- Surry, 100 people/mile ² , 1000 people/mile ² effect of EAB size evacuation -- early or late
31, 32, 33, 34, 35, 36	6	assemblies releasing FPs -- 1 core and 3.5 cores
45, 45a, 45b, 46, 46a, 46b, 46c, 46d, 46e, 46f, 46g, 46h, 93, 94, 95, 96, 97	17	I, Cs, Ru release fraction -- 1, .75 Ce, La, Ba, Sr, Te release fraction -- .01, .001, .75 evacuation -- early, late evacuation -- 99.5%, 95%
47, 47b, 48, 49, 50	5	plume heat content -- 3.7, 83, 256 MW
91, 92	2	reactor accident with large, early release
61a-d, 62a-l	16	decay -- 1 year, 5 years gap release fractions
69b, 69c, 71b, 71c, 71d, 70b, 70c, 72b, 72c, 72d, 73a-f, 74a-f, 75a-f, 76a-f	34	decay -- 30 days, 90 days, 1 year, 2 years, 5 years, 10 years evacuation -- early, late Ru release fraction -- .75, 2×10^{-5} I, Cs release fraction -- 1, .75

total # of
cases =
110

1-26