

TABLE M.5.6.1.2–2.—Potential Source Terms for Radiological Accident Scenarios

Accident	Frequency (per year)	Source Term or Hazard (No Action Alternative)	Source Term or Hazard (Proposed Action)
Earthquake during No Action Alternative operations	2×10^{-8}	500 Ci tritium plus activated gases and particulates	500 Ci tritium plus activated gases and particulates
Earthquake during depleted uranium experiment	2×10^{-9}	0.005 g depleted uranium plus 500 Ci tritium plus fission products plus activated gases and particulates	0.1 g depleted uranium plus 500 Ci tritium plus fission products plus activated gases and particulates
Earthquake during highly enriched uranium experiment	2×10^{-9}	Not applicable	0.1 g highly enriched uranium plus 500 Ci tritium plus fission products plus activated gases and particulates
Earthquake during thorium experiment	2×10^{-9}	Not applicable	0.45 g thorium-232 plus 500 Ci tritium plus fission products plus activated gases and particulates
Earthquake during tracer experiment	2×10^{-9}	Not applicable	0.031 Ci iodine-124 0.032 Ci iodine-125 0.075 Ci iodine-126 500 Ci tritium plus activated gases and particulates
Earthquake during plutonium without yield experiment	2×10^{-9}	Not applicable	0.003 g weapons-grade plutonium plus 500 Ci tritium plus activated gases and particulates
Earthquake during plutonium with yield experiment	2×10^{-9}	Not applicable	0.001 g weapons-grade plutonium plus 500 Ci tritium plus fission products, plus activation gases and particulates

Source: LLNL 2003d.

Estimated Health Effects and Risk

Tables M.5.6.1.2–3 and M.5.6.1.2–4 show the frequencies and consequences of the postulated set of NIF accidents for a noninvolved worker, assumed to be a worker located 100 meters from the release point; the population of noninvolved workers; and the public, maximally exposed offsite individual and the general population living within 50 miles of LLNL; for both median and unfavorable meteorological conditions.