Table of Nuclear Reactor Accidents

The table below is an updated version of a similar table in IEER's report, The Nuclear Power Deception *(1996)*, which has more information on nuclear reactors and reactor accidents.

Nuclear Reactor Accidents

Reactor type	Location	Accident type	Year	Iodine-131 release, curies	Comments
Light water reactor, BWR	Fukushima, Japan	Cooling system failure, hydrogen explosion	2011	2.4 million (as of March 25, 2011)	
Sodium-cooled fast breeder	Monju, Japan	major secondary sodium leak	1995		secondary sodium was not radioactive; reactor was in test phase; extensive sodium contamination in plant
Heavy water moderated and cooled, CANDU type	Narora, Uttar Pradesh, India	turbine fire; emergency core cooling system operated to prevent meltdown system	1993	apparently no release of radioactivity	
Graphite-moderated, water cooled	Chernobyl, Ukraine	supercriticality, steam explosion and graphite fire	1986	7 million, perhaps far greater (see text)	Safety experiment went awry; total release 50 to 80 million curies or more; potential for continuing large releases exists
Light water reactor, PWR type	Three Mile Island, near Harrisburg, U.S.	cooling system failure, partial meltdown	1979	13 to 17	secondary containment prevented release of millions of curies of I-131; accident developed over several hours
Sodium-cooled fast breeder	Lagoona Beach (near Detroit)	cooling system block, partial	1966	release confined to the secondary	reactor was being tested for full

Reactor type	Location	Accident type	Year	Iodine-131 release, curies	Comments
	U.S.	meltdown		containment	power, but did not reach it; four minutes from indication of negative reactivity to meltdown
Light water reactor, BWR	near Idaho Falls, U.S.	accidental supercriticality followed by explosion and destruction of the reactor	1961	80	small U.S. Army experimental reactor using HEU fuel; 3 operators were killed
Heavy water cooled and moderated reactor	Chalk River, Canada	lack of coolant for a fuel element	1958	radioactivity apparently contained within building	Highest worker dose 19 rem
Graphite-moderated, gas-cooled	Sellafield, Britain	graphite fire	1957	20,000	
Heavy water moderated, light water cooled, experimental reactor	Chalk River, Canada	inadvertent supercriticality and partial meltdown	1952	“There was some release of radioactivity”	President Jimmy Carter helped in the clean-up

Full references for the original table are available in IEER’s report Nuclear Power Deception.

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