

International Nuclear Event Scale (INES)

	Level	Standards			Reference cases <small>(includes material that has not been officially assessed via INES)</small>
		Standard 1: People & Environment	Standard 2: Radiological Barrier & Control	Standard 3: Defense in Depth	
Accident	7 (Major Accident)	<ul style="list-style-type: none"> Major release of radioactive material with widespread health and environmental effects. 			<ul style="list-style-type: none"> Chernobyl nuclear accident (1986) in former Soviet Union Tentative Assessment Fukushima Daiichi nuclear accident resulting from the Tohoku earthquake (2011) Three Mile Island nuclear accident, U.S. (1979) JCO criticality accident (1999)
	6 (Serious Accident)	<ul style="list-style-type: none"> Significant release of radioactive material 			
	5 (Accident with Wider Consequences)	<ul style="list-style-type: none"> Limited emission of radioactive material Several deaths from radiation 	<ul style="list-style-type: none"> Severe damage to reactor core Release of large quantities of radioactive material within an installation with a high probability of significant public exposure 		
	4 (Accident with Local Consequences)	<ul style="list-style-type: none"> Minor release of radioactive material At least one death from radiation 	<ul style="list-style-type: none"> Fuel melt or damage to fuel resulting in more than 0.1% release of core inventory Release of significant quantities of radioactive material within an installation with a high probability of significant public exposure 		
Incident	3 (Serious Incident)	<ul style="list-style-type: none"> Exposure in excess of ten times the statutory annual limit for workers Non-lethal deterministic health effect from radiation 	<ul style="list-style-type: none"> Exposure rates of more than 1 Sv/h* in an operating area. Severe contamination in an area not expected by design, with a low probability of significant public exposure 	<ul style="list-style-type: none"> Near-accident at a nuclear power plant with no safety provisions remaining Lost or stolen highly radioactive sealed source 	
	2 (Incident)	<ul style="list-style-type: none"> Exposure of a member of the public in excess of 10 mSv Exposure of a worker in excess of the statutory annual limits 	<ul style="list-style-type: none"> Radiation levels in an operating area of more than 50 mSv/h Significant contamination within the facility into an area not expected by design 	<ul style="list-style-type: none"> Significant failures in safety provisions but with no actual consequences 	<ul style="list-style-type: none"> Mihama Power Plant, Unit 2 Steam generator heat-transfer tube rupture accident (1991) Radiation exposure accident of workers in the Plutonium Fuel Research Facility (PFRF) of the Oarai Research & Development Center (2017)
	1 (Anomaly)			<ul style="list-style-type: none"> Overexposure of a member of the public in excess of statutory annual limits Low activity radioactive source lost or stolen 	<ul style="list-style-type: none"> Monju sodium leak accident (1995) Primary coolant leak at the Tsuruga Power Station Unit 2 (1999) Hamaoka Nuclear Power Plant, Unit 1 residual heat removal system rupture accident (2001) Mihama Nuclear Power Plant, Unit 3 secondary system pipe rupture accident (2004)
Below scale	0 (Deviation)	No safety significance			<ul style="list-style-type: none"> 0+ Event with safety significance 0- Event with no safety significance
Not Subject to Evaluation		Event unrelated to Safety			

*Sievert (Sv): Unit representing the effect of radiation on the body. (1 mSv= 1/1,000 Sv)