

**INTERNATIONAL NUCLEAR AND RADIOLOGICAL EVENT SCALE (INES)**

Level / Descriptor	Name of the Events	Examples
<b>7 MAJOR ACCIDENT</b>	<ul style="list-style-type: none"> <li>Major release: Widespread health and environmental effects requiring implementation of planned and extended countermeasures.</li> </ul>	Chernobyl NPP, USSR (now in Ukraine), 1986 Fukushima NPP, Japan , 2011
<b>6 SERIOUS ACCIDENT</b>	<ul style="list-style-type: none"> <li>Significant release: Likely to require full implementation of planned countermeasures.</li> </ul>	Kyshtym Reprocessing Plant, Russia, 1957
<b>5 ACCIDENT WITH WIDER CONSEQUENCES</b>	<ul style="list-style-type: none"> <li>Limited release: Likely to require full implementation of planned countermeasures.</li> <li>Severe damage to reactor core / several deaths from radiation.</li> <li>Release of large quantities of radioactive material within an installation with a high probability of significant public exposure. This could arise from a major critically accident or fire.</li> </ul>	Windscale pile,UK, 1957 Three Mile Island,NPP, USA, 1979 Goiania , Brazil, 1987
<b>4 ACCIDENT WITH LOCAL CONSEQUENCES</b>	<ul style="list-style-type: none"> <li>Minor release of radioactive material unlikely to result in implementation of planned countermeasures other than local food controls.</li> <li>Fuels melt or damage to fuel resulting in more than 0.1% release of core inventory.</li> <li>At least one death from radiation/ release of significant quantities of radioactive material within an Installation with a high probability of significant public exposure.</li> </ul>	Tokaimuro, Japan, 1999 Saint-Laurent des Eaux NPP, France, 1980 Fleurus, Belgium, 2006 Mayapuri Incident, New Delhi,India ,2010
<b>3 SERIOUS INCIDENT</b>	<ul style="list-style-type: none"> <li>Near accident of an NPP with no safety provisions remaining.</li> <li>Highly radioactive sealed source lost or stolen/misdelivered without adequate radiation procedures in place to handle it.</li> <li>Exposure rates of more than 1Sv/h in an operating area.</li> <li>Severe contamination in an area not excepted by design, with a low probability of significant public exposure.</li> <li>Exposure in excess of ten times the statutory annual limit for workers/ Non-lethal deterministic health effect (e.g.burns) from radiation.</li> </ul>	Vandellous NPP, Spain, 1989 Ikiteli,Turkey, 1999.  Sellafield, UK, 2005 Yanango, Peru, 1999
<b>2 INCIDENT</b>	<ul style="list-style-type: none"> <li>Significant failures in safety provisions but with no actual consequences.</li> <li>Exposure of member of public in excess of 10mSv/ exposure of a worker in excess of the statutory annual limits/ Radiation level in an opening area of more than 50 mSv/h</li> <li>Significant contamination within the facility into an area not expected by design.</li> <li>Found highly radioactive sealed orphan source, device or transport package with safety provision intact/ inadequate packaging of highly radioactive material sealed source.</li> </ul>	Forsmark , Sweden , 2006  Atucha, Argentina, 2005
<b>1 ANOMALY</b>	<ul style="list-style-type: none"> <li>Minor problems in safety components with significant defence in depth remaining low activity lost or stolen radioactive source. Device or transport package</li> <li>Overexposure of member of public in excess of statutory limits.</li> </ul>	Breach of operating limits at a nuclear facility / theft radioactive source.
<b>0 DEVIATIONS BELOW SCALE</b>	No safety significance.	