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Events without safety significance are rated as “Below Scale/Level 0”.
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Events are rated on INES using a methodology that is described in detail in the IAEA INES User’s Manual (http://www-pub.iaea.org/MTCD/Publications/PDF/INES2013web.pdf).

Each event is considered in terms of its impact on three different areas.

- The impact on people and the environment considers the doses to people or the amount of radioactive material released to the environment.
- The impact on the systems designed to prevent the spread of contamination (radiological barriers and controls) considers the severity of the event at the site of a facility, as well as potential harm to the public.
- The impact on safety systems (defence in depth) considers events where the measures put in place to prevent accidents did not operate as intended, providing an indication of how close the event was to causing actual consequences.

The INES rating is the one that corresponds to the highest of the three.

What do the different INES ratings mean?

- Below Scale/Level 0 is for events that have no radiation safety significance.
- Level 1 means that there is only degradation of the safety systems designed to prevent the occurrence of events.
- Levels 2 and 3 mean that there are more serious degradations of the safety systems or some, though not severe, consequences for people and the environment.
- Levels 4 to 7 mean there is at least one death from radiation and/or a release of radioactive material that requires, or could require, the implementation of countermeasures.

Examples of INES ratings

Below Scale/Level 0:
- Discovery of damaged fuel rods during core unloading and fuel inspections, NPP Krsko, Slovenia, 2013
- Discovery of consumer goods contaminated with $^{60}$Co, Colombo, Sri Lanka, 2012

Level 1 (anomaly):
- Fast stop of the main circulation pumps and simultaneous loss of their fly wheel systems during reactor scram, NPP Olkiluoto-1 Finland, 2008
- Exposure of two workers in the nuclear power plant beyond the dose constraints, NPP Rajasthan-5, India, 2012

Level 2 (incident):
- Reactor trip due to high pressure in the reactor pressure vessel, NPP Laguna Verde-2, Mexico, 2011
- Overexposure of a practitioner in interventional radiology exceeding the annual limit, Paris, France, 2013

Level 3 (serious incident):
- Release of $^{131}$I into the environment from the radioelements production facility, Fleurus, Belgium, 2008
- Severe overexposure of a radiographer, Lima, Peru, 2012

Level 4 (accident with local consequences):
- Radioactive material in scrap metal facility resulted in acute exposure of scrap dealer, New Delhi, India, 2010
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- Severe damage to the reactor core, NPP Three Mile Island, USA, 1979
- Four people died after being overexposed from an abandoned and ruptured high activity source, Goiania, Brazil, 1987

Level 6 (serious accident):
- Significant release of radioactive material to the environment after the explosion of a high activity waste tank Kyshtym, Russian Federation, 1957

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