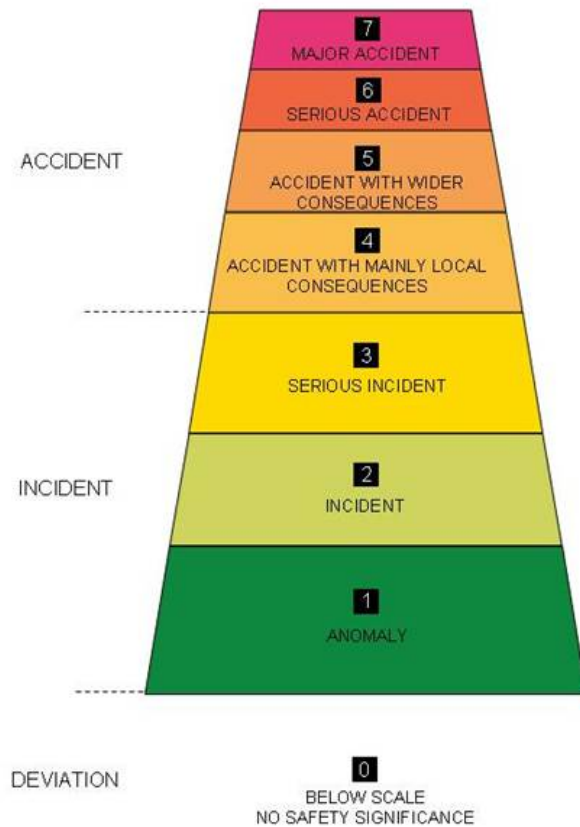


SCIENTISTS EXPAND NUCLEAR RATING SCALE

July 6, 2007--Just as hurricanes are rated for severity, and earthquakes have their Richter scale, so the International Atomic Energy Agency (IAEA) communicates the safety significance of nuclear events with a consistent numerical protocol. Not widely known outside the nuclear community, the International Nuclear Event Scale (INES) is the mechanism used to classify and report events to the world at large. At this week's annual meeting of the Health Physics Society in Portland, Oregon, a scientist describes the scale and how it is being expanded to include new types of events.



The INES Scale (Courtesy IAEA)

Cynthia Jones, who is the US representative to the INES Advisory Committee and is also a senior technical advisor on nuclear security at the Nuclear Regulatory Commission (NRC), has reviewed the use of the scale, and will illustrate how it is used, such as in reporting nuclear events in the US. She will also report that the scale is now being expanded to include events related to radioactive-material transportation and radiation exposure events. More than 60 countries have agreed to report nuclear events to the IAEA, most within 48 hours.

Here is what the designations mean: A scale 1 event is referred to as an anomaly; a rating of 2 is an incident (where, for example, the regulatory limit for a radiation worker has been exceeded); 3 is a serious incident; 4 corresponds to an accident with mainly local consequences; 5 an accident with wider consequences; 6 a serious accident; and 7, the highest rating, is for major accidents. On this scale, the Chernobyl accident (1986) is a 7, while the Three Mile Island accident (1979) receives a 5 rating.

Jones (cgj@nrc.gov) says that US is a frontrunner in rapid reporting of events. (For additional information, see IAEA website: <http://www-news.iaea.org/news/>; INES website: <http://www-news.iaea.org/news/inesmanual/default.asp>)

INES Example of Previous Events

Event	Rating
Chernobyl (1986)	7
Kyshtym (1957)	6
Windscale (1957)	5
Goiana (1987)	5
Three mile island (1979)	5
Tokaimura (1999)	4
Vandellos (1989)	3
Industrial radiographer worker overexposure	2



Courtesy Cyndi Jones.

ABOUT THE HEALTH PHYSICS SOCIETY

The Health Physics Society consists of over 5,500 radiation safety professionals whose activities include ensuring safe and beneficial uses of radiation and radioactive materials, assisting in the development of standards and regulations, and communicating radiation safety information.

The Society is a nonprofit organization formed in 1956. Its primary mission is excellence in the science and practice of radiation safety. The Society has members in 44 countries,

and has established 45 chapters and 14 student branches. Visit www.hps.org for more information.

HPS Meeting Presentation: Monday, July 9, 2007, 4:00 PM PDT, Paper MPM-C.3, "Updating the IAEA International Nuclear Event Scale Reporting System."

For more information, please contact

Cyndi Jones
Nuclear Regulatory Commission
cgj@nrc.gov

Kelly Classic, HPS Media Liaison, media@hps.org
507-254-8444; (cellphone July 6-July 15; also, text messages to this number will receive written replies)
507-284-4407 (office after July 15)

Ben Stein
American Institute of Physics, bstein@aip.org,
301-209-3091

###