

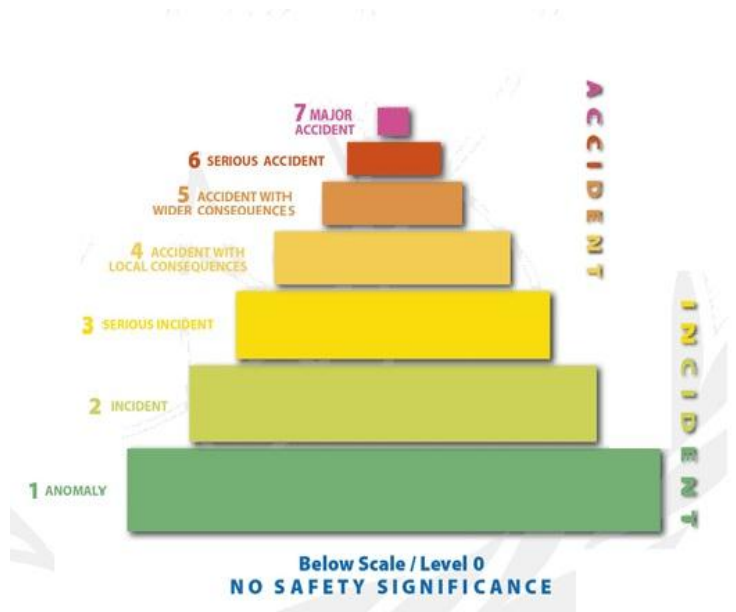
Significant Events

It is obligatory for operating nuclear power plants to report promptly to regulatory body, certain events that occur in the plant which have or may have impact on operational safety. Under the reporting system established by AERB, the events reportable to the regulatory body are divided into two categories, termed as,

- (a) Events and
- (b) Significant Events.

This categorization of events is done based on their safety significance and importance to operational safety experience feedback. Based on the established reporting criteria, event reports (ER) and significant event reports (SER) are submitted to AERB.

The SERs received from the operating NPPs are rated on the International Nuclear and Radiological Event Scale (INES) of International Atomic Energy Agency (IAEA). As per the INES, nuclear and radiological events depending on their safety significance can be classified at seven levels (1 to 7) as shown below.



Events rated at level 4 and above are termed as 'Accidents'. The accidents at Chernobyl NPP in former USSR (now in Ukraine) in April 1986 and Fukushima NPPs in Japan in March 2011 were rated at level 7 on INES. Events rated at levels 1, 2 and 3 are called 'Incidents'. Events with no safety significance are rated at level 0 or below scale.

During the period from January 2017 to December 2017, 27 significant events were reported from operating Indian NPPs. These events considering their safety significance were evaluated for INES rating as per the INES User's Manual 2008 of IAEA and OECD/NEA. The station wise break-up of these events along with their INES ratings are given in table below:

| Plants | INES Rating of Events | | | Total significant events reported during January to December 2017 |
|--------------|-----------------------|----------|----------|---|
| | 0 | 1 | >1 | |
| TAPS 1 & 2 | 0 | 0 | 0 | 1* |
| TAPS 3 & 4 | 2 | 1 | 0 | 3 |
| RAPS-1 & 2 | 2 | 0 | 0 | 2 |
| RAPS-3 & 4 | 1 | 0 | 0 | 1 |
| RAPS-5 & 6 | 0 | 0 | 0 | 0 |
| MAPS-1 & 2 | 4 | 0 | 0 | 4 |
| NAPS-1 & 2 | 3 | 0 | 0 | 3 |
| KAPS-1 & 2 | 1 | 0 | 0 | 1 |
| KGS- 1 & 2 | 0 | 0 | 0 | 0 |
| KGS- 3 & 4 | 1 | 0 | 0 | 1 |
| KK-1 | 11 | 0 | 0 | 11 |
| Total | 25 | 1 | 0 | 27 |

*Industrial safety related event, so INES is not applicable.

During the period from January 2018 to November 2018, twenty nine significant events were reported from operating NPPs (see table below). Out of these, twenty seven events were evaluated for rating on INES. Two events (i.e. fatal accident at NAPS-1&2 and KK-1&2) were related to industrial safety and hence cannot be rated on INES. The station wise break-up of events along with their INES ratings are given in table below:

| Plants | INES Rating of Events | | | Total significant events reported till November 2018 |
|--------------|-----------------------|----------|----------|--|
| | 0 | 1 | >1 | |
| TAPS 1 & 2 | 3 | 0 | 0 | 3 |
| TAPS 3 & 4 | 5 | 0 | 0 | 5 |
| RAPS-1 & 2 | 2 | 0 | 0 | 2 |
| RAPS-3 & 4 | 1 | 0 | 0 | 1 |
| RAPS-5 & 6 | 0 | 0 | 0 | 0 |
| MAPS-1 & 2 | 3* | 0 | 0 | 3 |
| NAPS-1 & 2 | 6 | 0 | 0 | 7 [§] |
| KAPS-1 & 2 | 0 | 0 | 0 | 0 |
| KGS- 1 & 2 | 1 | 0 | 0 | 1 |
| KGS- 3 & 4 | 2 | 0 | 0 | 2 |
| KK-1&2 | 4 | 0 | 0 | 5 [#] |
| Total | 27 | 0 | 0 | 29 |

Note:

* One event at MAPS-1 is provisionally rated at level '0' because its investigations are still in progress.

[§] INES is not applicable for two of the industrial safety event (Fatal accident) at NAPS-1&2 and KK-1&2.