
Incident and Emergency Preparedness and Response

Objective

To maintain and further enhance efficient Agency, national and international [emergency preparedness and response] capabilities and arrangements for effective response to nuclear or radiological incidents and emergencies independent of the triggering event(s). To improve exchange of information on nuclear or radiological incidents and emergencies among Member States, international stakeholders, and the public and media in the preparedness stage and during response to nuclear or radiological incidents and emergencies, independent of the triggering events.

Strengthening Emergency Preparedness Arrangements

In March 2021, the Agency finalized the curriculum for a pilot international master's degree programme in emergency preparedness and response (EPR) based on the Agency's safety standards, to be implemented in Member States to ensure an adequate level of national preparedness and response to nuclear or radiological emergencies. The first university to implement the curriculum was Peter the Great St. Petersburg Polytechnic University, in the Russian Federation, in September 2021.

The Agency organized a Technical Meeting on Next Generation Reactors and Emergency Preparedness and Response in October 2021, where participants discussed, inter alia, how safety improvements may impact emergency arrangements for next generation reactors; challenges in regulating on-site emergency arrangements for these reactors; applicability of specific concepts in EPR described in the Agency's safety standards; and various aspects to be considered when establishing needed emergency arrangements.

Response Arrangements with Member States

The Agency conducted a Level 3 Convention Exercise (ConvEx-3), hosted by the United Arab Emirates (UAE) in October 2021, to test the international arrangements for response to a major nuclear emergency. The two-day emergency exercise tested the response to a simulated accident at the Barakah nuclear power plant (NPP) in the UAE. The exercise also included several firsts: an Agency assistance mission, composed of experts from France, the Republic of Korea, the United States of America and the Agency, was deployed, integrated into the UAE national response and provided radiation monitoring data from the area around the Barakah NPP; 112 laboratories worldwide provided rapid gamma spectrum analysis results, thus testing not only the capability to measure but also the capability to operatively transmit results; and the Agency social media simulator was used and allowed participants to test responses to simulated crises on social media.



Shift turn-over between operations officers during the 36-hour ConvEx-3 nuclear emergency exercise.



The Agency conducted a ConvEx-2b exercise in March 2021 with the largest number of participants to date, which involved 29 Member States and 5 international organizations acting as 'Assisting Players' and 18 Member States acting as 'Requesting States'.

Response to Events

The Agency presented a report on communicating on events including those with little or no impact on nuclear or radiation safety that may raise public or media interest to the Board of Governors in August 2021. In the report, Member States were strongly encouraged to prioritize a prompt response to queries about relevant events of public or media concern and to consider addressing media queries with promptness and transparency.

In response to requests for assistance from Thailand in 2021, the Agency coordinated its first ever virtual international assistance mission, involving Response and Assistance Network declared capabilities. Response to the event was conducted in accordance with the Agency's emergency response roles.

In-house Preparedness and Response

The Agency organized a comprehensive programme of training classes and exercises to enhance the skills and knowledge of Agency staff members serving as qualified responders in the Incident and Emergency System. The programme offered 142 hours of training during the year, including 71 classes for 191 Agency staff responders. In 2021, 450 external visitors learned about the Incident and Emergency Centre during (partly virtual) presentations and tours of its operational area.