

## **Generation IV International Forum Response to the Fukushima Daiichi Nuclear Power Plant Accident**

The Generation IV International Forum (the Forum) extends its heartfelt sympathy to those who suffered from the massive earthquake, the tsunami, and subsequent Fukushima Daiichi nuclear power plant accident that occurred in Japan on March 11, 2011. For current and future generation nuclear power plants, the Fukushima accident reconfirmed the importance of assuring that nuclear safety considers the full spectrum of natural events.

The Forum is an international collective of countries working cooperatively on the development of the next generation of nuclear power plants (Generation IV). In response to the Fukushima accident, the Forum's member countries are conducting safety reviews of their operating nuclear power plants, developing lessons learned and implementing appropriate safety improvement measures. Taken together, these measures should confirm the safety of existing reactors. The Forum notes that the latest generation of nuclear power plants (referred to as Generation III) that are currently being deployed have already incorporated design improvements that substantially enhance safety. By extension, the Forum believes it is essential for the next generation of nuclear power plants, anticipated for commercial deployment post-2030, to be designed with the best available safety knowledge that reflects worldwide operational experience and society's expectations.

Generation IV nuclear power plant designs will be based on innovative technologies that offer significantly enhanced performance featuring a higher degree of safety and security, reliability, economic competitiveness, waste minimization, resource utilization and resistance to proliferation. Six of the most-promising Generation IV nuclear power plant designs are under joint development by the Forum based on a technology roadmap issued in 2002. These include the Sodium Fast Reactor, the Very High Temperature Reactor, the Gas Fast Reactor, the Super-Critical-Water Cooled Reactor, the Lead Fast Reactor, and the Molten Salt Reactor.

The Forum is developing safety design criteria for Generation IV nuclear power plants that reflect lessons learned from Fukushima, with the completion of the Sodium Fast Reactor criteria anticipated in 2012.

During its meeting held in Luzern, Switzerland, October 6-7, 2011, the Forum reaffirmed its commitment to conducting collaborative research and development on Generation IV nuclear power plants to prevent and mitigate accidents and attain the highest degree of safety. The Forum's research and development results will be incorporated into near-term prototype and demonstration projects that will demonstrate the safety and other advanced features of Generation IV nuclear power plants.