

IAEA Press Release

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One Year After Fukushima, Nuclear Safety Is Stronger

9 March 2012 | Nuclear power is safer than it was a year ago as the nuclear industry, regulators and governments act on the lessons of Fukushima, but that safety must never be taken for granted, said Yukiya Amano, Director General of the International Atomic Energy Agency (IAEA).

Speaking ahead of the first anniversary of the Fukushima Daiichi nuclear accident on 11 March, Amano said a culture of constant vigilance and improvement was vital to ensure that the benefits of nuclear power could be harnessed as safely as humanly possible.

"Nuclear safety is stronger than it was a year ago," he said. "Fukushima Daiichi was a very serious accident, but we know what went wrong and we have a clear course of action to tackle those causes - not only in Japan, but anywhere in the world.

"Now we have to keep up the momentum. Complacency can kill."

On 11 March 2011 a huge earthquake and tsunami left more than 20 000 people dead or missing in eastern Japan. Amidst widespread destruction, the tsunami slammed into the Fukushima Daiichi Nuclear Power Station, disabling cooling systems and leading to fuel meltdowns in three of the six Units.

The accident was a jolt to the nuclear industry, regulators and governments. It was triggered by a massive force of nature, but it was existing weaknesses of design regarding defence against natural hazards, regulatory oversight, accident management and emergency response that allowed it to unfold as it did. For example:

- The nuclear regulator was not sufficiently independent, allowing weak oversight of the operator, TEPCO, and regulatory requirements fell short of international best practice;
- Not enough attention was paid to guarding against possible extreme events at the Fukushima Daiichi site, leaving critical safety functions such as cooling systems vulnerable to the tsunami;
- Training to respond to serious accidents was inadequate, as were mitigation measures to prevent hydrogen explosions and protect the venting system; and
- Accident command lines were unclear and response plans not sufficiently integrated.

"Human failings such as these are not unique to Japan," Amano said. "We humans learn from our mistakes. Countries around the world are searching out the weak links in their own systems, and taking action to strengthen them."

Earlier assumptions about plant safety in the face of extreme conditions have been scrutinised and revised, and defences are being strengthened. The IAEA Nuclear Safety Action Plan, endorsed unanimously last September by the Agency's Member States, sets out a blueprint for national and international action in 12 major areas. Among these:

- The IAEA has developed a new methodology for assessing the safety vulnerabilities of nuclear power plants, which has already been used on an IAEA expert mission to review the approach taken by Japan in its own plant safety assessment;
- The IAEA has sent a number of other expert technical missions to support Japan, and has advised the country as it establishes a new, more independent regulatory system;
- The IAEA's Safety Standards, which provide the basis for a high level of safety, have been systematically reviewed and proposals have been made to reinforce them, with particular emphasis on a strong regulatory framework and safe siting, design and operation of plants;
- The IAEA has stepped up its peer review services, incorporating lessons of Fukushima to help Member States assess and reinforce nuclear safety, and has taken steps to improve coordination with operators; and
- Member States agreed to strengthen and expand the IAEA's communication role in response to nuclear emergencies, including provision of analysis and possible prognoses.

Further Resources

For more information on the Fukushima accident and follow-up actions, including the *IAEA Action Plan on Nuclear Safety*, visit <http://www.iaea.org/newscenter/focus/fukushima/>