

NRC STAFF REVIEW OF THE IAEA DIRECTOR GENERAL'S REPORT "THE FUKUSHIMA DAIICHI ACCIDENT"

At the International Atomic Energy Agency (IAEA) General Conference in September 2012, the IAEA Director General, Yukiya Amano, announced that the IAEA would prepare a comprehensive report on the Fukushima Daiichi accident. The Director General's report, "[The Fukushima Daiichi Accident](#)," was published in August 2015 and is the product of a multi-year international collaborative effort involving over 180 subject matter experts from 42 Member States and several international bodies.

This report consists of an Executive Summary and a Summary Report, which were derived from five detailed technical volumes totaling over 1,000 pages. The Summary Report provides a description of the accident and its causes, evolution, and consequences, and highlights the main observations and lessons. The Summary Report contains six sections:

1. Introduction.
2. The accident and its causes, including a description of the sequence of events and an assessment of how extreme natural events led to the severe nuclear accident.
3. Emergency preparedness and response, including the arrangements for the protection of emergency workers and the public and the implementation of these arrangements during and immediately after the accident.
4. The radiological consequences of the accident, including radiation exposure of workers and the public, and health and environmental effects.
5. Post-accident recovery activities, including decommissioning of the plant, remediation strategies for the off-site areas affected, waste management, and strategies for revitalization.
6. An overview of the activities of the IAEA and the Contracting Parties to the Convention on Nuclear Safety in response to the accident.

The main observations and lessons are detailed in Sections 2–5 of the report. The NRC staff has reviewed the observations and lessons and has concluded that they do not introduce issues that have not been considered by the U.S. Nuclear Regulatory Commission (NRC), the U.S. Government, or the U.S. nuclear industry, either as part of pre-existing programs or as post-Fukushima enhancements.

The NRC staff's high-level, theme-focused review, which includes embedded hyperlinks to specific references, is provided below. A more detailed comparison of U.S. actions and IAEA's observations and lessons can be found [here](#).

Summary of NRC Staff Assessment of IAEA Comprehensive Report

IAEA Theme	IAEA Theme Addressed Though:
Ensuring Protection from External Events	<ul style="list-style-type: none"> • Pre-Fukushima requirements for protection from external events. • New post-Fukushima requirements for protection from external events. • New requirement for licensees to reevaluate seismic and flooding hazards. • Evaluation of other external hazards and ongoing hazard assessments.
Enhancing Mitigation of Beyond-Design-Basis Events	<ul style="list-style-type: none"> • Pre-Fukushima requirements for external event mitigation. • New order for mitigating beyond-design-basis external events. • New order for enhanced venting capability for Fukushima-type reactors. • New rule will improve strategies for responding to large-scale events.
Strengthening Emergency Preparedness for Multi-Unit Events	<ul style="list-style-type: none"> • Pre-Fukushima requirements for emergency preparedness. • New order to prepare response for multi-unit events. • New rule to strengthen emergency preparedness capabilities • Programs for international cooperation during an accident.
Ensuring a Strong Regulatory Structure	<ul style="list-style-type: none"> • NRC is an independent regulatory agency. • NRC maintains a strong commitment to protect people and environment. • NRC is an integral part of the U.S. response plan for nuclear accident. • Strong internal and external safety culture programs.
Mitigating Radiological Consequences from an Accident	<ul style="list-style-type: none"> • Pre-Fukushima requirements for accident mitigation and response. • Pre-Fukushima requirements for on- and off-site radiological protection. • NRC regulations establish requirements for monitoring radiological releases. • Formal U.S. response plan to responding to radiological incidents.