

Thank you for joining us for this briefing and discussion on Illinois' nuclear power plants, their safety features and our preparedness in the event of natural disasters.

Joining us today to contribute to this conversation are stakeholders and experts in nuclear energy from the regulatory, industrial, government, and scientific realms.

Thank you all for being here.

Introduction

Illinois ranks first among states in nuclear power generation and accounts for one-tenth of the nuclear power generated in this country.

There are six nuclear power plants in Illinois -- more than in any other state in the country -- which provide nearly half of electricity in Illinois.

Nuclear energy powers the computers, televisions, and businesses we use every day—we cannot maintain our standard of living without it.

We can't afford to ignore issues surrounding the safety and reliability of nuclear reactors and our readiness for accidents at these facilities.

And the catastrophic damage done to Japan's nuclear power plant by the earthquake and subsequent tsunami of March 11th has renewed our interest in this critical topic.

Our objectives for today's discussion are simple: to review and take stock of safety measures and practices we have in place at our nuclear facilities across the state; and to explore whether further safeguards are needed.

The Events in Japan

Two weeks ago, an earthquake measuring 9.0 on the Richter scale hit the coast of Japan. This was followed by a tsunami, leading to 23-foot-high waves attacking the same region.

The two events devastated the Fukushima Dai-ichi nuclear plant:

- Following the earthquake, offsite power—needed to pump cooling water into the reactor core and spent fuel pools—was shut off due to issues with the electrical grid.
- Back-up diesel generators -- meant to provide electricity when off site power is lost -- were located behind a retention wall and were flooded by the tsunami.
- Back-up battery power was only able to provide electricity to the plant for a limited time, and then there was no way to supply adequate cooling water.

Once sufficient cooling water could not be maintained, both the reactor and spent fuel pools overheated, leading to the explosions and fires at the plant.

Emergency mitigation strategies were in place and did help. Hundreds of thousands of people were evacuated from around the plant, and potassium iodide pills were distributed to help protect people from the harmful releases of radioactive materials.

But the situation has been far from stable. The question before us now is: what can we learn from the disasters in Japan and how might those lessons apply to the safety practices at our own plants and our own emergency planning?

Could nuclear plants in Illinois safely deal with a station blackout of power and complete a shutdown of the facility?

Domestic Events

This is not the first time the industry and government agencies have come together to re-evaluate the risks and safety procedures surrounding nuclear energy generation.

The partial core meltdown of a reactor at the Three Mile Island nuclear power plant in 1979 and, more recently, the attacks of September 11th led to additional scrutiny of nuclear power and safety precautions around it.

Today's Hearing

I hope we will learn more today about how those tragedies have informed current safety standards and practices and, importantly, what Japan's ongoing challenges can tell us about how well prepared we are in Illinois for disaster.

