

### U.S. NRC Approach and Actions in Response to the Fukushima Accident

June 21, 2011

# **U.S. NRC Actions to Date**

- Communicating with licensees
  - Providing information so that licensees can take proactive actions
- Enhanced inspections
  - Issued Temporary instructions (TI) to focus on Fukushima-related issues
- Issued Bulletin

- Mitigating strategies



**Protecting People and the Environment** 

## **Task Force**

- Systematic and methodical review
  - Near-term, 90-day review
  - Longer-term review
- Areas of Focus Defense-in-depth approach to:
  - Prevention from natural phenomena
  - Mitigation for long-term station blackout
  - Emergency preparedness (EP)

U.S.NRC

United States Nuclear Regulatory Commission

Protecting People and the Environment  $\frac{3}{3}$ 

## **Task Force Themes**

- Protection of Equipment from external hazards is a key foundation of safety
- Mitigation equipment and strategies to prevent core and spent fuel damage provide additional defense-in-depth
- EP provides further defense-in-depth by minimizing public dose should a release occur



United States Nuclear Regulatory Commission

Protecting People and the Environment

## Prevention

#### • Design basis events

- Seismic, flooding, and other external events
- Broader focus than seismic/tsunami hazards

### Beyond design basis events

- Survivability of alternating current (AC) power
- Emergency AC power and distribution
- Alternative AC sources in the event normal sources are lost



United States Nuclear Regulatory Commission

Protecting People and the Environment 5

# Mitigation

#### Mitigation Goals

- Preventing core damage and containment failure
- Preventing spent fuel damage and mitigating releases
- Cross-cutting considerations
  - Emergency operating procedures and guidelines



Protecting People and the Environment  $_{6}$ 

## **Emergency Preparedness**

- Considerations from Fukushima
  - Infrastructure damage
  - Multi-unit events
  - Long-term station blackout
- National approach
  - Shared responsibility with other federal agencies, state and local authorities, and private sector licensees



United States Nuclear Regulatory Commission

Protecting People and the Environment  $\frac{7}{7}$ 

# **International Cooperation**

- Fukushima-related efforts
  - Coordinating events and efforts to maximize effectiveness
  - Open exchange of information
- Broader Efforts
  - Multilateral activities
  - Bilateral activities



# **Next Steps**

#### Follow-up activities

- Evaluate inspection findings
- Bulletin on mitigating strategies

#### Near-term review

- 90-day final briefing
- Final Task Force report
- Long-term review



Protecting People and the Environment  $\Im$