



The Nuclear Reactors, Materials, and Waste Sector-Specific Plan (SSP) guides and integrates not only the sector's efforts to enhance the security and resilience of the sector, but also the sector's contributions to national critical infrastructure security and resilience as set forth in Presidential Policy Directive 21 (PPD-21).

## Nuclear Reactors, Materials, and Waste Sector Overview

The Nuclear Reactors, Materials, and Waste Sector (or Nuclear Sector), one of 16 critical infrastructure sectors identified in the *National Infrastructure Protection Plan 2013: Partnering for Critical Infrastructure Security and Resilience* (NIPP 2013), includes the Nation's 99 commercial nuclear power plants; 31 research, training, and test reactors (RTTRs); 8 active fuel cycle facilities; waste management; and 18 power reactors and 6 fuel cycle facilities that are decommissioning or inactive. It also includes the transport, storage, use, and safe disposal of more than 3 million packages of radioactive or nuclear materials and waste annually.

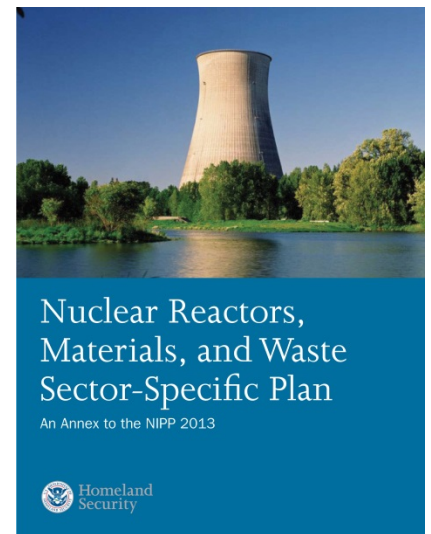
The private sector primarily owns and operates all civilian nuclear assets under a large framework of regulations that require robust and redundant security measures and specialized emergency response. The Nuclear SSP reflects the voluntary activities that the sector will participate in or support to reduce risk above and beyond what is required by regulation.

## Current Risks

The sector faces risks from a variety of natural incidents, accidents, attacks, and malevolent or inadvertent misuse. Risks associated with climate change and increasingly severe natural disasters continue to grow for nuclear power plants. After a March 2011 earthquake and tsunami caused an unforeseen triple meltdown at Japan's Fukushima-Daiichi nuclear power plant that released radioactive material, U.S. nuclear facilities are re-evaluating their ability to withstand beyond-design-basis events. In the digital realm, increasingly sophisticated cyber threats require continually advancing cybersecurity requirements for critical plant control systems. In addition, a limited supply chain for isotopes used for medical procedures present potential shortages for the medical community.

## Sector-Specific Plan Goals and Priorities

Led by the DHS Office of Infrastructure Protection, the Nuclear Sector Coordinating Council (SCC), and Nuclear Government Coordinating Council (GCC), the SSP represents a collaborative effort among the private sector; State, local, tribal, and territorial governments; nongovernmental organizations; and Federal departments and agencies to work toward achieving shared goals and priorities and to address the unique operating conditions and risk landscape of the Nuclear Sector.



**Sector-Specific Plan for Nuclear Reactors, Materials, and Waste**  
(DHS image)

The sector's goals for the next four years reflect the strategic direction of the sector and support the Joint National Priorities developed in 2014 by the national council structures described in NIPP 2013:

1. Establish robust collaboration and communication and promote continuous learning among Nuclear Sector partners and cross-sector stakeholders.
2. Continuously identify and assess sector-specific threats, vulnerabilities, and consequences to enable a risk-informed approach to security and resilience enhancements.
3. Coordinate with sector partners to develop programs and measures that cost-effectively reduce physical and cyber risks from all-hazard incidents impacting Nuclear Sector assets.
4. Support advance planning and risk mitigation that enables coordinated response and rapid recovery to ensure safe and resilient operation of critical Nuclear Sector services.
5. Promote continuous learning and adaptation among global Nuclear Sector and cross-sector partners during exercises, incidents, and planning.

## **What's New in the 2015 Sector-Specific Plan?**

Updates in this SSP include addressing the nexus between cyber and physical security, interdependence between various critical infrastructure sectors, risks associated with climate change, aging and outdated infrastructure, supply chain resilience, and other issues of concern.

## **How to Use the Sector-Specific Plan**

Commercial and government partners in the Nuclear Sector can use this SSP to develop individual paths forward as they address security challenges and build resilience within their unique risk management perspectives, priorities, and resources. This SSP also includes metrics that Nuclear Sector partners can use to measure their progress as they enhance the security and resilience of their facilities and management of waste.

## **Contact**

To read the Nuclear Reactors, Materials, and Waste SSP, visit <http://www.dhs.gov/publication/nipp-ssp-nuclear-2015>.

For more information, visit the Nuclear Reactors, Materials, and Waste Sector Webpage at <http://www.dhs.gov/nuclear-sector> or email the sector at [nuclearssa@hq.dhs.gov](mailto:nuclearssa@hq.dhs.gov).