

## Defense Nuclear Nonproliferation

The office of Defense Nuclear Nonproliferation (DNN) is responsible for U.S. nuclear security and nonproliferation operations. As part of the National Nuclear Security Administration within the Department of Energy, DNN works closely with international partners, U.S. federal agencies, national laboratories, and the private sector to secure and/or dispose nuclear and radiological material. DNN also houses programs for detection and compliance relating to weapons of mass destruction.

Below are the core programs within DNN:

### Global Material Security    **FY16 Enacted:** \$426.8 million    **FY17 Requested:** \$337.1 million

<i>International Nuclear Security</i>	<ul style="list-style-type: none"> <li>Collaborate with international partners to improve physical security measures, training, and infrastructure</li> </ul>
<i>Radiological Security</i>	<ul style="list-style-type: none"> <li>Securing, removing, and disposing of radiological sources</li> <li>Conversion of technologies using radiological sources to lower-risk methods</li> <li>Training for theft response</li> </ul>
<i>Nuclear Smuggling Detection and Deterrence</i>	<ul style="list-style-type: none"> <li>Primary purpose is to halt and/or prosecute cases of nuclear materials theft or illicit transport</li> </ul>

### Material Minimization and Management    **FY16 Enacted:** \$316.6 million    **FY17 Requested:** \$341.1 million

<i>Conversion</i>	<ul style="list-style-type: none"> <li>Convert or shutdown civilian reactors that rely on proliferation-risk High Enriched Uranium (HEU)</li> <li>Develop new fuels and technologies for conversion purposes</li> </ul>
<i>Nuclear Material Removal</i>	<ul style="list-style-type: none"> <li>Removal of excess plutonium and HEU from partner countries</li> <li>Repatriation of U.S.-origin nuclear material</li> </ul>
<i>Material Disposition</i>	<ul style="list-style-type: none"> <li>Disposal of U.S. origin plutonium and HEU Provide Low Enriched Uranium (LEU) for peaceful use, domestically and abroad</li> </ul>

### **Nonproliferation Research and Development**    **FY16 Enacted:** \$419.3 million    **FY17 Requested:** \$393.9 million

<i>Proliferation Detection</i>	<ul style="list-style-type: none"> <li>Develop technologies and methods to detect illicit nuclear weapons programs internationally</li> </ul>
<i>Nuclear Detonation Detection</i>	<ul style="list-style-type: none"> <li>Monitor worldwide for the detonation of nuclear weapons</li> <li>Analytical nuclear forensics of detected detonations</li> </ul>

### **Nonproliferation and Arms Control**    **FY16 Enacted:** \$130.2 million    **FY17 Requested:** \$124.7 million

<i>Nonproliferation and Arms Control Policy</i>	<ul style="list-style-type: none"> <li>Develop programs and strategies to counter threats and emerging arms control and nonproliferation challenges</li> </ul>
<i>International Nuclear Safeguards</i>	<ul style="list-style-type: none"> <li>Strengthen capacity of the IAEA and Member states in order to meet safeguard obligations</li> </ul>
<i>Nuclear Controls</i>	<ul style="list-style-type: none"> <li>Capacity building and training to improve upon and enforce export controls</li> </ul>
<i>Nuclear Verification</i>	<ul style="list-style-type: none"> <li>Monitor compliance with existing nonproliferation and reduction treaties</li> <li>Advance verification technologies</li> </ul>

Budgeting for Defense Nuclear Nonproliferation also includes the nonproliferation construction budget. Currently, the construction budget is solely dedicated to the troubled [Mixed Oxide \(MOX\) Fabrication Facility](#) in Savannah River, South Carolina. \$340 million was enacted for nonproliferation construction in 2016, with a request for \$270 million in FY17 to be used to discontinue the project. As of now, the future of the MOX facility is uncertain.

Defense Nuclear Nonproliferation also includes the Nuclear Counterterrorism and Incident Response Program, which implements plans to deter, prevent, and if necessary, respond to an act of nuclear or radiological terrorism. \$234.4 million was enacted for this program in 2016, with \$271.9 requested for FY2017.

Funding for core nonproliferation programs within DNN has been reduced significantly over the last five years. This reduction is caused by many factors, including reduced cooperation with Russia, the inability of foreign partners to absorb funding, and a lack of political constituency for nuclear security issues and priorities.