

## **PROPOSED FUNCTIONAL STATEMENTS**

### **OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS (NMSS)**

The Office of Nuclear Material Safety and Safeguards (NMSS) is responsible for regulating activities which provide for the safe and secure production of nuclear fuel used in commercial nuclear reactors; the safe storage, transportation and disposal of high-level radioactive waste and spent nuclear fuel; and the transportation of radioactive materials regulated under the Atomic Energy Act. Ensures safety and security by implementing a regulatory program involving activities including licensing, inspection, assessment of licensee performance, events analysis, enforcement, and identification and resolution of generic issues. Develops and implements NRC policy for the regulation of these activities involving uranium recovery, conversion, and enrichment activities; fuel fabrication and development; transportation of nuclear materials, including certification of transport containers, and reactor spent fuel storage; and safe management and disposal of spent fuel and high-level radioactive waste. Has lead responsibility within NRC for domestic and international safeguards policy and regulation for fuel cycle facilities, including material control and accountability (MC&A). Consistent with direction in the Nuclear Waste Policy Act and the Energy Policy Act, conducts pre-licensing activities to ensure appropriate standards and regulatory guidance are in place and interacts with the applicant, the Department of Energy (DOE), such that the licensing review for a potential Yucca Mountain HLW repository can be conducted in 3-4 years as directed by Congress. The Office also is responsible for regulation and licensing of recycling technologies intended to reduce the amount of waste to be disposed through geologic disposal and to reduce proliferation concerns since the technologies do not produce separated plutonium. In order to develop an appropriate regulatory framework, NMSS interacts with DOE and international experts in recycling during development, demonstration and deployment of new advanced recycling technologies that recycle nuclear fuel in a manner which does not produce separated plutonium. Creates and maintains the regulatory infrastructure to support the agency's role in licensing a reprocessing facility and a related fuel fabrication facility and vitrification and/or waste storage facility. Lays the groundwork for and prepares NRC to perform its regulatory role for new, expanded, and modified commercial fuel cycle facilities which may include recycling, transmutation and actinide burning. This framework including regulatory processes such as licensing, inspection, assessment of license performance assessment, events analysis, and enforcement will ensure that this technology can be safely and securely implemented commercially in the United States.

**OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS (NMSS)  
Program Planning, Budgeting and Program Analysis Staff (PBPA)**

Provides leadership and coordinates strategic and programmatic planning, resource forecasting and allocation, budgeting through the PBPM process and analysis of office performance through coordination of the operating plan. Manages and coordinates the execution of the office's budget, financial plan and associated contracting activities. Provides administrative and management support, including human resource management, training, information technology, systems analysis, and correspondence/action item control. Ensures compliance with office and agency standards and requirements. Maintains office procedures and letters. Ensures that appropriate quality standards are maintained for work initiated at the office level. PBPA staff will also be responsible for supporting and coordinating office human resource activities, knowledge management, FOIA, internal and external training, office space, office travel planning and utilization of travel resources, correspondence control, and internal controls. Represents the office in intragency and interagency special projects in areas of responsibility and completes special projects assigned by office level management.

**OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS (NMSS)**  
**Division of Spent Fuel Storage and Transportation (SFST)**

Develops and implements the agency's regulatory, licensing, and inspection program for the storage of nuclear reactor spent fuel and the domestic and international transportation of radioactive materials. Serves as the agency lead in spent fuel storage and transportation activities. Ensures that activities and products are consistent with NRC strategic and performance goals. Develops licensing, certification, and quality assurance review criteria and policies. Manages and conducts the safety and environmental reviews of: (1) commercial transportation cask designs under 10 CFR Part 71 and spent fuel storage cask designs under 10 CFR Part 72, including the certification of storage systems under the general license provisions of 10 CFR Part 72; and (2) interim spent fuel and high-level waste storage facilities, including the licensing of nuclear utility specific facilities, private facilities, and a Department of Energy (DOE) centralized facility. Manages and conducts the review of DOE applications for storage and transport systems for the civilian high-level radioactive waste program. Coordinates with the Division of High-Level Waste Repository Safety to manage and implement a seamless regulatory program for a transportation, aging and disposal system for the civilian high-level radioactive waste program. Conducts safety inspections of transport packages and spent fuel storage system vendors. Conducts safety inspections at independent spent fuel storage installations. Conducts inspections of the implementation of quality assurance programs by users, suppliers, and fabricators of NRC-certified transport packages and dry storage systems. Approves quality assurance programs for transportation activities and for fabrication of transportation packages. Develops policy, regulations, and guidance for designers, users, and fabricators of NRC-certified transportation packages and dry spent fuel storage casks. Provides technical and policy guidance to the NRC Regions and licensees on transportation and spent fuel storage. Plans and coordinates activities, as appropriate, with the Advisory Committee on Nuclear Waste (ACNW) in areas of its responsibility. Coordinates and develops guidance with other U.S. Government and International Agencies on transportation policy and safety issues, and provides guidance to industry and the public. Participates in the development of international transportation and spent fuel storage safety standards. Reviews and provides guidance on transportation physical protection issues. Supports NSIR in the development and implementation of safeguards and physical protection requirements for storage and transportation of spent fuel. Provides technical support for incident and emergency response. Ensures that appropriate quality standards are met for Spent Fuel Storage and Transportation Division work and associated products. Ensures that all regulatory activities are consistent with the Commission's openness policy.

**OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS (NMSS)**  
**Division of High-Level Waste Repository Safety (HLWRS)**

Serves as the focal point for project management, integration, technical expertise, and overall coordination of the High-Level Radioactive Waste (HLW) repository safety program consistent with the NRC Strategic Plan and associated Nuclear Waste Safety performance goals and strategies. Responsible for implementation of the regulatory program under the Nuclear Waste Policy Act (NWPA) as amended and the Energy Policy Act of 1992. Implements the NRC and DOE procedural agreement governing pre-licensing consultation for HLW, continually reviewing this agreement to ensure it addresses any changes in the OCRWM program. Also serves as the primary manager for the NRC's Federally Funded Research and Development Center at Southwest Research Institute, the Center for Nuclear Waste Regulatory Analyses (CNWRA). The NRC has structured its pre-licensing program around key technical issues. During pre-licensing, identify issues, interact with DOE and clarify DOE's path to resolution of key technical issues which are important to demonstrating compliance with 10 CFR Part 63 requirements. Track resolution of the issues by DOE to ensure that potential health and safety issues are identified and addressed, thus contributing to the likelihood of a high quality license application. Review DOE work relevant to each issue based upon NRC's independent understanding of these issues which stems from independent technical activities and performance assessment conducted by the NRC and the CNWRA. As the center for technical expertise in earth sciences, geotechnical, mechanical, and structural engineering, and material sciences disciplines, and quality assurance activities, conducts risk informed technical reviews in the HLW program. Develops guidance with respect to specific technical information required for strategies and methodologies, as well as risk informed-performance based, technical evaluations that would be acceptable to demonstrate licensee compliance with applicable high-level waste regulations. Ensures technical completeness, accuracy, and consistency within assigned technical responsibilities. Coordinates with the Division of Spent Fuel Storage and Transportation to manage and implement a seamless regulatory program for a transportation, aging and disposal system for the civilian high-level radioactive waste program. Interfaces with the U.S. Environmental Protection Agency and others in the development of environmental radiation protection standards for high-level waste management and disposal. Reviews regulatory requirements and relevant pre-licensing, and licensing documents. Plans and coordinates pre-licensing activities, as appropriate, with the Advisory Committee on Nuclear Waste (ACNW) in areas of its responsibility. Responsible for coordination with the international community regarding engineering, geoscience and performance assessment activities and development of criteria for HLW disposal. Supports NSIR in the development and implementation of physical protection requirements for disposal of spent fuel and high level waste. Provides technical support for incident and emergency response. Ensures that appropriate quality standards are met for High-Level Waste Repository Safety Division work and associated products. Ensures that all regulatory activities are consistent with the Commission's openness policy. Responsible for engaging in activities to communicate with the public about the role of the NRC in the nation's HLW program.

**OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS (NMSS)**  
**Division of Fuel Cycle Safety and Safeguards (FCSS)**

The Division of Fuel Cycle Safety and Safeguards (FCSS) develops, implements, and evaluates overall agency safety and safeguards policy for fuel cycle facilities, using special nuclear material, including uranium enrichment and conversion, MOX and uranium fuel fabrication and processing facilities, licensed under the Atomic Energy Act of 1954, as amended, or certified in accordance with the Energy Policy Act of 1992. Directs the NRC's principal licensing, certification, inspection, and other regulatory activities associated with these facilities to assure adequate safety and safeguards. Ensures implementation of risk informed and performance based approaches where feasible and practical. Has lead responsibility for domestic and international safeguards policy and regulation for fuel cycle facilities, including material control and accountability (MC&A). Directs NRC contingency and response operations dealing with accidents, events, and incidents under its responsibility. Ensures appropriate coordination on physical security activities with the Office of Nuclear Security and Incident Response (NSIR) and others. Responsible for emergency preparedness for materials regulated by NMSS. Provides support to the regions, NSIR and others for emergency response and in the evaluation of accidents, events, incidents, threats, thefts, and radiological sabotage relating to licensed activities under its responsibility. Provides technical support for training and guidance to NRC headquarters and regional office licensing and inspection staff. Ensures the quality of FCSS activities and work products. Plans and coordinates activities, as appropriate, with the Advisory Committee on Nuclear Waste (ACNW) in areas of its responsibility. Responsible for regulation and licensing of commercial waste processing recycling technologies including actinide conversion and transmutation technologies. In order to support development of an appropriate regulatory framework, interacts with DOE and international partners in the Global Nuclear Energy Partnership during development, demonstration and deployment of new advanced recycling technologies such as UREX, pyro-processing, actinide conversion transmutation technologies, that recycle nuclear fuel in a manner which does not produce separated plutonium. This framework, including regulatory processes such as licensing, inspection, assessment of licensee performance, events analysis, and enforcement, ensures that this technology can be safely and securely implemented commercially. Create the regulatory infrastructure for licensing a reprocessing facility, an actinide conversion, transmutation or associated technology facility, a fuel fabrication facility, and vitrification and/or waste storage facility with specialized process and waste streams. Coordinates with other NRC Divisions and Offices as appropriate. Evaluates and regulates safeguards, including material control and accounting, during the planning and design for new facilities, and provides regulatory review of safeguards which will be incorporated in the design through an integrated systems approach. Takes the lead for international safeguards from a regulatory perspective for these advanced safeguards technologies. NMSS will coordinate closely with NSIR to ensure these advances are considered in physical security requirements for these facilities. Ensures that feedback from these advanced safeguards technologies are considered in safeguarding other domestic fuel cycle facilities. Reviews the international safeguards and technical aspects of export licensing and retransfer requests. Conducts and coordinates NRC activities in support of implementation of IAEA safeguards at NRC licensed facilities.