

WRITTEN STATEMENT  
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UNITED STATES NUCLEAR REGULATORY COMMISSION  
TO THE  
SENATE APPROPRIATIONS COMMITTEE  
SUBCOMMITTEE ON ENERGY AND WATER DEVELOPMENT  
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Good afternoon Chairman Alexander, Ranking Member Feinstein, and distinguished members of the Subcommittee. My colleagues and I appreciate the opportunity to appear before you to discuss the U.S Nuclear Regulatory Commission's (NRC) Fiscal Year (FY) 2019 budget request.

The NRC is an independent Federal agency established to regulate commercial nuclear power plants; research and test reactors; nuclear fuel cycle facilities; and radioactive materials used in medicine, academia, and for industrial purposes. The agency also regulates the transport, storage, and disposal of radioactive materials and waste and the export and import of radioactive materials.

The agency's statutory mission is to license and regulate the civilian use of radioactive materials in the United States, to ensure adequate protection of public health and safety, and to promote the common defense and security. The FY 2019 budget request reflects the agency's continued commitment to improving effectiveness, efficiency, and accountability, including increasing the use of risk information in regulatory decision-making.

The NRC's FY 2019 budget request, including resources for the NRC's Office of Inspector General (OIG), is \$970.7 million. The FY 2019 request represents an overall increase of \$48.7 million, including an increase of 61 full-time equivalent employees (FTE) compared with the FY 2018 enacted budget. This requested increase in resources is largely tied to the proposed

activities related to the license application (construction permit) for the Yucca Mountain deep geologic repository for spent nuclear fuel and other high-level radioactive waste and for further development of the regulatory infrastructure necessary to review advanced nuclear reactor technologies.

In FY 2019, the NRC proposes to recover \$815.4 million of the requested FY 2019 budget from fees assessed to NRC licensees. This will result in a net appropriation of \$155.3 million, with \$47.7 million to be derived from the Nuclear Waste Fund, which is an increase of \$23.7 million in net appropriations compared with the FY 2018 enacted budget. The requested increase is primarily the result of activities related to Yucca Mountain licensing, which are not fee-billable and must be recovered from the Nuclear Waste Fund, and the development of capabilities and tools for the review of advanced nuclear reactor technologies. We are still in the process of assessing the impacts of the enacted budget on individual program areas, so the budget comparisons in the remainder of this testimony will be to the FY 2018 annualized continuing resolution.

Before discussing the specifics of the NRC's FY 2019 budget request, I'll discuss several key issues being addressed by the Commission.

### Yucca Mountain

The NRC continues to provide monthly updates to Congress on its activities in response to the decision issued by the U.S. Court of Appeals for the District of Columbia Circuit in *In re Aiken County*, focusing on our efforts to spend most effectively the limited remaining unobligated carryover funds appropriated from the Nuclear Waste Fund to continue with the licensing processes for Yucca Mountain. As part of those efforts the agency has completed the remaining

four volumes of its safety evaluation report and a supplement to the Department of Energy's Environmental Impact Statement.

In February of this year, the Licensing Support Network Advisory Review Panel (LSNARP) conducted a public meeting with stakeholders, including the state of Nevada, in order to provide information to and gather input from advisory panel members and the public regarding a suitable replacement or possible reconstitution of the Licensing Support Network (LSN). The LSN was originally established by the NRC to provide access via the internet to documents associated with Yucca Mountain licensing proceedings and activities. LSNARP members and members of the public were provided an opportunity to submit additional written comments regarding matters discussed at the meeting by the end of March. After all of the comments have been reviewed, the NRC staff will provide the Commission options for reconstituting the LSN or developing a suitable replacement system for accessing the related documents should the Yucca Mountain licensing adjudication resume in the future.

### Efficiency and Effectiveness

Several years ago, the NRC initiated a strategic initiative to "right size" the agency and its budget. This work has resulted in reductions in the NRC's budget and staff. From 2014 to the proposed FY 2019 request, excluding high level waste activities, we have reduced our budget by 13% from \$1.1 billion to \$970.7 million. The number of FTE has been reduced from around 3,800 to about 3,250. The NRC identified 150 agency-wide activities to discontinue or perform with fewer resources. Of these, 149 tasks have been completed and the remaining task is on schedule. The agency's current efforts to improve efficiency, effectiveness, and accountability

go beyond previous efforts and the FY 2019 budget reflects additional opportunities to transform agency processes and increase the use of risk information in regulatory decision-making.

The NRC's ability to innovate will facilitate our long-term success in ensuring the safe and secure use of nuclear materials in the 21st century. In January of this year, the agency's Executive Director for Operations established an NRC Transformation Team to identify potential transformative changes to the NRC's regulatory framework, culture, and infrastructure. This team has been engaging a variety of sources both internal and external to the NRC, including the nuclear industry, non-governmental organizations, public organizations, private companies, and federal agencies such as the Department of Transportation and the National Aeronautics and Space Administration. Ultimately, the team will recommend specific areas for transformative initiatives for Commission consideration.

#### New Small Modular Reactors and Advanced Reactors

We received the first application for certification of a small modular reactor (SMR) from NuScale at the beginning of 2017. The agency also is reviewing an early site permit application from the Tennessee Valley Authority for two or more SMR modules at the Clinch River site in Roane County, Tennessee. We anticipate starting additional SMR pre-application reviews in FY 2019 and beginning one or more advanced reactor application reviews in the next two to four years.

#### Congressional Budget Justification Improvements

Improvements in the FY 2019 Congressional Budget Justification include increasing transparency by including a statement regarding how the budgeted resources impact fees in each programmatic business line. In addition, the NRC's Congressional Budget Justification includes the Annual Performance Plan, which provides the performance goals as well as

performance indicators and criteria associated with the goals and objectives established in the agency's strategic plan.

### FY 2019 Budget Request

I would now like to highlight specific elements of the FY 2019 budget request.

#### **Nuclear Reactor Safety**

The NRC's Nuclear Reactor Safety Program encompasses licensing and oversight of civilian nuclear power, research and test reactors, and medical isotope production facilities in a manner that adequately protects public health and safety. This program also provides reasonable assurance of the security of facilities and protection against radiological sabotage. This program contributes to the NRC's safety and security strategic goals through the activities of the Operating Reactors and New Reactors Business Lines that regulate existing and new nuclear reactors to ensure their safe and secure operation.

Overall resources requested in the FY 2019 budget for Nuclear Reactor Safety are \$474.8 million, including 1,925 FTE. This represents an overall funding increase of \$25.8 million, yet includes a decrease of 123 FTE, when compared with the FY 2018 annualized continuing resolution (CR). The increase in the Operating Reactors Business Line is largely a result of research activities funded with authorized prior year unobligated carryover in FY 2017 and reflects a change to the fund source. In addition, salaries and benefits increased in FY 2018. This budget also includes \$10.3 million for the continued development of a regulatory infrastructure for advanced nuclear reactor technologies. The budget request reflects ongoing work on the agency plan to merge the Office of Nuclear Reactor Regulation and the Office of New Reactors by 2020.

## Operating Reactors

The Operating Reactors Business Line portion of the Nuclear Reactor Safety Program encompasses the regulation of 99 operating civilian nuclear power reactors and 31 research and test reactors. The NRC is requesting \$375.6 million for operating reactors, including 1,531 FTE, which represents an overall funding increase of \$21.8 million from the FY 2018 annualized CR. The increase in resources is largely a result of research activities funded using authorized prior year unobligated carryover in FY 2017. In addition, resources increase to support the following activities: (1) potassium iodide replenishment for nine States; (2) continued development of accident-tolerant fuel (ATF) licensing framework; (3) review of one new subsequent license renewal (SLR) application (Surry nuclear power plant in Surry, Virginia) and the continuing review of two SLR applications (Peach Bottom in Delta, PA and Turkey Point in Homestead, FL); (4) increased risk-informed licensing activities and license amendment requests, work related to the risk-informed steering committee, and knowledge management and training to support increasing the staff's capabilities to use risk information in decision-making; (5) research activities on safety and security of digital systems, materials degradation, cable aging, and concrete degradation; (6) increased workload to consolidate high-performance computing services and migration to the cloud; and (7) increased workload to enhance the Replacement Reactor Program System (R-RPS) to support new reactor inspection/licensing and regulatory changes and functionality currently provided by various new reactor systems.

These increases are partially offset by decreases resulting from (1) a reduction in Fukushima Near-Term Task Force "Tier 1" work related to the agency's Mitigating Strategies Order, reevaluations of flooding and seismic hazards, and the Hardened Vents Order, as well as the completion of "Tier 2" and "Tier 3" work; (2) a reduction in license renewal inspections; (3) a reduction in force-on-force inspections due to additional plants entering decommissioning; (4)

the closure of the Fort Calhoun Station near Omaha, NE; (5) the re-baselining of agency resources; and (6) a reduced workload to implement the R-RPS and maintain legacy RPS (to be decommissioned in FY 2018).

### New Reactors

The New Reactors Business Line portion of the Nuclear Reactor Safety Program is responsible for licensing and overseeing the design, siting, and construction of new nuclear power reactors, including SMRs and advanced reactors. The new reactors activities ensure that new civilian nuclear power reactor facilities are developed in a manner that protects the health, safety, and security of the public in an efficient manner.

The FY 2019 budget request for new reactors is \$99.1 million, including 394 FTE, a funding increase of \$3.9 million, yet includes a decrease of 61 FTE, when compared with the FY 2018 annualized CR.

The NRC continues to interact with vendors about prospective SMRs and advanced reactor applications. Additionally, we will continue to refine our regulatory processes as we prepare to review these potential applications.

During FY 2019, we will continue to review reactor design certification applications for NuScale (SMR) and U.S. APWR (a large light water reactor); conduct licensing reviews for Blue Castle Holdings, Inc. and Utah Associated Municipal Power Systems, and conduct an early site permit review for the Tennessee Valley Authority's Clinch River Nuclear Site. Additional resources will be allocated to support the potential application review and construction oversight for two reactors at the Bellefonte Nuclear Station near Scottsboro, AL. The NRC also will continue

conducting inspections at the two reactors under construction at Vogtle Electric Generating Plant in Waynesboro, GA.

### **Nuclear Materials and Waste Safety**

The Nuclear Materials and Waste Safety Program is responsible for licensing, regulating, and overseeing nuclear materials in a manner that adequately protects the public health and safety. Through this program, the NRC regulates uranium processing and fuel facilities, research and pilot facilities, and other nuclear materials licensees such as medical, industrial, research, and academic uses. Additionally, through this program, the NRC regulates spent fuel storage, spent fuel and material transportation and packaging, decontamination and decommissioning of facilities, and low-level and high-level radioactive waste activities. The FY 2019 budget request for this program is \$183.7 million, including 650 FTE. This funding level represents an overall funding increase of \$46.8 million, including an increase of 82 FTE, when compared with the FY 2018 annualized CR budget. This increase is due to \$47.7 million, including 124 FTE, for work on the license application (construction permit) for the proposed Yucca Mountain deep geologic repository for spent nuclear fuel and other high-level radioactive waste that was not included in the FY 2018 annualized CR.

### **Fuel Facilities**

The Fuel Facilities Business Line portion of the Nuclear Materials and Waste Safety Program is responsible for ensuring that fuel cycle facilities are licensed and operated in a manner that adequately protects public health and safety and promotes the common defense and security. The FY 2019 budget request for fuel facilities is \$25.2 million, including 107 FTE, which represents a funding increase of \$0.5 million, and a decrease of 6 FTE, when compared with the FY 2018 annualized CR.



### Nuclear Materials Users

The Nuclear Materials Users Business Line portion of the Nuclear Materials and Waste Safety Program supports the licensing and oversight necessary to ensure the safe and secure processing and handling of nuclear materials. The FY 2019 budget request for nuclear materials activities is \$60.6 million, including 215 FTE, a funding decrease of \$2.9 million and a decrease of 23 FTE compared with the FY 2018 annualized CR.

### Spent Fuel Storage and Transportation

The Spent Fuel Storage and Transportation Business Line portion of the Nuclear Materials and Waste Safety Program supports the safe and secure storage of spent fuel and the safe and secure transport of radioactive materials. These activities include licensing, oversight, rulemaking, international activities, research, and generic homeland security.

The FY 2019 budget request for spent fuel and transportation is \$24.8 million, including 100 FTE, a funding increase of \$2.5 million and a decrease of 2 FTE when compared with the FY 2018 annualized CR. Resources increase primarily under the Licensing Product Line to support safety, security, emergency preparedness, and environmental reviews for two concurrent applications for a consolidated interim storage facility; the effort to update/consolidate the standard review plan; anticipated legal activities; and to support Independent Spent Fuel Storage Installation license renewals.

In February, the NRC formally docketed an application by Holtec, Inc. to construct and operate a consolidated interim storage facility for spent fuel from commercial nuclear power reactors in Lea County, New Mexico. Holtec seeks to store up to 8,680 metric tons of uranium in commercial spent fuel at the site in underground storage systems for a 40-year license term.

The other application for a consolidated interim storage facility was submitted by Waste Control Specialists (WCS) to build and operate a facility near Andrews, Texas. That application was docketed for review in January 2017, but the review was suspended in April 2017 at the applicant's request. Recently, WCS announced its intent to request that the NRC staff resume its review.

### Decommissioning and Low-Level Waste

The Decommissioning and Low-Level Waste (LLW) Business Line portion of the Nuclear Materials and Waste Safety Program supports licensing and oversight associated with the safe and secure operation of uranium recovery facilities, decommissioning of nuclear facilities, and disposition of low-level radioactive waste from all civilian sources. The FY 2019 budget request for decommissioning and LLW is \$25.4 million, including 104 FTE, an overall funding decrease of \$1.0 million and a decrease of 11.0 FTE when compared with the FY 2018 annualized CR.

The FY 2019 budget request provides funding for a number of major activities to include oversight of the national LLW management program and monitoring of the Department of Energy's waste-incident-to-reprocessing determinations and related disposal actions at the Savannah River Site and the Idaho National Laboratory. Other noteworthy LLW activities include decommissioning activities for two research reactors and 20 power reactors.

Under the Licensing Product Line, fewer resources are needed because of the expected decline in workload resulting from Wyoming's anticipated transition to Agreement State status in late calendar year 2018. When this agreement is approved and implemented, the NRC will discontinue its regulatory authority over certain uranium and thorium milling activities and

transfer regulatory authority and related licenses to the State of Wyoming. Currently, approximately 70 percent of NRC-licensed uranium recovery facilities are located in the State of Wyoming. Additionally, resources decrease to reflect the expected workload decline with the non-military radium program. These decreases are partially offset by increases to support various rulemaking activities, including the Greater-Than-Class-C and Transuranic Waste rulemakings.

### High-Level Waste

The High-Level Waste Business Line portion of the Nuclear Materials and Waste Safety Program supports the NRC's activities for the proposed Yucca Mountain deep geologic repository for the disposal of spent nuclear fuel and other high-level radioactive waste using appropriations from the Nuclear Waste Fund. The FY 2019 budget request for high-level waste is \$47.7 million, including 124 FTE. FY 2019 resources would include support to the adjudicatory proceeding; infrastructure activities for information technology capabilities; rulemakings associated with the geologic repository operations area; and related support activities such as acquisitions, recruitment, and staffing.

### Corporate Support

The NRC's corporate support involves centrally managed activities that include acquisitions, administrative services, financial management, human resource management, information technology and information management, training, outreach, and policy support. The FY 2019 resources requested for corporate support constitute 31 percent of the agency's total budget and reflect an overall increase of \$1.5 million, yet include a decrease of 108 FTE, when compared with the FY 2018 annualized CR. The FY 2019 budget request supports the NRC's continued efforts to modernize IT to increase productivity and security, improve the efficiency

and effectiveness of administrative services, develop a workforce for the 21<sup>st</sup> century, focus on the highest-value work, and improve customer service. Resources increase in FY 2019 primarily as a result of investments in IT and an increase in salaries and benefits in FY 2018.

#### Office of Inspector General

The NRC's OIG is a statutory entity whose mission is to independently and objectively audit and investigate programs and operations to promote effectiveness and efficiency, and to prevent and detect fraud, waste, and abuse. The FY 2019 budget request for the NRC OIG is \$12.6 million, which includes approximately \$11 million in salaries and benefits to support 63 FTE, and \$1.6 million in program support. These resources will support Inspector General auditing and investigation functions for both the NRC (\$11.5 million) and the Defense Nuclear Facilities Safety Board (\$1.1 million).

#### FY 2018 Proposed Fee Rule

I would like to turn to some key elements of the fees for FY2018. The NRC adjusts its licensing, inspection, special project, and annual fees charged to its applicants and licensees each year. These adjustments are necessary to implement the requirements of the Omnibus Budget Reconciliation Act of 1990. The Act requires the NRC to recover approximately 90 percent of its annual budget through fees. Certain items like the Nuclear Waste Fund, generic homeland security activities, waste incidental to reprocessing, advanced reactor regulatory infrastructure development, international activities, and Inspector General services to the Defense Nuclear Facilities Safety Board are excluded from the fee-recoverable portion of the budget.

The NRC proposed to collect \$826.7 million in fees in the proposed FY 2018 Fee Rule. However, based on the recently enacted appropriations bills, the NRC now anticipates needing

to collect approximately \$790.3 million in fees for FY 2018.

The fees are collected by two primary methods. Licensees are charged an annual fee or directly billed for services including license amendments, license renewals, and inspections. In setting the fees each year, the NRC uses the most recent four quarters of licensee activity and additional information from licensees regarding plans to conduct significant work to project the expected amount of work that will be directly billed during the fiscal year. The remaining portion of the fee-recoverable budget is collected through annual fees assessed to each licensee.

The public comment period for the proposed FY 2018 Fee Rule ended on February 26, 2018. The agency has received input from a number of industry stakeholders expressing concerns with increasing fees, particularly in areas where the number of licensees are declining (e.g., uranium recovery, fuel facilities, and operating reactors). We are mindful of the impact on fees, particularly as the number of licensees declines within a fee category. Our goal is to ensure that our fees are equitable, fair, and transparent. We monitor such declines and seek to mitigate the impact on the remaining facilities, where possible. We are also committed to continuing to examine and adapt our fee structure within the bounds of our authority to do so in response to a changing industry.

## **CLOSING**

In closing, safety and security have always been the main focus of the NRC. This budget request reflects our continuing efforts to achieve additional efficiencies while maintaining reasonable assurance of adequate protection of public health and safety and the security of our nation.

Chairman Alexander, Ranking Member Feinstein, and distinguished Members of the Subcommittee, this concludes my written testimony. On behalf of the Commission, I thank you for the opportunity to appear before you. Thank you also for your support of the vital mission of the NRC. We would be pleased to respond to your questions.