WRITTEN STATEMENT BY

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Good morning, Chairman Markey and distinguished members of the subcommittee. My name is John Lubinski, and I am the Director of the Office of Nuclear Material Safety and Safeguards at the U.S. Nuclear Regulatory Commission. I appreciate the opportunity to testify before you today to discuss the NRC's role and responsibilities associated with decommissioning.

The NRC's role in decommissioning is to regulate and oversee the safe dismantlement of nuclear power reactor sites to provide adequate protection of public health and safety, and the environment. The NRC accomplishes this through implementation of our decommissioning regulations and oversight programs, which include opportunities for public engagement during each step of the decommissioning process.

In 1997, the NRC established the current decommissioning regulatory framework. Since that time, the NRC has safely terminated the licenses at almost 80 sites, including 11 nuclear power reactors. As of today, there are 25 nuclear power reactors at 19 locations undergoing decommissioning at various sites across the country. Of those 25 nuclear power reactors, 17 are undergoing active dismantlement and decontamination of the site, and 8 nuclear power reactors are in what is termed "SAFSTOR"—a safe, temporary status that is allowed by regulations to allow some of the shorter-lived radioactive elements time to decay prior to entering the active dismantlement phase of decommissioning. Recently, more plants

undergoing decommissioning have been choosing to immediately begin active decommissioning so that the sites can be returned to unrestricted use more quickly.

Key actions in the nuclear power reactor decommissioning process are the certification to the NRC of permanent cessation of operations and removal of fuel; submittal and implementation of the post-shutdown decommissioning activities report (or PSDAR); submittal of the license termination plan (or LTP); Commission approval of the LTP; implementation of the LTP; completion of decommissioning by the licensee; and final review and termination of the license. The NRC provides opportunities for public engagement throughout the process and is required by its regulations to hold public meetings in the vicinity of the facility to obtain public comments on both the PSDAR and the LTP; the LTP is approved by license amendment, which includes an opportunity for members of the public to request a hearing. The NRC reviews and terminates the license only after independently verifying the licensee has met all regulatory requirements.

I would like to talk a little more about three key steps in the decommissioning process: specifically, the submission of the PSDAR, the review and approval of the LTP, and license termination. NRC regulations specify the content of the PSDAR, including the licensee's high-level communication plan, planned decommissioning activities and schedule, and the status of the decommissioning trust fund. The licensee cannot perform any major decommissioning activities until 90 days after the NRC has received the PSDAR, which provides the NRC time to review the licensee's plans for decommissioning the site. After this time, the licensee can perform decommissioning activities provided that the activities do not preclude release of the site for possible unrestricted use, result in significant environmental impacts not previously reviewed, or result in loss of reasonable assurance that adequate funds will be available for decommissioning.

Licensees of decommissioning nuclear power reactors must submit an application to terminate their license, accompanied or preceded by the LTP, which must be submitted at least

two years before the license termination date. LTPs must identify remaining dismantlement activities and must include a site characterization, plans for site remediation, a detailed plan for the final radiation survey of the site, and updated site decommissioning costs. The NRC reviews and approves the LTP, and licensees must evaluate any changes to the LTP, including receiving NRC approval for certain changes.

The Commission will terminate a license only after it determines that the licensee has met all regulatory requirements and all aspects of its LTP through document review, onsite inspection, and confirmatory surveys.

For most decommissioned nuclear power reactors, an Independent Spent Fuel Storage Installation (ISFSI) remains following decommissioning. An ISFSI is usually comprised of spent fuel in dry storage casks on a concrete pad. The NRC regulates ISFSI licensees and continues to inspect these facilities and enforce regulations to protect the stored spent nuclear fuel until the spent fuel is removed and the site is completely decommissioned.

In addition to establishing license requirements, our oversight program includes onsite inspections for routine programmatic reviews and high-risk activities. The NRC's oversight program and guidance also define pertinent NRC follow-up actions for any deficiencies identified during the decommissioning inspections that require licensee corrective actions. The NRC's oversight of decommissioning nuclear power plants continues until all licensed material is removed from the site, including the ISFSI. At recently shut down reactor sites, the resident inspector typically remains at the site for approximately 2 to 3 months after shutdown to verify all operational issues have been evaluated. Inspections during decommissioning focus on key safety areas such as spent fuel pool safety and fire protection. The decommissioning inspection program continues until the reactor license is terminated, and the inspections of the onsite dry fuel storage facility will continue until all the spent fuel is removed from the site and the storage facility is decommissioned.

The NRC's regulations also include provisions for the establishment of independently managed decommissioning trust funds dedicated to decommissioning each facility. These trust funds are established at initial license issuance and are maintained such that the total amount of funds would be sufficient to pay for decommissioning costs at the time of permanent shut down. Licensees are required to regularly report to the NRC the status of their funds and to compare the amount of funds to the expected decommissioning costs. These reports are independently reviewed by the NRC to confirm that there is adequate funding for the decommissioning of the facilities.

Decommissioning nuclear power reactors are currently subject to many of the same requirements as operating nuclear power reactors even though decommissioning power reactors have significantly lower potential consequences than operating power reactors. NRC regulations establish safety and security requirements for the commercial operation of nuclear power plants. But the NRC currently does not have separate requirements in its regulations to account for the significantly lower risk of an offsite radiological release and significantly fewer types of possible accidents—that also are less severe—associated with a permanently shut down and defueled nuclear power reactor that is undergoing decommissioning. As a result, the NRC has granted, on a case-by-case basis, exemptions from certain requirements including emergency preparedness and physical security for power reactor licensees entering decommissioning. With 10 power plants shut down in the 1990s and another 12 since 2013, many of these licensees were granted at least some of these exemptions; and it has become clear that the NRC's decommissioning regulations need to be revised to make the transition from plant operations to decommissioning more effective and efficient. In 2014, the Commission directed the NRC staff to proceed with rulemaking on nuclear power reactor decommissioning. The NRC published a decommissioning proposed rule in the Federal Register on March 3rd of this year. The proposed rule would implement specific regulatory requirements for different phases of the decommissioning process, consistent with the reduced

risk. The proposed regulations would incorporate lessons learned from plants that have recently transitioned to decommissioning and would improve the effectiveness and efficiency of the regulatory framework. This would allow both the licensee and the NRC to focus efforts on safety and timely decommissioning of the facilities and the return of the land for future unrestricted uses while protecting people and the environment.

The NRC believes addressing the decommissioning requirements through rulemaking provides maximum transparency through an established process that ensures consideration of public comments and input. In fact, public engagement and comment has twice played an important role in the development of this proposed rule when we published an advance notice of the proposed rulemaking and later a draft regulatory basis. The NRC used public comments on these documents to help develop the decommissioning proposed rule. The NRC is committed to continuing to engage with the public regarding the issues discussed in the proposed rule. The proposed rule specifically requests public comments on various topics. A few that I would like to bring to your attention include requests for comment on whether the NRC should approve the PSDAR and whether the NRC should include changes regarding the role of state and local governments in the decommissioning process and the timeframe for decommissioning in the rule. The public comment period for the proposed rule is 75 days and ends on May 17, 2022. During the public comment period, the NRC is holding six public meetings across the country to facilitate stakeholders providing comments, five of which have already been held. The last meeting will be on the evening of Monday, May 9, 2022, in the Hotel 1620 at Plymouth Harbor, 180 Water St., Plymouth, MA.

Chairman Markey and distinguished member of the Subcommittee, I want to thank you for the opportunity to speak today on these important issues with the Pilgrim Nuclear Plant decommissioning and the NRC's role of regulating and overseeing the safe decommissioning of nuclear power reactors to provide adequate protection of public health and safety and the environment.