Background for the U.S. Nuclear Regulatory Commission staff's September 27, 2019, Public Meeting on the Nuclear Energy Innovation and Modernization Act and the Potential Impact on Non-Power Reactors.

Section 106, "Encouraging Private Investment in Research and Test Reactors," of the Nuclear Energy Innovation and Modernization Act (NEIMA), enacted by Congress on January 14, 2019, changes the framework by which the U.S. Nuclear Regulatory Commission (NRC) determines whether a utilization facility is licensed under Section 103 or Section 104c of the Atomic Energy Act of 1954, as amended (AEA). The new law amended Section 104c of the AEA to include cost recovery requirements to determine whether a utilization facility is licensed for research and development purposes or industrial or commercial purposes. Before NEIMA, the AEA did not limit how these utilization facilities recovered money from commercial activities.

The current requirement in Section 50.22, "Class 103 licenses; for commercial and industrial facilities," of Title 10 of the Code of Federal Regulations (10 CFR) considers the amount of money a production or utilization facility spends on commercial activities. Under the current 10 CFR 50.22, a production or utilization facility is licensed for industrial or commercial purposes under Section 103 of the AEA "if the facility is to be used so that more than 50 percent of the annual cost of owning and operating the facility is devoted to the production of materials, products, or energy for sale or commercial distribution, or to the sale of services, other than research and development or education or training." If 50 percent or less of the annual cost of owning and operating the facility is devoted to commercial activities, then the facility is licensed under Section 104c of the AEA as a facility for research and development.

Section 106 of NEIMA changed Section 104c of the AEA to focus on how the facility's costs are recovered. Specifically, NEIMA added, "The Commission is authorized to issue licenses under this section for utilization facilities useful in the conduct of research and development activities of the types specified in section 31 [of the AEA] in which the licensee sells research and testing services and energy to others, subject to the condition that the licensee shall recover not more than 75 percent of the annual costs to the licensee of owning and operating the facility through sales of nonenergy services, energy, or both, other than research and development or education and training, of which not more than 50 percent may be through sales of energy."

To implement this revised licensing authority, the NRC will apply the new cost recovery requirements in section 104c of the AEA to research reactors that are currently in the license renewal process and any applicable new or renewed license applicants. The changes made to Section 104c of the AEA by NEIMA did not address the applicability of the new cost recovery requirements to current utilization facility licensees that are not in the license renewal process and will not undergo license renewal in the future. The NRC could apply the new cost recovery requirements to these licensees or continue to apply the current requirements in 10 CFR 50.22 to these licensees. In order to inform this decision, the NRC is seeking input from the public and regulated community on the potential impact of this aspect of Section 106 of NEIMA.