U.S. Nuclear Regulatory Commission Licensing Activities Related to Molybdenum-99 Production

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ABSTRACT

This paper provides an update on U.S. Nuclear Regulatory Commission (NRC) licensing activities relating to the establishment of a domestic molybdenum-99 (Mo-99) supply in the United States. Currently, two construction permit applications and one operating license amendment request supporting Mo-99 production are under NRC staff review. In March 2015, the NRC issued a material possession license for small-scale demonstration of superconducting linear accelerator technology. Thorough and timely reviews of current and anticipated license applications are facilitated by public engagement and infrastructure development. Public meetings supplement application reviews, serving as an effective forum for applicants to engage with NRC staff on facility-specific technical and licensing considerations. Ongoing infrastructure development efforts include the analysis of the NRC’s regulatory framework and development of guidance. As applicable, the NRC is coordinating environmental review work with the U.S. Department of Energy and supporting utilization facility site vulnerability assessments conducted by the U.S. Department of Homeland security.