2018 Mo-99 Topical Meeting on Molybdenum-99 Production Technology Development

SEPTEMBER 23-26, 2018 HILTON KNOXVILLE HOTEL KNOXVILLE, TN

Argonne Support for Domestic and International Mo-99 Programs

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ABSTRACT

For domestic Mo-99 work, Argonne has assisted multiple potential US Mo-99 producers for the past several years by developing flowsheets for production, recovery, and purification, designing columns for Mo-99 separation and recovery, dissolving and recycling targets, generating waste immobilization and disposal pathways, and taking processes from the benchtop to the pilot-scale. On the international side, Argonne has assisted multiple Mo-99 producers in developing targets and processes for conversion from HEU to LEU. Some key successes include shipping curie quantities of Mo-99 produced at Argonne for testing on a commercial Tc-99m generator and on a new separation system developed to handle low specific activity Mo-99. Additionally, Argonne has played an important role in helping international Mo-99 producers fully convert from the use of HEU to LEU. This presentation will highlight the important work that Argonne has done to support both domestic and internal Mo-99 work.

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