

**Mo-99 2016 TOPICAL MEETING ON
MOLYBDENUM-99 TECHNOLOGICAL DEVELOPMENT**

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**Reactor-Based Mo-99 Supply
Using Selective Gas Extraction: Update**

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ABSTRACT

Tremendous progress has been made since this reactor-based Mo-99 supply system project was initiated in July 2015 with the GA, MURR® and Nordion team. This project uses existing nuclear infrastructure located in the United States and Canada to provide a North American source of Mo-99 suitable for use in all existing Tc-99m generators. In the last year, in-situ Selective Gas Extraction (SGE) has been replaced by a simplified process in which single-use targets are irradiated in the MURR reactor reflector region and transferred from the reactor pool to a hot cell for SGE extraction of Mo-99. This method closely aligns with the approaches the NRC and FDA are accustomed to reviewing. Recent experiments demonstrate that the SGE technology provides high yield Mo-99 extractions without generating a liquid waste stream. This paper provides an update on the project.