ID: **O2.4-106** Type: **Oral**

Production of Mo-99 without Use of Uranium

Tuesday 29 June 2021 14:50 (10 minutes)

NorthStar has embarked on two parallel paths to produce Mo-99 and other medical radioisotopes without use of any uranium material. The first path, which was approved by the US FDA in February 2018, is via neutron capture utilizing a research reactor. In this pathway, NorthStar can use either high-purity natural molybdenum discs or can use target material of enriched molybdenum-98. This pathway has successfully been producing Mo-99 and delivering to the US market for more than two years. The second path, scheduled for production start in late 2022, is the use of electron accelerators to perform photon transmutation using enriched molybdenum-100 target material. In either case, NorthStar's emissions of gaseous radioisotopes of krypton, iodine or xenon are virtually non-existent. This presentation will provide a review of the production processes and an update to current program status.

Promotional text

Primary author: Mr HARVEY, James (NorthStar Medical Technologies, LLC, Beloit, USA)

Presenter: Mr HARVEY, James (NorthStar Medical Technologies, LLC, Beloit, USA)

Session Classification: T2.4 - Atmospheric and Subsurface Radionuclide Background and Dispersion

Track Classification: Theme 2. Events and Nuclear Test Sites: T2.4 - Atmospheric and Subsurface Radionuclide Background and Dispersion