ID: Type: **Oral**

# of Medical Isotope Production

Medical isotope production has recently been identified as a source of radioxenon in the atmosphere which can pose a potential problem for the International Monitoring System. The quantity of xenon released and the xenon isotopic ratios observed are variable between facilities and also within a facility. The reasons for the differences can be understood with knowledge of the fundamental processes associated with medical isotope production. This work will be a brief tutorial on the steps used for the production of Mo-99, highlighting the areas of variability. The process steps discussed will begin with irradiation and move through chemical processing, abatement, and stack monitoring and emissions. The discussions will focus on generic examples and will not give individual facility specific details.

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