

Reflections on Four Years of Conversion Experience

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ABSTRACT

Using the SAFARI-1 research reactor and ^{99}Mo production facilities at Pelindaba NTP continues to produce and distribute significant quantities of ^{99}Mo for the world nuclear medicine market. Since commencing the development of an LEU based ^{99}Mo production process in early 2007 and the achievement of the first successful large scale LEU ^{99}Mo production in 2010, NTP has continued, together with its customers, with efforts to fully convert from HEU to LEU. Although the uptake of LEU-based ^{99}Mo is slower than expected, steady progress continues to be made.

The economics of the ^{99}Mo supply chain remain cause for concern with the critically important $^{99\text{m}}\text{Tc}$ isotope continuing to be significantly undervalued. Added to this, the uncertainty and possibly unrealistic time frames of the proposed new production entrants could justifiably pose questions on the longer term sustainability of the industry.

As early as 2010, NTP together with its long-standing supply partners have implemented a realistic strategy to ensure reliable supply of ^{99}Mo post 2016 and long-term sustainability of SPECT-based nuclear medicine.

This presentation provides a status update on the conversion project at NTP and reflects on the experiences of the past 4 years while questioning the risks facing the industry in the future.