



Securing Mo-99 Supply for LEU TechnoLite[®] Generator Production

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DOE Mo-99 Topical Meeting
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Lantheus Medical Imaging

Company Overview

- Lantheus Holdings, Inc. (NASDAQ: LNTH) is the parent company of Lantheus Medical Imaging Inc.
- A global leader in innovative diagnostic medical imaging agents
- Products used to diagnose coronary artery disease, congestive heart failure, stroke, peripheral vascular disease and other diseases (one therapeutic - Quadramet®)

Headquarters

- N. Billerica, Massachusetts

Offices

- Canada, Puerto Rico

Global Presence

- ~400+ employees worldwide

Commercial Products

- Nine

Development Pipeline

- Next-generation product candidates use Positron Emission Tomography (PET) and Magnetic Resonance Imaging (MRI)



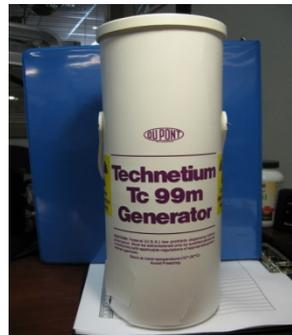
TechneLite® Generator History

- **^{99m}Tc - generator developed in Brookhaven National Labs in 1958 and commercialized in the mid 1960s**
- **^{99m}Tc generator manufactured by LMI and predecessors since 1967**
 - New England Nuclear (NEN) introduced Tc-99m Generator based on Mo-99 produced by neutron capture (^{98}Mo (n, γ) ^{99}Mo)
 - NDA for generator based on Mo-99 from fission of U-235 (^{235}U (n,f) ^{99}Mo) approved in 1975
- **TechneLite®, terminally sterilized generator introduced in 1993**
- **TechneLite®, CMS compliant LEU sourced Mo-99 introduced in 2013**

1967-1974



1974-1993



1993



2013



Lantheus Medical Imaging LEU Leadership

- **FIRST** – to receive FDA approval for LEU Mo-99 in North America:
 - ANSTO: May 2011
 - NTP: September 2010
- **FIRST** – to commercially sell a generator made with only LEU Mo-99 (December 2010)
- **FIRST** – to have LEU Mo-99 as a routine part of blended Tc-99m production (May 2011)
- **FIRST** – to commercially manufacture and regularly distribute CMS non-HEU (LEU) incremental add-on HOPPS payment compliant generators (since 1/7/2013)

Technelite LEU

Circling the globe... to bring Technelite® to you

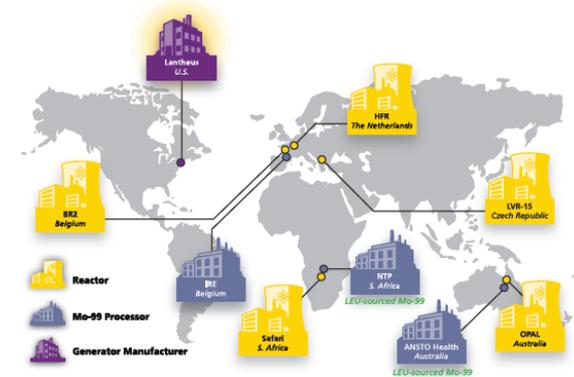


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Technelite®
Technetium Tc-99m
Generator

Focused on Your Future

- Globally diversified and balanced supply chain
- Supply agreements with IRE, NTP and ANSTO Mo-99 processors



Spearheading Low-Enriched Uranium (LEU)-sourced Mo-99 in the U.S.

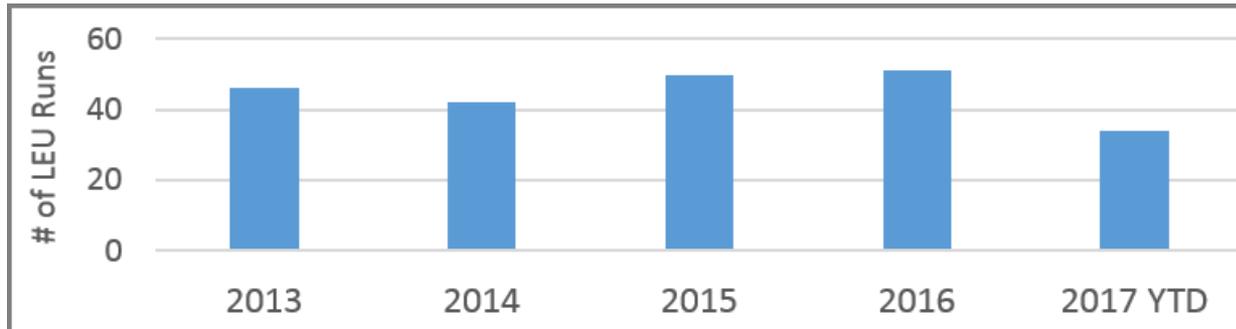
- Strategy in place for a consistent and increasing supply of LEU-sourced Mo-99
- First to gain FDA approval to use LEU-sourced Mo-99 in our Technelite® generator manufacture on June 25, 2009¹
- First to offer a Center for Medicare and Medicaid Services (CMS) compliant LEU manufactured technetium-99m generator (Technelite®) on January 7, 2013¹

Same Quality and Reliability¹

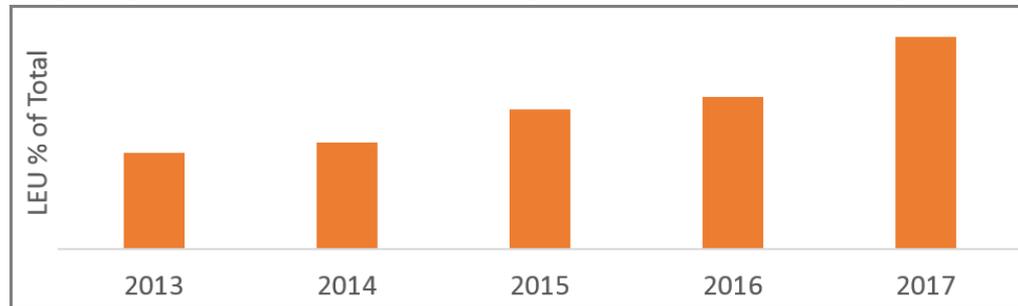
- LEU Technelite® generators are equivalent in the elution process and provide the consistent performance you value
- LEU Technelite® generators are available in our standard sizes

LEU Supply

- **Dedicated, weekly LEU TechneLite® generator runs 2013-17 (through 06-SEP-2017)**



- **LEU Mo-99 as proportion of total LMI purchased Mo-99 (2017 projected)**

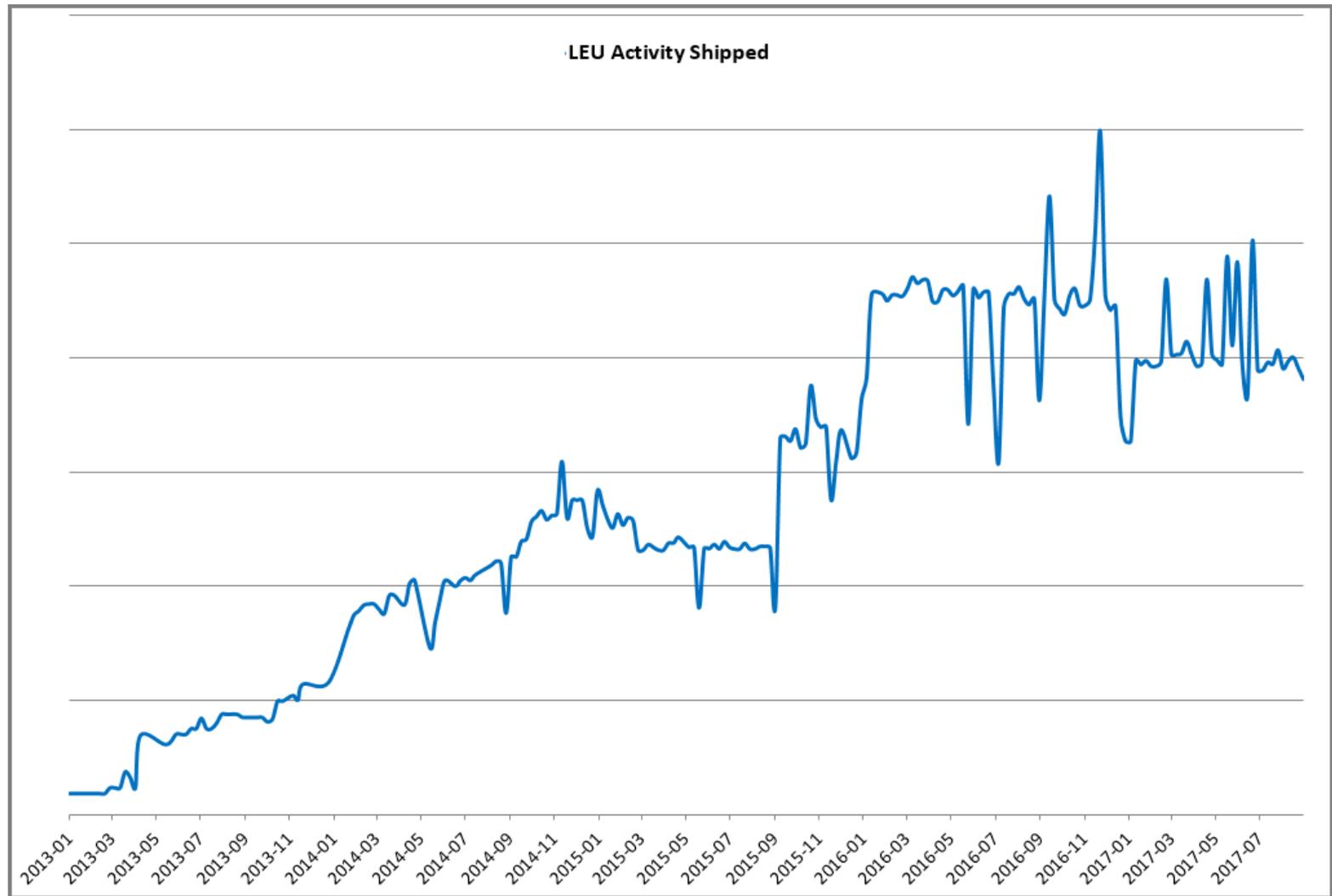


- **ANSTO capacity increase to 2250 Ci/week in place since August 2016**
- **ANSTO ANM project (3500 Ci/week) validation expected late 2017, early 2018**
- **IRE LEU conversion: validation runs planned early 2018**

Mo-99 Supply Planning Process

- **Mo-99 supply planning is a continuous process**
- **Intensive Communication**
- **Increased Focus on In-Bound Logistics**
- **Proactive Reactor Schedule Review/Monitoring**

LEU TechneLite[®] generators shipped activity



LEU TechneLite®

- **Lantheus continues to promote uptake of LEU generators**
 - increasing number of Private Payers are reimbursing use of LEU
- **Lantheus LEU Webinar:**
 - Provides a Nuclear Pharmacy’s 2-year experience
 - Implementation into pharmacy operation
 - Education of End Users in market
 - Delivery of LEU doses to End Users
 - Provides an End Users’ experience
 - Implementation into operation
 - Reimbursement process
- **UPPI “LEU Walk” continues**

Xe-133

- **Xe-133 used in U.S. for pulmonary imaging**
- **Lantheus announced new strategic agreement on January 21, 2015 with IRE for supply of Xe-133 gas**
- **IRE provides unprocessed radiochemical Xe-133 to Lantheus for processing and finishing**
- **FDA approval received on June 10, 2016**
- **First commercial shipment June 30, 2016**
- **IRE replaced NRU beginning in November 2016**
- **Additional diversification options being pursued**
- **LEU-based Xe-133 development advancing**

Conclusions

- **Lantheus has taken a leadership role in use of LEU Mo-99 in its TechneLite[®] generator supply chain**
- **LEU TechneLite[®] generators poised for significant increase in 2017 with projected all-LEU Mo-99 supply**
- **LEU key to enhanced global nuclear security and creates foundation for more secure, reliable future supply of Mo-99**
- **Anticipate full conversion to LEU in 2018**
- **Lantheus and IRE have secured Xenon-133 supply**

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Thank you

Questions?