

3<sup>rd</sup> Federal Workshop on Isotope Supply and Demand November 3, 2014

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## **Isotope Program Mission**

#### The mission of the DOE Isotope Program is threefold:

- Produce and/or distribute radioactive and stable isotopes that are in short supply, associated byproducts, surplus materials and related isotope services.
- Maintain the infrastructure required to produce and supply isotope products and related services.
- Conduct R&D on new and improved isotope production and processing techniques which can make available new isotopes for research and applications.

Produce isotopes that are in short supply only – we do not compete with industry



>225 customer orders in FY2013 >470 shipments in FY2013

FY 14 Enacted: \$19.4M FY 15 Request: \$19.9M



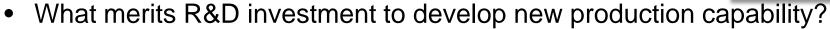
Brookhaven Linac Isotope Producer



### Isotopes for Federal Missions

#### DOE IP needs input from federal complex to make strategic plans

- What to produce for federal missions?
  - At university and laboratory facilities
  - At accelerators, reactors
  - What can we extract from legacy waste?
- What facility capabilities need to be developed?
  - Example: Enriched stable isotope production



- Example: Alpha-emitters for medical applications
- Risks in supply chains that could create constrained supply
  - Political situations: Dependencies on Russian supply
  - Unforeseen spikes in federal demand





## Office of

## 2<sup>nd</sup> Workshop on Isotope Federal Science Supply and Demand, September 19, 2013

#### 70 attendees 23 different federal institutions Over 200 isotopes identified

- Armed Research Institute
- **Defense Logistics Agency**
- **Defense Threat Reduction Agency**
- Department of Agriculture
- DOE/National Isotope Development Center
- DOE/National Nuclear Security Administration
- DOE/New Brunswick Laboratory
- DOE/Office of Fossil Energy-Oil and Natural Gas
- DOE/Office of Intelligence
- DOE/Office of Nuclear Energy
- DOE/Office of Science
- Department of Homeland Security
- Department of State
- Department of Transportation
- Federal Bureau of Investigation
- Food and Drug Administration
- National Aeronautics and Space Administration
- National Institutes of Health
- National Institute of Standards and Technology
- National Science Foundation
- National Security Staff
- Office of Science & Technology Policy
- Office of the Director of National Intelligence



Security







#### Communication

- Shortage of He-3 in 2008 caught federal complex by surprise
- Isotope Program moved to Office of Science in 2009
- We have been working to improve communication amongst federal agencies
  - To avoid shortages in isotopes that can impact federal missions
  - To increase availability of isotopes in short supply needed for federal missions
- Collected spreadsheets valuable input for developing strategies on isotope production, R&D investment, facility capability development
- Have followed through with each agency on their input
- Follow-ups for FY 2014 input this calendar year
- In addition, collect demand information for BLM on He-4



## Science

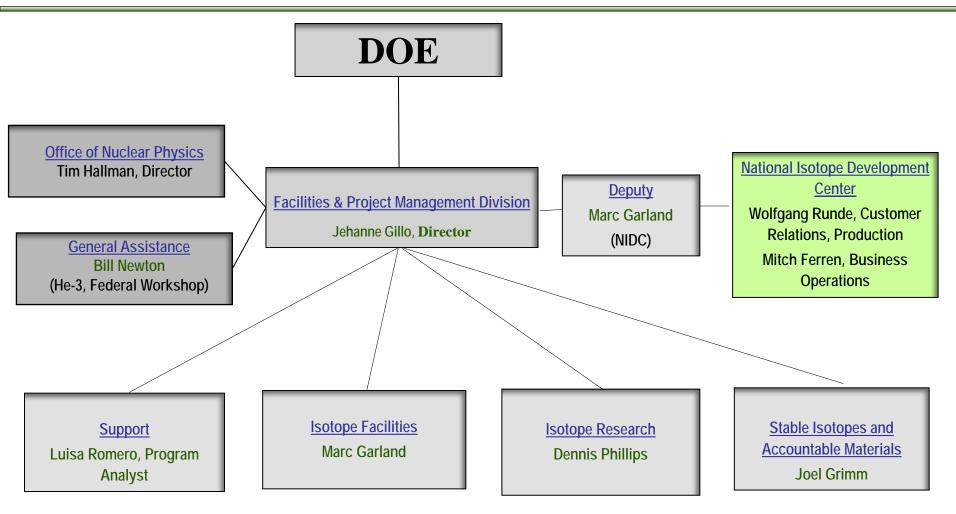
### Office of Created National Isotope Development Center

- The Department of Energy NIDC (includes the Isotope Business Office located at Oak Ridge National Laboratory) coordinates the distribution of all DOE isotope products and services available from DOÉ facilities.
- All contractual discussions with customers.
- Responsibilities in transportation, Q&A, public relations (website, newsletter, booth), cross-cutting technical topics, marketing strategy and assessments.
- Customers maintain technical discussions with sites.
- www.isotopes.gov





# DOE Isotope Program Organization







- These meetings are venues to bring to your attention changes in isotope supply and demand that could be important to your agency mission
- As a representative of your agency, we rely on you to transmit any relevant information from this meeting back to your agency
- Thank you for your attendance!
- Thank you for the agency demand spreadsheet!
- We will be following up this calendar year to discuss your demand spreadsheet