



# 2013 Mo-99 Topical Meeting

Chicago, IL USA      April 1-4, 2013

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- Windy City

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- Beirut by the Lake – *WSJ*



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Writing with far more flair in his poem *Chicago*, Carl Sandburg dubbed it “hog butcher for the world, tool maker, stacker of wheat, player with railroads ... and city of broad shoulders,” pointing to Chicago’s Diversity of Trades and Get Things Done Attitude.



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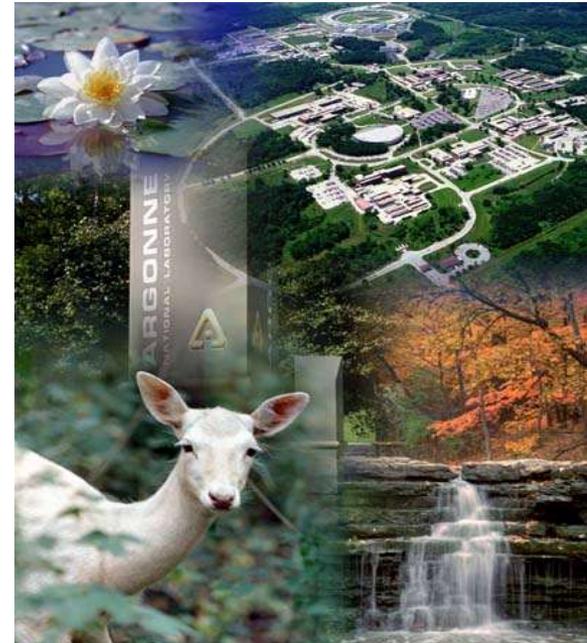
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This “Get Things Done Attitude” was no better realized than by The University of Chicago’s role in the Manhattan Project.



# Argonne National Laboratory: Background

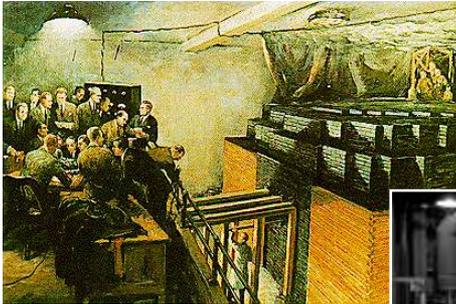
- Founded in 1943 by the University of Chicago
- Designated a National Laboratory in 1946
- Operated now by UChicago Argonne LLC
  - ~3400 employees, >4400 facility users
  - >\$738M FY10 BA
  - 1500 acre site
- Pioneer of most civil nuclear technologies
- Builds and operates major national user facilities
- Multi-program/multi-disciplinary research
- Oversight: DOE–SC



## Research Sponsors

- DOE (including SC, NE, EERE, NNSA)
- Other Federal Agencies (NRC, DHS, DOD, DOT, NIH, etc.)
- State of Illinois
- Private Sector

# Argonne pioneered the development of nuclear power



- Seminal work on reactors and fuel recycle technologies
- Argonne continues to advance the science & technology foundations for nuclear energy
  - **Research involves several Argonne divisions (NE, CSE, MCS, MSD, EVS, ...)**
- Nuclear energy expertise also applied to enhance National Security through nuclear non-proliferation activities



# GTRI-Conversion Program



## Program Objective

The Global Threat Reduction Initiative (GTRI) Conversion Program supports the conversion of domestic and international civilian research reactors and isotope production facilities from HEU to LEU, which includes working with Mo-99 producers to convert their operations to using LEU targets.

## Main Technical Elements

**Reactor Conversion:** Performance of *Conversion Analysis* and high-density LEU *Fuel Development* activities to convert domestic and international research reactors to operation with LEU fuels.

**Mo-99 Production Technology Development:** Development of non-HEU processes for the production of Mo-99 and extensive collaboration with domestic and international partners:

- Support domestic production establishment with non-HEU technologies, and
- Support international conversion to LEU technologies.



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On behalf of the meeting organizers and Argonne National Laboratory ...

- Welcome to Chicago, and I encourage you to enjoy its architecture, restaurants, sights and museums.
- The Meeting's presentations promise to highlight much progress towards the GTRI Mo-99 Program goals.
- For those planning to visit Argonne on Friday, I wish you a very satisfying and informative tour.

