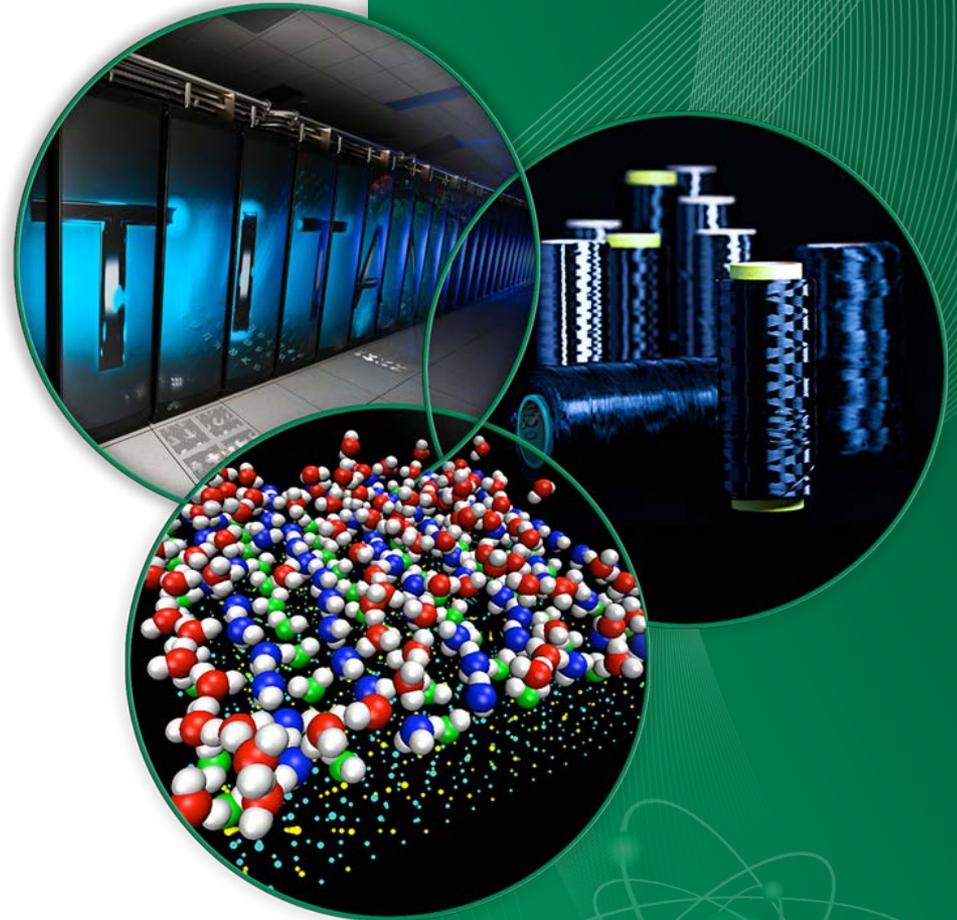


Oak Ridge National Laboratory Emergency Management Program and Laboratory Update

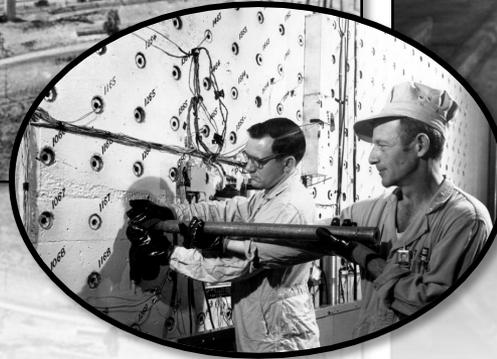
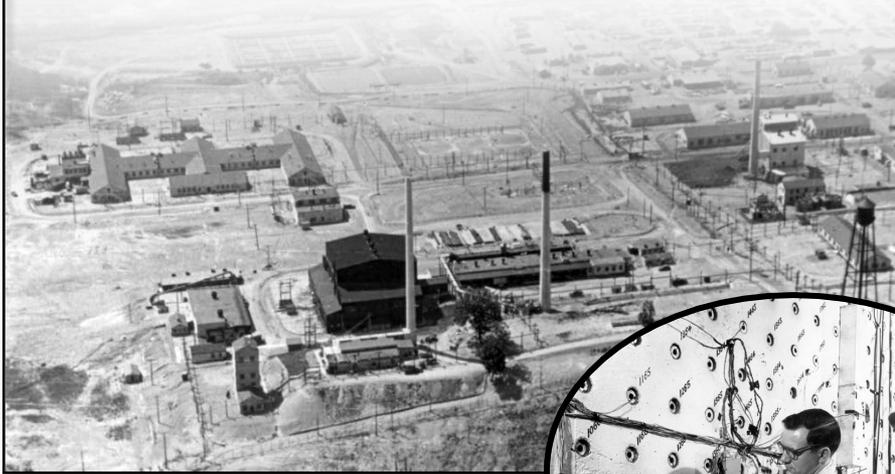
Michele Wolfgram
Emergency Management Team
Oak Ridge National Laboratory

Oak Ridge Emergency
Management Forum
September 26, 2013



Oak Ridge National Laboratory evolved from the Manhattan Project

The Clinton Pile was the world's first continuously operated nuclear reactor



Chemical processing techniques were developed to separate plutonium from irradiated fuel



LIFE
FILE

Today, ORNL is DOE's largest science and energy laboratory

\$1.65B
budget

4,400
employees

3,000
research
guests
annually

\$500M
modernization
investment

Nation's
largest
materials
research
portfolio

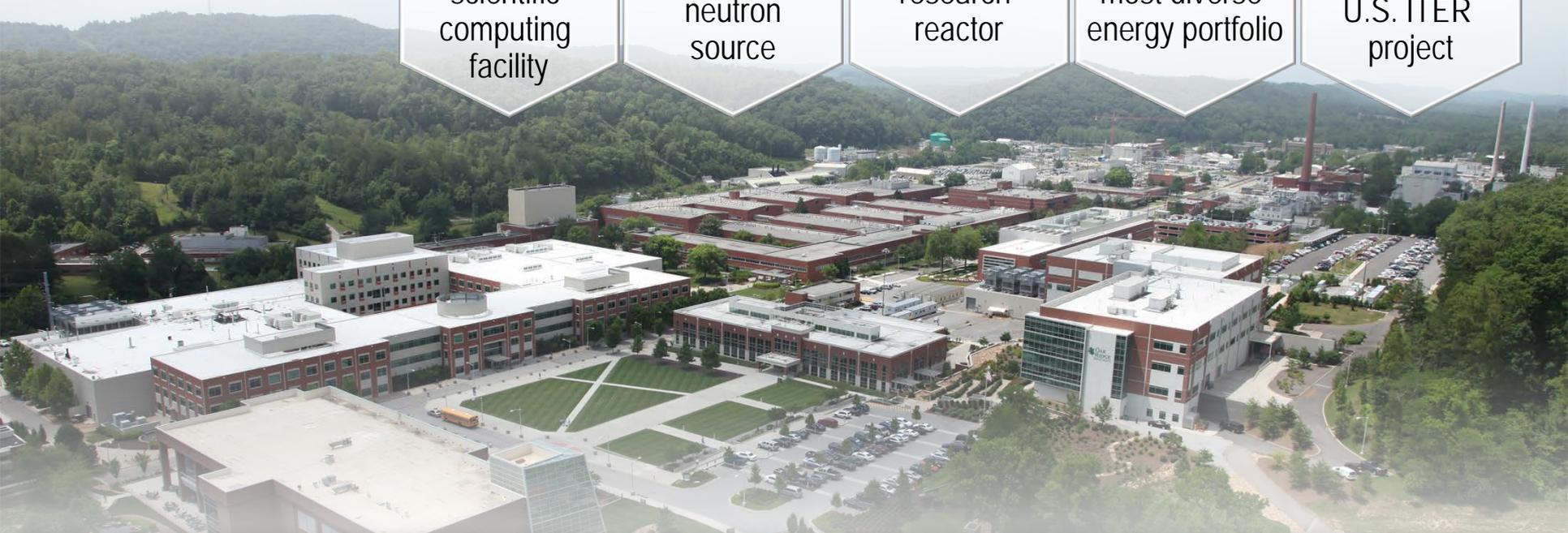
Most
powerful open
scientific
computing
facility

World's
most intense
neutron
source

World-class
research
reactor

Nation's
most diverse
energy portfolio

Managing
billion-dollar
U.S. ITER
project



ORNL's mission

Deliver scientific discoveries and technical breakthroughs that will accelerate the development and deployment of solutions in clean energy and global security, and in doing so create economic opportunity for the nation

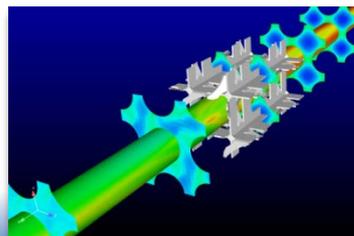
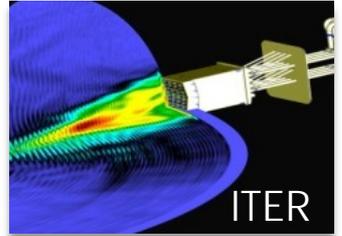
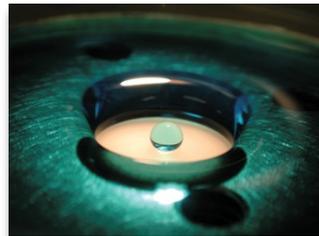
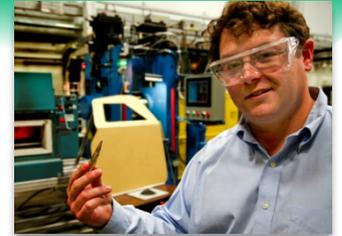
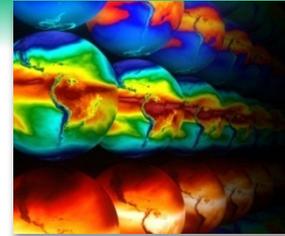


Integration of ORNL signature strengths supports DOE and other customers

Clean energy

Scientific discovery and innovation

Global security



Materials science and engineering

Nuclear science and technology

Computational science and engineering

Neutron science and technology

Enabling science and technology with 21st century research facilities

East Campus



Chestnut Ridge Campus



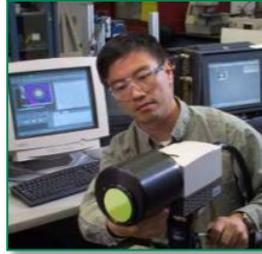
Science and Technology Park



West Campus



Distinctive user facilities bring thousands of researchers to ORNL each year



- Building Technologies Research and Integration Center
- Center for Nanophase Materials Sciences
- Center for Structural Molecular Biology
- High Flux Isotope Reactor
- High Temperature Materials Laboratory
- National Center for Computational Sciences
- National Transportation Research Center
- Shared Research Equipment Collaborative Research Center
- Spallation Neutron Source



ORNL Emergency Response

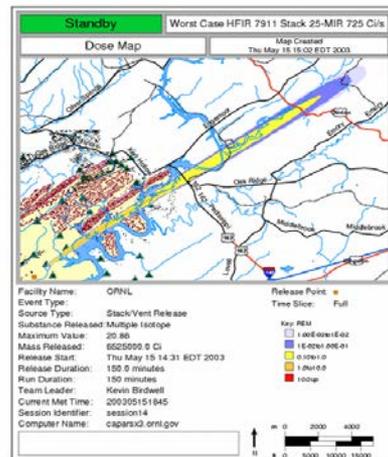
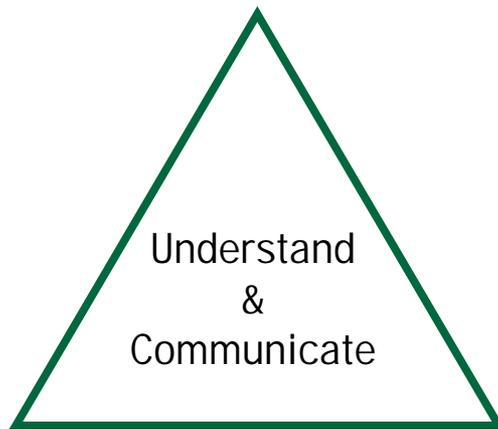
CORE OBJECTIVES



**PROTECT
THE PEOPLE**



**STABILIZE
THE EVENT**



**PREDICT THE
CONSEQUENCES**

STABILIZE ----- PROTECT ----- PREDICT

Technical Basis Update

- Hazardous materials onsite that may result in Operational Emergencies

Chemical	Radiological Materials
bis (2-ethylhexyl) phosphate	Activation products (Co-60, Fe-59, etc.)
Hydrogen fluoride	Fission products (Cs-137, Sr-90, etc.)
Sodium nitrate	Transuranics (Pu-239, Cm-244, etc.)
Thorium nitrate	Uranium (various isotopes)
Uranyl nitrate	Other radioactive materials (Ra-226, Th-232, etc.)
Nitric acid	
Lithium hydride	
Uranium hexafluoride	
Zinc bromide	

Response Assets

Event Scene Response



Fire Department



Protective Force



Emergency
Medical Services



HAZMAT Team

Laboratory Response



LSS/Lab
Emergency
Response Center



Emergency
Operations Center



Field Monitoring
Team



Media Center

Laboratory Shift Superintendent

- Responsibilities include
 - Categorization/classification of the event
 - Determination of protective actions and protective action recommendations
 - Notification of offsite organizations
 - Activation of the Emergency Response Organization (ERO)
 - Requests for mutual aid assistance



Mutual Aid Requests/Responses

- LSS will request assets in accordance with established procedure
 - Identify channel for radio communications
 - Provide information on nature of event
 - Notify agencies of site access issues and location of staging area
 - Make arrangements for escort if necessary
- When assets arrive at guard post
 - Will be provided with directions to staging area
 - Security escorts will be available as necessary

Significant Emergency Management Program Improvements

- Successfully conducted Full Scale Exercise to test response to large-scale severe events
 - Seismic event with two separate quakes
 - Two facilities with hazardous materials release
 - Damage to multiple facilities across the Laboratory
- Successfully conducted active shooter drill including field response and facility evacuation
 - Campaign will begin next fiscal year to enhance education and awareness of Laboratory population for response to active shooter events
- Coordinating Laboratory effort to prepare infrastructure for response to catastrophic events
 - Identifying critical infrastructure and priority levels for restoring services
 - Developing plans and procedures to sustain critical resources

Oak Ridge National Laboratory: Meeting the challenges of the 21st century

