



## Radiological and Nuclear Safety Services

ORAU provides government agencies, nuclear power producers and medical facilities with comprehensive support to safely manage radiological and nuclear challenges. With more than 60 years of experience and collaboration with the U.S. Department of Energy, ORAU's emergency management specialists, physicians, health physicists, certified trainers and crisis communication professionals provide integrated radiological and nuclear expertise.

## What We Do

- Exercise Design and Support
- Emergency Response Operational and Medical Support
- Medical and Health Physics Training
- Environmental Assessments
- Public Health Communication and Training
- Policy Development and Implementation Support

**O R I S E**

**OAK RIDGE INSTITUTE FOR SCIENCE AND EDUCATION**

Managed by ORAU for the U.S. Department of Energy



## Exercise Design and Support

ORAU provides complete exercise support as well as technology applications to help organizations prepare to successfully manage radiation emergencies. Working with agencies such as the National Nuclear Security Administration, the U.S. Department of Homeland Security and U.S. Department of State, we have unique experience in conducting multi-agency response scenarios.

Our expertise includes:

- Full-scale exercises
- Drills and no-notice exercises
- Tabletop exercises
- Classroom training
- Exercise Builder software for developing exercise plans, setting drill objectives and reporting

## Emergency Response Operational and Medical Support

ORAU deploys alongside our federal partners to manage radiological incidents worldwide, including the 2011 nuclear reactor crisis in Japan. Our team includes veterans of law enforcement and special operations trained to respond in hostile environments, scientists specialized in minimizing contamination and medical professionals trained to treat radiation-related injuries.

ORAU manages the Radiation Emergency Assistance Center/ Training Site where physicians, nurses and health physicists are on call 24/7 to provide consultation or deploy worldwide to treat victims of radiation exposure. REAC/TS' Cytogenetic Biodosimetry Laboratory is one of only a few labs worldwide able to assess the dose to individuals exposed to high levels of radiation.

## Environmental Assessments

With more than 30 years of site survey experience, ORAU has verified the cleanup at more than 500 sites in 42 states. We are the primary independent verification contractor for all DOE cleanup projects and the only verification contractor for the U.S. Nuclear Regulatory Commission. Our health physics support includes:

- Environmental monitoring and modeling
- Nondestructive assay verification
- Instrumentation assessments
- Clearance of contaminated materials
- Waste characterization
- Radiochemical analysis
- Off-site dose assessment
- License and program review



## Medical and Health Physics Training

Taught by internationally recognized experts, ORAU's specialized courses combine classroom and hands-on learning in our laboratory-based training facilities. Visit our website for course details or talk to us about customized training at your location.

### **REAC/TS accredited radiation emergency medical training includes:**

- Pre-Hospital Radiation Emergency Preparedness
- Radiation Emergency Medicine
- Health Physics in Radiation Emergencies

### **Health physics and radiation safety training includes:**

- Introduction to Radiation Safety
- Applied Health Physics
- MARSAME (materials and equipment surveys)
- MARSSIM (surveys and site investigations)
- Air Sampling for Radiation Safety
- Gamma Spectroscopy

## Public Health Communication and Training

In the event of a radiological incident, communicating with the public and the media is critical to provide accurate information and ensure public safety. ORAU specializes in communication related to health and safety issues, and we work with you to:

- Develop training simulations for health professionals
- Prepare educational toolkits and conferences for health care professionals
- Train spokespersons to clearly communicate complex radiological information
- Leverage social media for crisis communication

## Policy Development and Implementation Support

ORAU works closely with federal and state agencies to assist in developing and implementing policies that help keep citizens safe in the event of radiological or nuclear threats. We have helped many federal agencies implement the Homeland Security Exercise and Evaluation Program and the National Incident Management System, and ORAU assists in the execution of the National Response Framework and the Radiological and Nuclear Incident Annex. We integrate policy support with exercise development and outreach efforts to provide our clients with a comprehensive, integrated assistance system for addressing a wide range of radiological and nuclear issues.



## Radiation Safety Highlights

### Nuclear Smuggling Prevention

ORAU works with the U.S. Department of State's Preventing Nuclear Smuggling Program to deliver international workshops on the technical, political and law enforcement aspects of nuclear smuggling. These sessions are helping countries strengthen their capabilities to apprehend and prosecute smugglers.

### Golden Guardian Exercise Series

As lead planner since 2004, we partner with the California Emergency Management Agency to execute an annual, full-scale exercise, known as Golden Guardian, to test the state's ability to respond to various threats, including terrorist actions and radiological threats. Exercises include numerous agencies and thousands of responders.

### Radiological Terrorism Medical Response Training

With the CDC Radiation Studies Branch, we educated more than 25,000 health and medical personnel on radiological terrorism response through several products, including: clinician and public health toolkits, population monitoring guidance, psychological first aid training and a virtual community reception center online tutorial.



## Working with ORAU

We have a variety of contract vehicles in place to make it easy to work with us, including GSA schedules and the DOE ORISE Work for Others program. Visit [www.orau.org/contracts](http://www.orau.org/contracts) for details.

## Key Customers

- California Emergency Management Agency
- Centers for Disease Control and Prevention
- Domestic Nuclear Detection Office
- Federal Emergency Management Agency
- Nuclear Regulatory Commission
- U.S. Department of Energy
- U.S. Department of Homeland Security
- U.S. Department of State



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RADIATION EMERGENCY ASSISTANCE CENTER/TRAINING SITE

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