Radiological Response TRAINING WORKSHOP

CBRNE SCIENCE AND CONSEQUENCE MANAGEMENT WORLD CONGRESS CONFERENCE

uclear and radiological materials and weapons pose a significant threat to people around the world. As governments work broadly to resolve proliferation concerns, recent industrial accidents and international events have heightened the awareness for robust radiological incident response training.

During the 2023 CBRNe (Chemical, Biological, Radiological, Nuclear and High-Yield Explosives) Science and Consequence Management World Congress Conference, technical nuclear nonproliferation experts from the United States will host a three-day, hands-on training event. Through classroom and field exercises, the event will enhance the knowledge and skills of participants to effectively identify, assess and mitigate radiological contamination risks while protecting the public and the environment.

Training will be led by a team of U.S. experts from the Department of Energy's (DOE) National Nuclear Security Administration (NNSA) Office of Counterterrorism and Counterproliferation, the DOE's Idaho National Laboratory, and elements of the Department of Defense, including service members from allied nations. This will be a limited-access, controlled training conducted in a safe and secure manner. Participants will practice decontamination techniques, radiation monitoring and response procedures through a series of realistic scenarios.

Idaho National Laboratory

As one of 17 national labs in the U.S. Department of Energy complex, Idaho National Laboratory is home to more than 5,700 researchers and support staff members focused on innovations in nuclear research, renewable energy systems and security solutions. For two decades, the laboratory has used its technical expertise, isolated landscape, and inventory of special nuclear materials to support immersive training exercises focused on radiological hazards, nuclear nonproliferation and emergency response. Since 2003, INL has provided training to more than 10,000 first responders, law enforcement members and military personnel.

INL's on-site training ranges are located within the laboratory's 890-square-mile desert Site (nearly the size of Luxembourg). At approximately 100 acres each, two dedicated ranges provide secure, isolated locations to train personnel, test aerial and ground-based sensors, and develop detection capabilities with radioactive materials under controlled conditions. Range training can last for several days and be scaled to accommodate any size group. Course materials can also be tailored to responder needs to search, interact with and render safe a radiological dispersal device or other potentially dangerous materials. Field exercises can involve the strategic placement of sealed radioactive sources, special form-sealed radioactive sources and contained radioactive sources.

Responders use specialized equipment to characterize the radiation fields or areas, obtain radiation readings, train with disablement tools, and collect samples in the test area. The laboratory can also provide contamination characterization and decontamination training.

When requested, INL experts provide training sources, specialized equipment, source handlers and radiation control technicians to support training exercises at locations off-site from INL property.

Although every training exercise is unique and based on the needs of emergency responders, a typical event often involves:

- Checking background radiation and verifying initial conditions.
- Placing sealed radioactive sources followed by equipment surveys and search techniques.
- Learning how to accurately take measurements, mitigate hazardous materials, and recover and restore the area following a suspected event.
- Learning how to interact with the public while conducting surveys and performing search and localization activities.
- Coordinating and communicating with other responders including local law enforcement, public health, emergency medical personnel, and other first responder organizations.



2023 CSCM Training Outline

he workshop provides a three-day training event at the CBRNe Science and Consequence Management (CSCM) World Congress to invited participants who require radiological response training specific to a large area contamination event. The event will be held in Cavtat, Croatia, Oct. 22-24.

Our goal is to provide comprehensive and practical training to emergency responders, government officials and stakeholders in managing radiological contamination incidents. Through a joint training event, we aim to enhance participants' knowledge and skills in identifying, assessing and mitigating radiological contamination risks. We aim to equip participants with the knowledge and confidence to respond effectively to radiological contamination incidents and to protect the environment, public and themselves. Together, we strive to build a resilient and prepared response community that can effectively respond to radiological incidents and protect the health and safety of all.

We are committed to providing a safe and controlled training environment, where participants can practice decontamination techniques, radiation monitoring and response procedures.

Upon successful completion of the training workshop participants will be awarded a training certificate from the Idaho National Laboratory.

For additional information contact: LTC Jeffrey D. Allen, USA Retired CSCM Executive Director cbrne155@gmail.com



Day One: Oct. 22

Emergency Response Planning

Radiation Physics

Contamination

Decontamination

Decontamination Demonstration



Day Two: Oct. 23

Emergency Response and Contaminated Casualty Transportation

Search and Localization Techniques for Radiological Sources

Contamination Characterization and Measurement



Day Three: Oct. 24

IAEA Emergency Preparedness and Response Toolkit

Contaminated Casualty Decontamination and Transport Practical

Search and Localize, Contamination Characterization and Measurement Practical







23-50407



Idaho National Laboratory

Civil Protection Polygon, Dubrovnik Area

New Technologies for Critical Infrastructure Protection against CBRNe and TIM Threats

CSCM - WORLD CONGRESS ON CBRNE SCIENCE & CONSEQUENCE MANAGEMENT

atural, technological, and man-made accidents and the consequences of their influence, terrorism, the choice of industries, warehouses, transport systems, communication, IT, and other elements of critical infrastructure and facilities of special importance for security and defense as military and terrorist targets, as well as the existence of CBRNe weapons themselves, are the source of potential modern threats with extreme environmental consequences in which the action of the First Responder community with human teams and crews is limited in time and space, even to the point of being impossible to solve without endangering human life.

As one of many answers for the protection of critical infrastructure and objects of high value to a country, city, and community is the ability to respond in extreme conditions, unmanned, multifunctional systems have been developed, which, through a combination of remote control and autonomous functions, are capable of removing obstacles and dangerous objects in the path of intervention, carry out the tasks of operational and medical survey tasks, reconnaissance, and monitoring, take gaseous, aerosol, liquid and solid samples and

perform forensic evidence collection, carry out CBRNe decontamination operations of surfaces, remove of destroy objects of combat and non-combat equipment, mines and equipment, and neutralize TICs/TIMs chemicals, carry out firefighting operations, and provide self-decontamination and decontamination of first responders.

The actions above, independently or networked with unmanned air and ground platforms, are monitored. information and data collected and recorded by an expanded selection of diverse detectors, sensors, cameras, and devices connected with functional and analytical software. The data is delivered in real-time to the tactical operations center where it is processed, analysed, and converted into information and providing situational awareness for the needs of first responders, commanders at the scene of the incident, and decision makers at the highest level of governments. The result is a timely and informed response to mitigate the threat, save lives, material assets, and protect the environment from further damage.

Within RescEU capacities, the Civil Protection Directorate of the Ministry of the Interior of the Republic of

Croatia, in cooperation with the private sector, is in the process of developing comprehensive robotic platforms for CBRNe and industrial (TIC/TIM) decontamination of critical infrastructure, vehicles, and facilities, as well as critical evidence collection in all three scenarios: intentional and unintentional incidents and CBRNe threats during mass gatherings. It will be the first such unit in the EU that will remove people from extreme CBRNe situations and give remotely controlled systems an opportunity to prove the value of keeping responders from dangerous situations that could prove deadly to the first responder community.

The workshop is organized by the Civil Protection Directorate of the Ministry of the Interior of the Republic of Croatia and the International Organizational and Scientific Committee of the CSCM series of Congresses with the aim of exchanging knowledge and experience with the academic community and partnering with companies that develop new solutions, new systems, devices, detectors, sensors and equipment for defense against CBRNe threats and ultimately protecting lives and critical infrastructure.

2023 DAY ONE OCT. 22

Workshop topics are:

- · Modern CBRNe threats and dangers
- Critical infrastructure as a target of CBRNe and (TIC/TIM) threats
- Doctrinal CBRNe defenses: gaps in defense against modern CBRNe and (TIC/TIM) threats
- Doctrinal, strategic, and conceptual prerequisites for the use of new technologies in defense against modern CBRNe threats
- New technologies in CBRNe and (TIC/TIM) detection, identification, insight into the condition, reconnaissance, sampling, and monitoring
- New technologies in CBRNe and (TIC/ TIM) decontamination (wet/and dry decontamination)
- New technologies in eliminating CBRNe and RDD/IED/EOD threats
- New technologies in the protection of people, critical infrastructure, and the environment from CBRNe threats
- · New technologies in creating situational awareness



The objective of field live exercise:

- Using the exercise scenario, create prerequisites for demonstrating the possibilities of new technologies in defence against CBRNe threats
- Demonstrate new technologies in the fight against CBRNe terrorism and the cross-border spread of CBRNe technologies
- Showcase the possibilities and capabilities of new technologies in creating situational awareness by insight into the situation, CBRNe, and (TIC/TIM) detection, identification, reconnaissance, sampling, and monitoring
- Showcase the possibilities and capabilities of new technologies in CBRNe and (TIC/TIM) decontamination and mitigation of CBRNe RDD/ IED/EOD threats
- Showcase the possibilities of defense and protection of people, critical infrastructure, and the environment against CBRNe and (TIC/ TIM) threats
- Demonstrate remote control capabilities with modern technologies for defense and protection against CBRNe threats



We invite the academic community, industry, military, police, firefighting, and civil protection professionals to join us in organizing and conducting the workshop and exercise. All proposals, suggestions, and ideas for workshop topics and scenarios for live field demonstration of new technologies will be gladly accepted.

If you would like more information don't hesitate to contact LTC (r) Jeffrey Allen, Congress Executive Director, mail: cbrne155@gmail.com, and Prof. Zvonko Orehovec, COL (r), Congress National Chair, mail: zvonko.orehovec@gmail.com











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Organized by:

CSCM Education Foundation
Government of Croatia
CSCM International Organizing Committee
Osdife

Hotel Croatia, Cavtat, October 22-26, 2023