ORS
Office of Radiological Security
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Update on best practices in Alarm Response Training

Presented by: Steven Hill

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Update on best practices in Alarm Response Training

- **Overview and Background**

  - The mission of the Office of Radiological Security (ORS) Program is to reduce and protect vulnerable nuclear and radiological material located at civilian sites worldwide. ORS supports the U.S. Department of Energy's (DOE) nuclear security goal by preventing terrorists from acquiring nuclear and radiological materials that could be used as weapons of mass destruction (WMD) or other acts of terrorism

  - ORS's Nuclear and Radiological Material Protection Program protects at-risk WMD-usable nuclear and radiological materials worldwide from theft and sabotage until a more permanent threat reduction solution can be implemented. These efforts result in threat containment because WMD-usable materials are protected from theft

- **Overview and Background - Continued**

  - In support of ORS's Nuclear and Radiological Material Protection Program, the DOE National Laboratories have developed various response force training courses that are training responders around the world

  - These course provide relevant response-related training for radiological events and provides an opportunity for training participants to develop, discuss, and exercise their tactics, techniques, procedures, and protocols when responding to a theft and/or sabotage event involving high-activity radiological sources and/or nuclear materials

  - Best Practice is defined as a method or technique that has consistently shown results superior to those achieved with other means

Physical Protection Strategy

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DETECT

Prompt Detection and Reliable Notification

DELAY

Extended Adversary Task Time

RESPOND

Timely, Aware, Equipped, and **Trained** Response

ORS CONTAINMENT STRATEGY

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- **Purpose of Alarm Response Training**
  - Alarm response training courses and workshops were developed for an international audience and is intended for facility management, on-site radiation safety and security personnel, local fire and law enforcement officers and other personnel
  - Planning for a theft/sabotage event and then training to the plan provides responders with familiarity and confidence when responding to a crisis
  - The goals of these courses are to develop sustainability at the local level for improved site security and response

Previous Courses and Workshops

- Procedure Development
- Radiological Security Incident Response Training
- Critical Incident Management
- Target Folder
- Site Response Plan
- Table Top Exercise
- Performance Testing
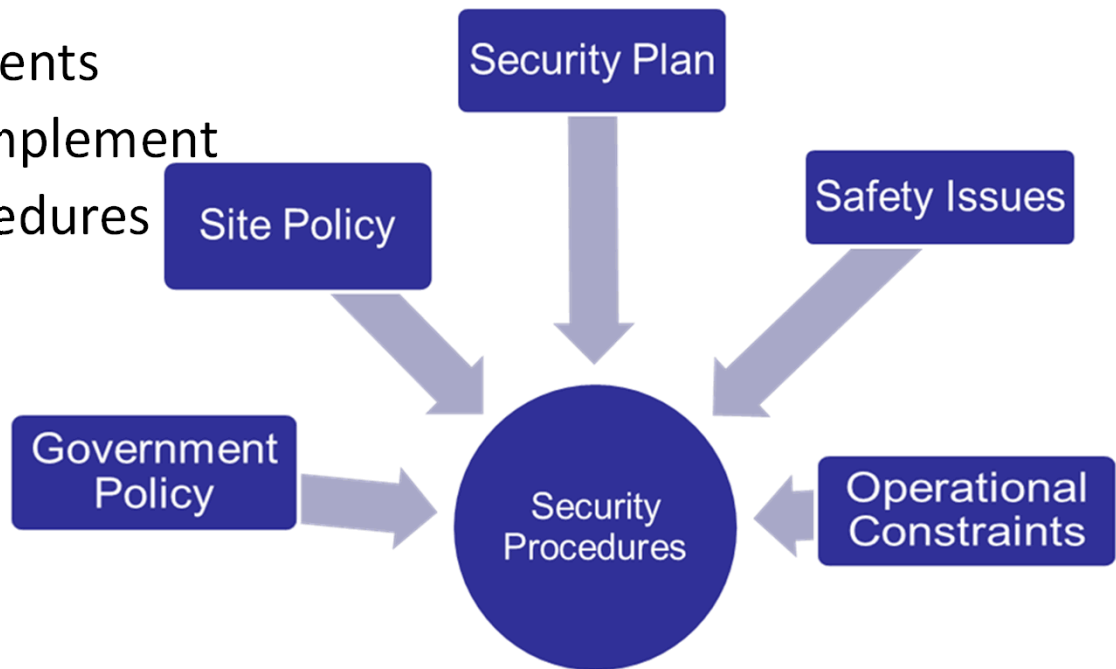- Physical Protection and Security Management
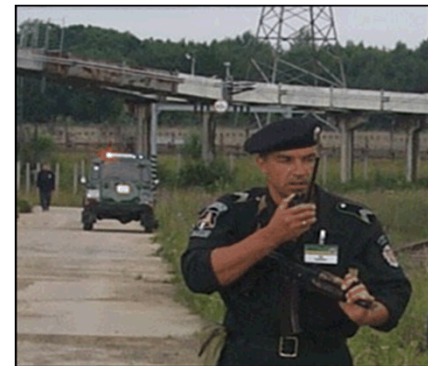
EXERCISE PARAMETERS

Procedure Development

- This course applies the fundamental knowledge and skills needed to develop effective security procedures. The course gives the participants the ability to:
    - understand why procedures are needed
    - identify when security procedures are needed
    - identify what elements are necessary to implement and maintain procedures

Radiological Security Incident Response Training

- This course provides an overview of radiological security incident response, specifically for site staff, security personnel, and law enforcement officials. Topics include:
  - Defining the Threat
  - Physical Protection Principles
  - Basics of Radiation Awareness
  - Radioactive Sources, Locations, and Awareness for Law Enforcement
  - Effective Use of Radiation Detection Equipment
  - Incident Response—First Responder Duties and Actions
  - Site Visit/Site Survey/Target Folder Development
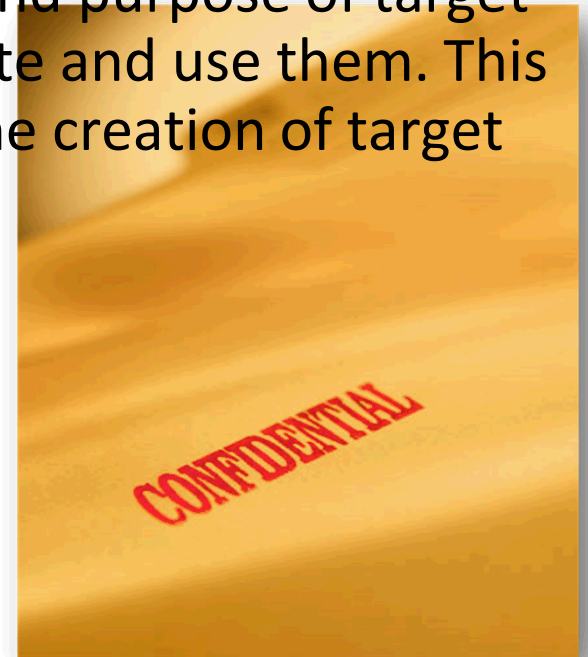 - Response Assessment Exercise

Critical Incident Management

- This is an introductory course for first responders to all types of life threatening situations during a security response to radiological or nuclear assets. It has been used in the US to train thousands of first responder over the past 20 years and is the first step necessary in the response to all critical incidents. Topics include:
    - Incident Characteristics
    - Incident Phases
    - First Responder Role
    - Leadership
    - Seven Critical Tasks

Target Folder Development

- The target folder is a collection of data related to a facility which contain radiological target related materials. It is prepared for planning or executing action against a specific attack, prepared so responders can utilize it as a reference to assist them in making timely and effective decisions during the beginning phase of a critical incident

- This course presents the importance and purpose of target folders and demonstrates how to create and use them. This is an in-depth course which leads to the creation of target folders for the facility
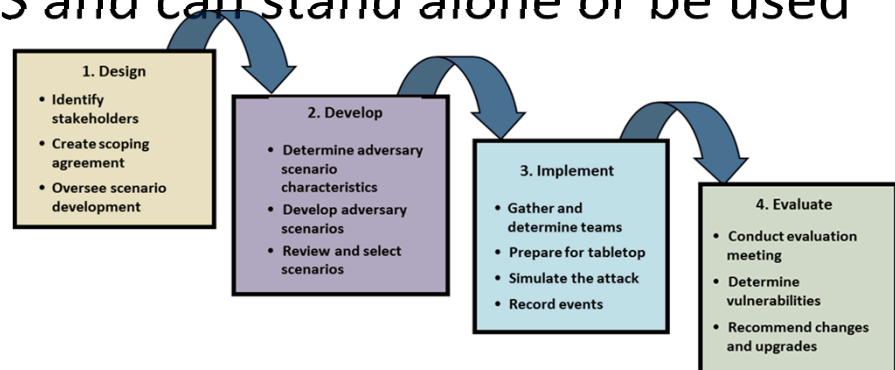
Site Response Plan Development

- This workshop provides training for the building of a security response plan (SRP) for the facility
  - The SRP is a document that details the specific manner in which a response force will respond to a target and the protection strategy assigned to that target
  - Based upon IAEA Recommendations

- The SRP provides action plan during emergency security events

- Fulfills requirements
  - State Regulations
  - Local Regulations
  - Facility Regulations
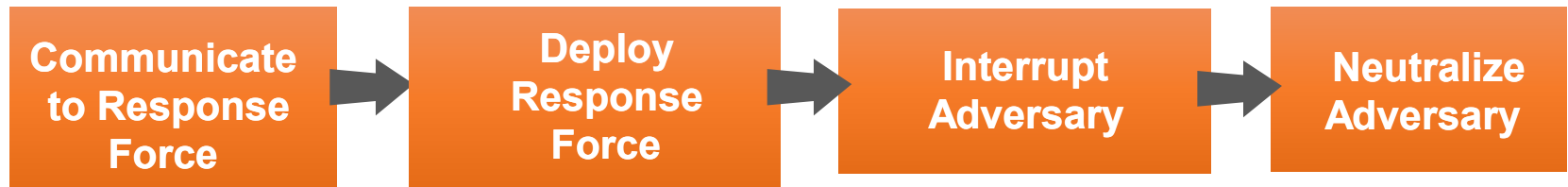
- Establishes stakeholder buy-in

Table Top Exercise/Response Assessment Exercise (TTX)

- This scenario based exercise tool is an analysis tool used to conduct rapid, high level assessments of physical protection systems (PPS)

- The TTX is a cost effective and scalable approach to the development, enhancement, testing, evaluation, and optimization of many aspects of a physical security system

- The exercises provide valuable insight into the effectiveness of site PPS, response plans, interagency coordination, policies, and procedures. Helps determine the most appropriate PPS upgrades

- Provides insight into a PPS and can stand alone or be used with other analysis tools

1. Design
- Identify stakeholders
- Create scoping agreement
- Oversee scenario development

2. Develop
- Determine adversary scenario characteristics
- Develop adversary scenarios
- Review and select scenarios

3. Implement
- Gather and determine teams
- Prepare for tabletop
- Simulate the attack
- Record events

4. Evaluate
- Conduct evaluation meeting
- Determine vulnerabilities
- Recommend changes and upgrades

Performance Testing Workshop

- Gathering performance data by testing is one of the most valuable data collection method for evaluating the overall effectiveness of a physical security system.
- This workshop is designed to teach the participants how to gather performance data through various testing processes
  - Controller/Evaluator training
  - Time motion studies
  - Limited Scope Performance Tests
  - Alarm Response Assessment Performance Tests
  - Force on Force Exercises

Communicate to Response Force → **Deploy Response Force** → **Interrupt Adversary** → **Neutralize Adversary**
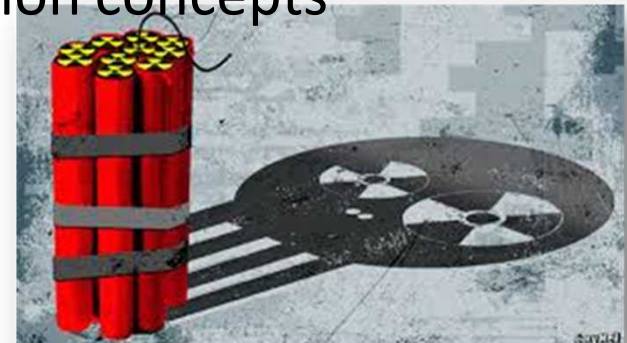
Physical Protection and Security Management Course (PPSM)

- The PPSM Training Course is designed to develop a basic understanding of physical protection and security principles in both representatives of the national regulatory authority and radiological/nuclear facility operators

- PPSM provides the impetus for engagement in regulatory development and socializes facility operators to the aims of ORS, facilitating success at both the national and site level

- Following initial delivery of the course, ORS works with the regulatory authority or national nuclear operating organization to adapt PPSM materials to meet country-specific circumstances and supports initial indigenous delivery of the course to additional national and site-level stakeholders

International Alarm Response Training (IRT)

- IRT is a training workshop for radioactive source licensees', national regulators, and first responders responsible for the protection of radioactive sources. The course is designed to assist countries in establishing an effective response capability in support of radiological security

- The workshop is designed to provide topical alarm response training, facilitated stakeholder discussions and collaborative response planning activities to enhance the respective site's response effectiveness and encourage ongoing sustainment activities amongst licensees and first responders

- Participants receive relevant first responder-level training on radioactive sources and radiation protection concepts

International Alarm Response Training (Continued)

- Through a combination of lectures and breakout sessions, the participants will draft site-specific contingency plans and first responder job-aids

- Through facilitated discussion, the IRT workshop instructors will assist the site's stakeholders in identifying any existing needs, gaps, and/or deficiencies in contingency plans, identify any misaligned expectations of stakeholders' roles during an alarm response

- In addition to the training and draft products developed, the IRT is designed to facilitate relationships between first responders, the regulators, and the site

- The IRT encourages stakeholder ownership in sustaining the relationships formed at the workshop along with continued collaboration activities that will ultimately maintain and enhance the alarm response capability at the respective sites

Successful Outcomes of Alarm Response Training Programs

- Observable changes in the security culture
  - Transfer of knowledge from training program to the security environment
  - Better responder morale based upon knowledge of the material and training in the safe response to potentially hazardous situations
- On and Off site coordination
  - Multi-agency meetings, coordinated security and safety training events
  - Memorandums of Understanding between stake holders
- Stronger support at local, state and federal levels
- The goals of these courses are to develop sustainability at the local level for improved site security and response.

Upcoming ORS training courses and workshops   2017-2021

- National Radiological Security Regulations Development Workshop
- National Response Plan Development Workshop
- Physical Protection/Security Management (PPSM) Course Training Program Developed and Transitioned
- National Radiological Security Regulations Submitted for Government Approval
- Security Inspections Training
- Site Security Plan Development Workshop
- Security Inspections Training Program Development Workshop
- International Response Force Training (IRT) Program Developed and Transitioned

Upcoming ORS training courses and workshops   2017-2021

- National Response Plan Table Top Exercise
- National Source Tracking System
- Site Security Plan Development Capability Transitioned
- Security Inspections Training Program Developed and Transitioned
- Transportation Security Workshop

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- If you other training ideas or recommendations, please contact….??????

- 15:45 – 17:00   Alarm Response, Response Training and IDD Lessons Learned – Facilitated Discussion

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Questions?