

INMM Workshop on Advanced Reactor Security

Offsite Response and Force-on-Force

Introduction:

- More than 20 years at operating U.S. commercial nuclear power plants
- Security officer, Response team leader, security management
- Participated in dozens of force-on-force exercises
- Engaged with local, state, and federal law enforcement to support site protection strategies
- Currently work at Sandia National Laboratory – New Mexico in the area International Nuclear Security

Current:

In general, nuclear power plants in the U.S. do not use offsite response as a primary means of physical protection against the threat of radiological sabotage because:

- Design basis threat and the relatively short adversary timelines
 - These timelines are typically measured in minutes
- Offsite response time is dependent on proximity to the site
 - Typical minimum response time could be 30 min or more

NRC regulatory Guide 5.75 Force on Force Exercise Key Program Elements:

FOF program is designed to determine the effectiveness of the physical protection strategy

- Respond with sufficient number of personnel
- Respond within appropriate timelines
- Respond to protected positions
- Respond with appropriate armament
- Provide target set protection

These are the minimum program elements that have to be met every time.

Timeline analysis:

When evaluating the viability of offsite response, the key is the Critical Point of Detection.

This is the point or location where the adversary must be detected in order for the response force to have enough time to interrupt the adversary.

For Example:

- The timeline from point of detection (protected area intrusion detection) to target set completion (sabotage) is 10 minutes
- Responders would have to arrive and be capable of engaging the adversary within those 10 minutes.

A nuclear power plant would have to establish sufficient delay after the point of detection to allow responders to interrupt the adversary prior to reaching the target location.

Delay can be in the form of distance, additional barriers, reinforcing existing barriers, and implementing other active delay features, if appropriate.

Other consideration for offsite res response:

Offsite responder considerations

- Proximity to site (response time)
- Travel pathways to the site
- Response force availability
- Site familiarity

Adversary tactics to delay offsite responders

- Blocking travel paths to site
- Distractions (SWAT being called to another event)
- Leave behinds onsite

In summary

Offsite response can be effective given:

- Unimpeded approach to the site, and
- No other responsibilities or duties, and
- Site familiarity or there is enough time to review site maps and layout, and
- There is sufficient delay between detection and target set completion