

# Argentina Regulatory Authority Tabletop Exercise

SAND2016-8393PE



OFFICE OF  
**NONPROLIFERATION AND  
ARMS CONTROL (NPAC)**

## Event Overview

Bruce Berry

Buenos Aires, Argentina

September 2016



**SAFEGUARD** NUCLEAR MATERIALS TO PREVENT THEIR DIVERSION OR THEFT



CONTROL THE SPREAD OF WMD-RELATED MATERIAL, EQUIPMENT AND TECHNOLOGY



NEGOTIATE, MONITOR AND **VERIFY** COMPLIANCE WITH INTERNATIONAL NONPROLIFERATION AND ARMS CONTROL TREATIES AND AGREEMENTS



DEVELOP PROGRAMS AND STRATEGIES TO ADDRESS EMERGING NONPROLIFERATION AND ARMS CONTROL THREATS AND CHALLENGES



Autoridad Reguladora  
Nuclear

Presidencia de la Nación Argentina



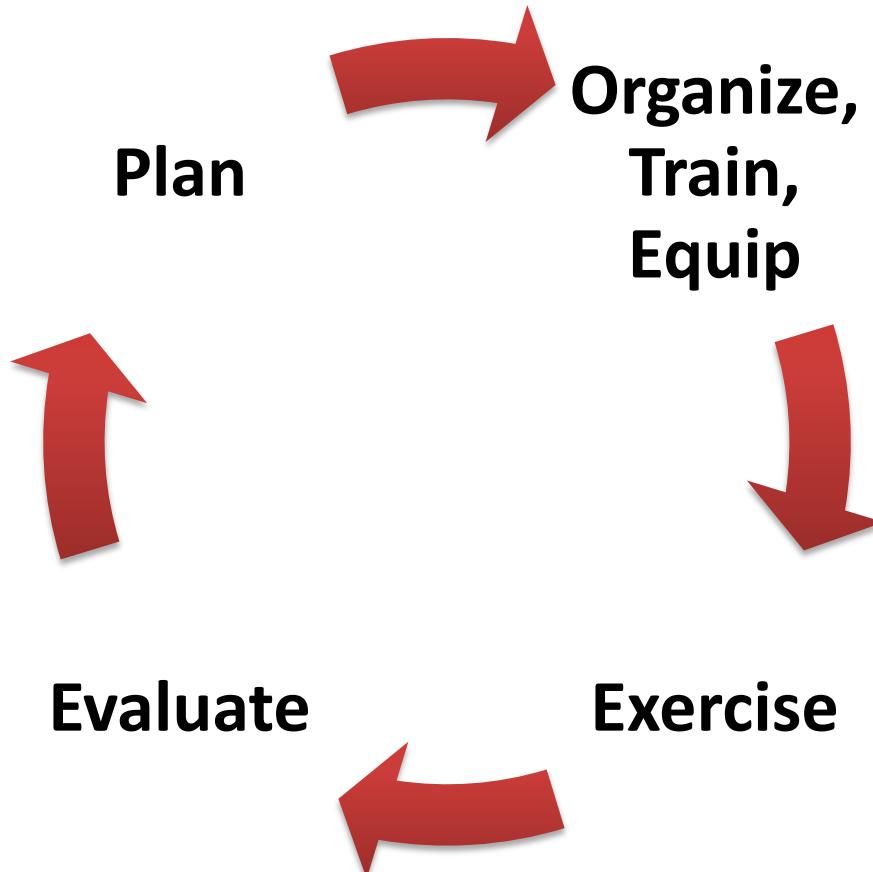
# Event Overview

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- Review Tabletop Exercise Methodology
- Review Materials



# Purpose & Limitations





# Why do we use exercises?

## Exercises simulate a “real-life” scenario

- Informal, safe, stress free environment
- Practice existing response plans & procedures
  - Use functional roles in a command structure
  - Exercise what would actually happen
- Review strengths & areas for improving response framework and command structure

# Tabletop Exercises

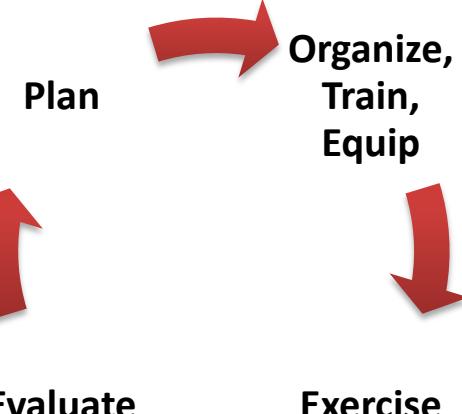


## One piece of a preparedness-program

- Plans are never finished
- Exercises help refine plans before a real event

## Part of multiyear engagement plan

- Based on capability & risk assessment
- Tests existing plans and procedures
- Each exercise is progressively more difficult
  - Example: simple tabletop to more complicated tabletop to modified full scale exercise to a full scale exercise





# Preparedness Activity Approach

## Building Block Approach



[Ref: HSEEP]



# Exercise Benefits

## Improve understanding of what would actually occur during a real emergency

- Informal, safe, stress free environment
- See how different roles, agencies interact during an emergency
  - Identify roles and responsibilities
  - Meet colleagues working in similar areas, facing same challenges
- Review plans, procedures, and policies

## Used in preparedness planning

- Identified roles, responsibilities can be put into formal plans
- Formal plans help agencies ensure a consistent, reliable response
- Prioritize resources acquisition & allocation



# Exercise Limitations

## Limitations in simulating real-life scenarios

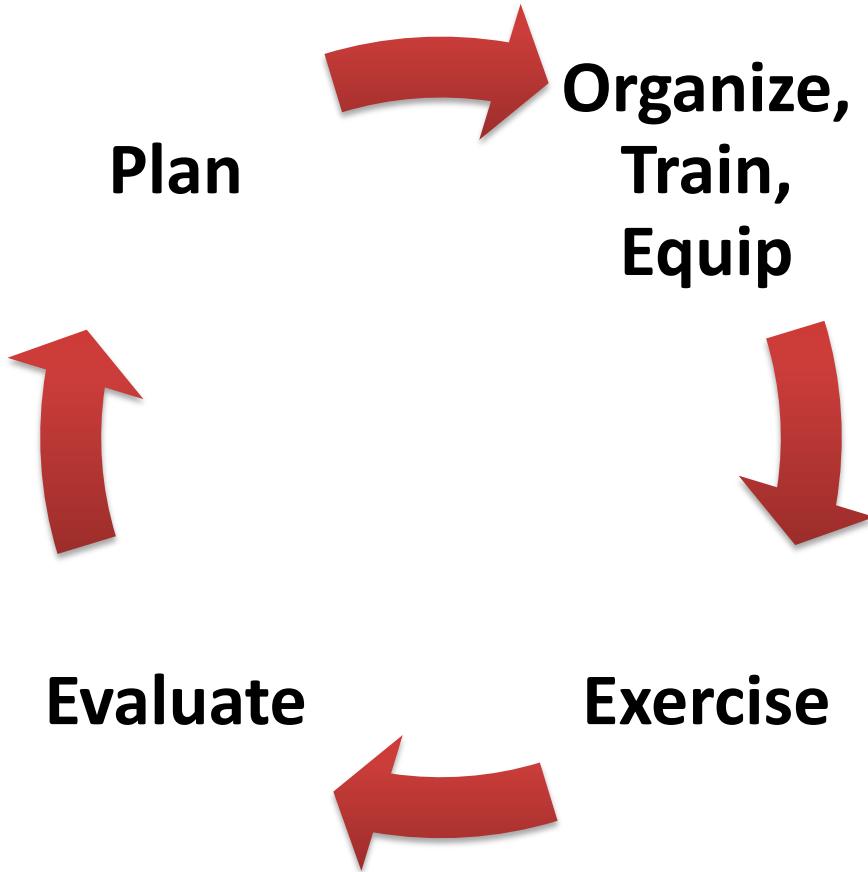
- Timelines and some of the storylines will be artificial
- If we do not have people to fill certain roles
  - Include person/ministry would do in your response plan
  - Continue on with scenario
- Ask facilitators for help if you are stuck
  - We can guide you in the right direction



# Roles

- **Evaluators:** Regional experts here to provide feedback and questions during the After Action Review
- **Observers:** Sponsors and others interested in learning from you about regional pandemic preparedness
- **Facilitators:** Staff exercise experts here to guide you through materials
- **Participants:** Have the expertise in safeguards, security, policy, regulations, guidelines and response; Understand your ministry's current practices and protocols for responding to an incident; Dedicated to improving preparedness for nuclear incidents

# Questions?





# Exercise Objectives

- Identify the Problem: Clarify specific safeguards verification challenges, such as transfer verification of spent fuel elements between fuel ponds and dry storage facilities.
- Learn New Technologies: Find out about different technologies available for safeguarding spent fuel in-situ and in transit; advantages and disadvantages of these different technology approaches (deployment, cost, strengths and weaknesses).
- Define Requirements: Discuss the basics of developing requirements for addressing performance-based and prescriptive specific safeguards verification challenges that emerge from regulatory needs as well as from facility operator and safeguards inspector experience.



# Exercise Objectives

- Create a Plan: Develop a system-level plan for how to meet verification requirements, deploy verification technologies and instruments—taking into consideration the optimal technical systems and approaches consistent with ARN requirements.
- Summarize Findings: Through the After Action Review of the Scenario-Based Simulation, summarize findings from workshop—including the requirements identified, the plan for addressing requirements identified and any next steps for follow-on report.



# Purpose of this event

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**TTX: Scenario-based approach to understand approaches for spent fuel containment and surveillance.**

**At each step, we will focus on identifying**

- Clarify roles and responsibilities at each step of spent fuel pool storage, transfer and dry storage
- Identify potential gaps in safeguards technologies during spent fuel pool storage, transfer and dry storage
- Develop a checklist to ensure continuity of knowledge during spent fuel pool storage, transfer and dry storage



# Expected event outcomes

## Overall Outcomes

- After action report (Day 4 – Morning)
  - Developed by participants
  - Identify roles, responsibilities
  - Strengths & areas of improvement in plans, procedures, technologies, requirements and continuity of knowledge.
- Next Steps – Develop system-level plan to meet these requirements - Day 4 – Afternoon

# Questions?





# Introductions

**Each person will be allotted time to introduce themselves**

- Name, Title
- Organization
- Role in nuclear safeguards/security
- What do you like to do when you are not at work?



## Each group will be allotted 2-4 minutes to share

- Share if your group has formal plans for containment and surveillance of spent fuel
  - Operator
  - Inspector
  - Regulator
  - Ministry

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# Agenda Overview

## Day 1

- Sign In
- Welcome & Introductions
- Defining the problem
- Containment/surveillance technologies

## Day 2

- Introduction to scenario based simulations
- Scenario based simulation phase I

## Day 3

- Scenario based simulation phase 2 and 3

## Day 4

- Scenario based simulation after action review
- Develop system level plan to meet the requirements
- Closing and certificates



# Ground Rules

## Open and honest communication

- **No “Right” Or “Wrong” Answers**
- Don’t Fight The Scenario
- Respect Fellow Participants
- Cell Phones Will Need To Be Turned Off Or On Silent
- Meals And Breaks Will Be Provided Throughout
- Table Facilitators Will Keep Workshop On Schedule
- **Please Let Us Know If You Have Questions Or Concerns**

**Your Active Participation  
Is The Key To A Successful Workshop!**



# Format for this exercise:

## 1) Scenario will be provided to you in 3 phases

- We will give you a piece of paper at the beginning of each phase
- The paper will have information about the scenario specific to the phase to be discussed
- Everyone is getting the same information

### Keys to Success:

You *can* ask each other for information or other experts in this room.

***[Facilitators are not here to “help” – just to guide and learn from you]***



# Format for this exercise:

## 2) For each part of the scenario, we will ask you:

- What you would be doing, based on information given, using *existing* plans and protocols?
- What action steps are taken?
- How do you ensure continuity of knowledge?
- Whom did you contact (sector/table) about new information?
- What gaps or needs were identified?

### Keys to success:

- Help your facilitator to keep track of communication among different groups
- Make sure to answer all questions based on existing plans...
- Be honest – success in this workshop depends on you identifying not only strengths but also areas to improve



# Format for this exercise:

## 3) Evaluate

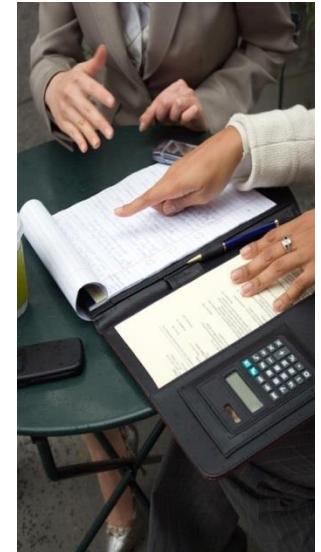
- **Hotwash/Debrief after each Part**
  - Note areas of improvement right away
  - Quick review of strengths & areas of improvement after each part
  - Will be done at group level, so information can be recorded for your after action report
- **After Action Report at the End**
  - Review roles, responsibilities
  - How well did groups work together? Are there places for improvement?
  - Did existing plans prepare you for this scenario?



# When the tabletop is over:

## Evaluate the coordination

- Evaluate
  - What were the strengths?
  - What can we do better next time?
- Plans
  - Did we have the plans and protocols we needed?
  - How well did we follow existing plans?
  - Did the plans work in this situation?
  - How can we improve before construction completed?

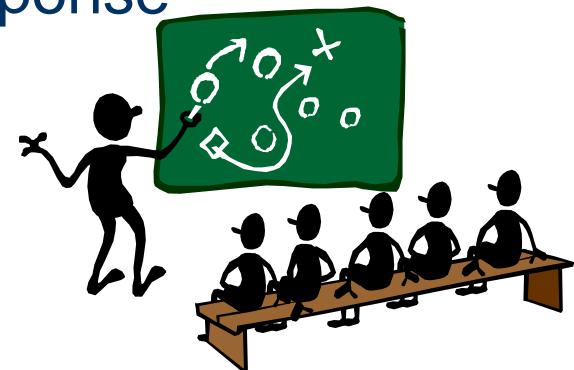




# Best Practices

## Debriefing

- Learning opportunity
- Meeting conducted
  - Informal, non-judgmental sharing
- Debrief strengths, weaknesses in response
- Different levels
  - Within the groups
  - Lead ministry hosts for other participants





# Best Practices

## After Action Report

- Learning opportunity
- Write a comprehensive report detailing process
- Include strengths and weaknesses
- Incorporate opinions from all sectors involved
- Use to update your current plans
  - May write for one or multiple agencies





# Keys to Successful Debriefing and After Action Reports

## No judgments or attributions—share your thoughts

- Talk in terms of functional roles (not using names)
- Do not blame individuals
- Do not take anything personally
- Institute policy to protect participants from retribution
- Informal, flexible



No right or wrong answers

Everyone can participate across all ranks

Use a methodology to do the evaluation

Always update, improve plans & practices with findings