

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



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INTERNATIONAL NUCLEAR **SAFEGUARDS**

Event Overview

- Review Tabletop Exercise Methodology
- Review Materials

Purpose & Limitations

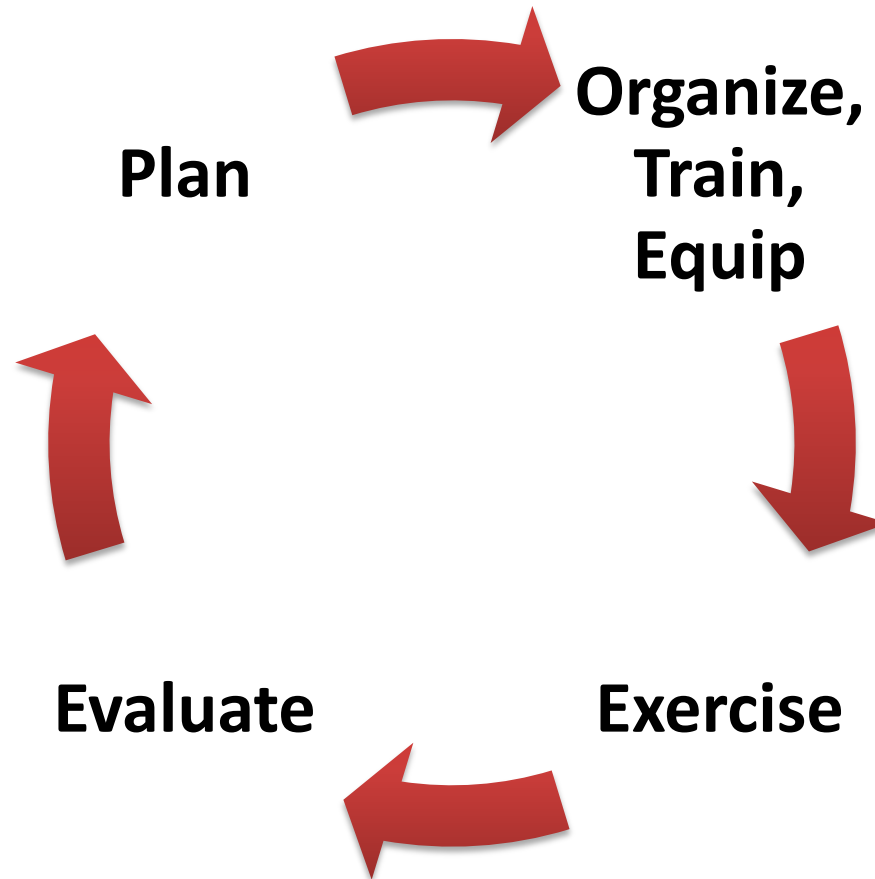


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INTERNATIONAL NUCLEAR **SAFEGUARDS**



Why do we use exercises?



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INTERNATIONAL NUCLEAR SAFEGUARDS

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



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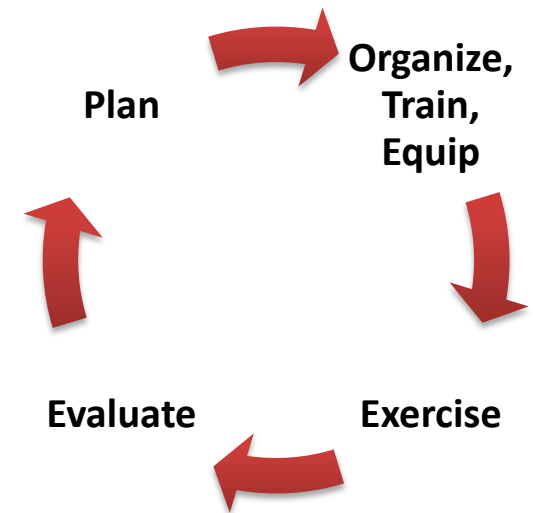
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One piece of a preparedness-program

- 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



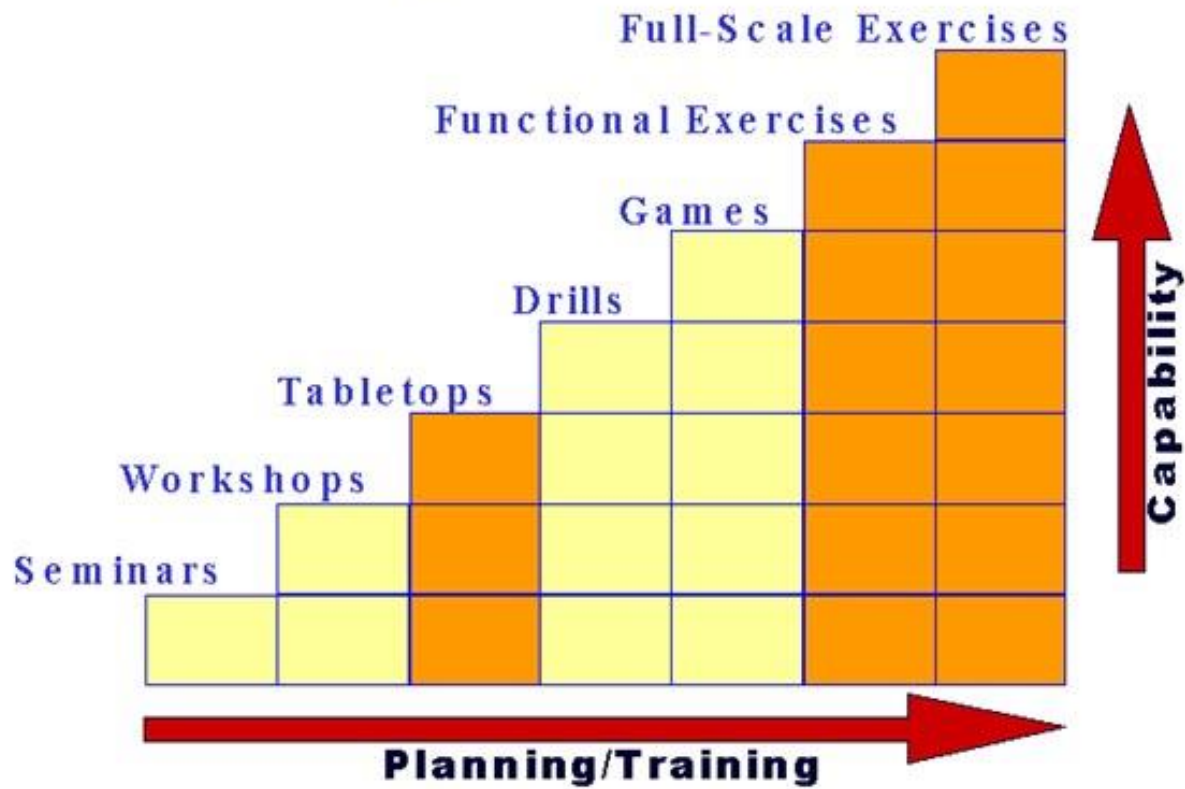
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Building Block Approach



[Ref: HSEEP]

Exercise Benefits



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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



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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



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- **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?

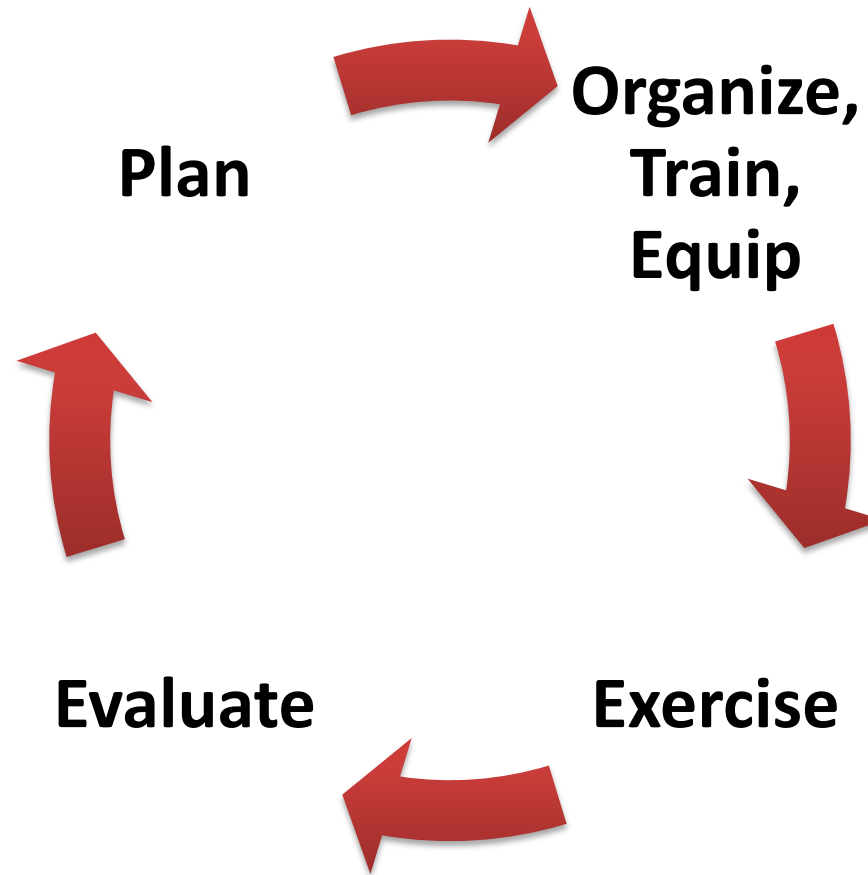


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Exercise Objectives



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- 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



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- 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



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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?



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Introductions



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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

Argentina Regulatory Authority Tabletop Exercise

Event Overview

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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



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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



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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:



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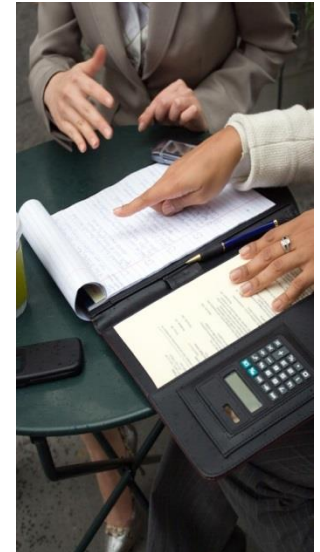
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Evaluate the coordination

- 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



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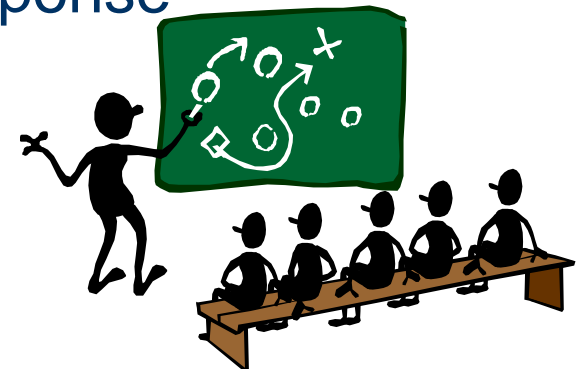
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Debriefing

- 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



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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

