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PREPARATION, CONDUCT AND EVALUATION OF

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EXERCISES FOR DETECTION OF AND RESPONSE TO ACTS

10

INVOLVING NUCLEAR AND OTHER RADIOACTIVE

11

MATERIAL OUT OF REGULATORY CONTROL

12

DRAFT TECHNICAL GUIDANCE

13

14

**FOREWORD**

15 [Standard NSS foreword to be added]

DRAFT FOR MS COMMENT

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# 1. INTRODUCTION

## 2 BACKGROUND

1.1 The IAEA Nuclear Security Series provides guidance for States to assist them in implementing a national nuclear security regime, and in reviewing and when necessary strengthening this regime. The series also provides guidance for States in fulfilling their obligations and commitments with respect to binding and non-binding international instruments. The Nuclear Security Fundamentals set out the objective of a nuclear security regime and its essential elements [1]. The Nuclear Security Recommendations indicate what a nuclear security regime should address regarding:

- Physical Protection of Nuclear Material and Nuclear Facilities [2];
- Radioactive Material and Associated Facilities [3]; and
- Nuclear and Other Radioactive Material out of Regulatory Control [4].

1.2 The current Technical Guide provides guidance on exercises supplemental to the guidance provided in Ref. [4] as well as that contained in the following IAEA Nuclear Security Series publications:

- *Nuclear Security Systems and Measures for Detection of Nuclear and other Radioactive Material out of Regulatory Control (NSS-21)* [3]
- *Development of a National Framework for Response to Nuclear Security Events (NST004)* [4]
- *Nuclear Forensics in Support of Investigations (NSS-2G)* [5]
- *Risk Informed Approach for Nuclear Security Measures for Nuclear and other Radioactive Material out of Regulatory Control (NSS 24-G)* [6]
- *Radiological Crime Scene Management (NSS 22-G)* [7]

## 22 OBJECTIVE

1.3 The objective of this publication is to provide practical guidance for design and delivery of exercises for nuclear security systems and measures for the detection of and response to acts involving nuclear and other radioactive material out of regulatory control.

1.4 This publication is intended for competent authorities involved in the preparation, conduct and evaluation of nuclear security exercises, including law enforcement, customs, border security, emergency response, regulatory bodies and technical and scientific support organizations.

1 SCOPE

2 1.5 This publication provides guidance on the preparation, conduct and evaluation of exercises for  
3 nuclear security systems and measures for the detection of and response to intentional unauthorized  
4 acts involving nuclear and other radioactive material out of regulatory control, including radiological  
5 crime scene management and nuclear forensics. This publication does not provide guidance on  
6 exercises involving the detection of or response to nuclear security events involving nuclear and other  
7 radioactive material under regulatory control or regulated facilities or activities, which are addressed  
8 in Refs. [8] and [9].

9 1.6 While this publication focuses on the preparation, conduct and evaluation of individual  
10 exercises, organizers might also consider the information provided here when developing a national  
11 programme<sup>1</sup> of nuclear security exercises for systems and measures for the detection of and response  
12 to acts involving nuclear and other radioactive material out of regulatory control. A national exercise  
13 programme allows for individual exercise results to inform and continuously improve the national  
14 nuclear security framework for material out of regulatory control [12], and can allow a State to ensure  
15 exercises are part of a coordinated, integrated approach to building and sustaining a nuclear security  
16 regime. The national exercise programme should allow a consistent approach in the preparation,  
17 conduct and evaluation of exercises that are to be used to also test relevant interfaces between security  
18 measures and emergency arrangements in case of a nuclear or radiological emergency triggered by a  
19 nuclear security event and associated with material out of regulatory control in line with the IAEA  
20 Nuclear Security Series recommendations and guidelines as well as the requirements addressed in the  
21 IAEA Safety Standards, General Safety Requirements, GSR Part 7, 2015 [10] and guidance provided  
22 in the Preparation, Conduct and Evaluation of Exercises to Test Preparedness for a Nuclear or  
23 Radiological Emergency (EPR Exercise 2005) [11].

24 1.7 This publication does not address exercises that do not involve an evaluation component, such  
25 as those used as demonstrations of a State's nuclear security regime. Such demonstrations typically  
26 consist of scripted and rehearsed displays of personnel, skills, equipment, and expertise and may be  
27 used to foster communication and build awareness amongst stakeholders, policymakers, and the  
28 public.

29 1.8 This publication does not address preparation, conduct and evaluation of exercises to test  
30 arrangements in place to respond to any nuclear or radiological emergency associated with material  
31 under regulatory control for which GSR Part 7, 2015 [10] and EPR Exercise 2005 [11] apply.

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<sup>1</sup> A programme of nuclear security exercises refers here to a broader State or organizational-level effort to plan a series of future exercises.

1    **STRUCTURE**

2    1.9   Following this introduction, Section 2 provides an overview of capabilities-based exercise  
3    methodology that a State can use to prepare, conduct, and evaluate exercises. Section 3, 4 and 5  
4    describe, respectively, how to prepare, conduct, and evaluate exercises using this methodology. The  
5    Annexes present examples of templates and checklists that may be used during the preparation,  
6    conduct, and evaluation of an exercise. Annexes I-XIII provide example checklists and templates for  
7    conducting and evaluating exercises.

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1     **2. INTRODUCTION TO METHODOLOGY FOR PREPARING, CONDUCTING**  
2                                   **AND EVALUATING EXERCISES**

3     2.1 As described in the Nuclear Security Recommendations on Nuclear and Other Radioactive  
4     Material out of Regulatory Control (NSS 15), exercises are important for a State to maintain an  
5     effective and sustainable system to detect and respond to criminal, intentional or unintentional  
6     unauthorized acts involving nuclear and other radioactive material out of regulatory control [2].

7     2.2 An ‘exercise’ refers to a structured activity that places participants or organizations in a  
8     simulated situation requiring them to function in the capacity that is expected during a real event.

9     2.3 Exercise planners should consider using a structured method for planning, conducting, and  
10    evaluating an exercise. Implementing a structured process to prepare, conduct, and evaluate exercises  
11    allows a State to assess, validate and improve detection and response strategies, plans, and  
12    capabilities. Additionally, exercises can provide a platform for a State to test, in a controlled  
13    environment, the knowledge and skills of individuals and organizations as well as new approaches  
14    and technologies. Such efforts can inform, motivate, and promote confidence in a State’s ability to  
15    detect and respond to acts involving material out of regulatory control.

16    2.4 Exercises can promote coordination and cooperation among participating organizations, such as  
17    competent authorities and other stakeholders, and provide insight into areas of strength and weakness,  
18    as well as good practices. Exercises should be repeated over time as changes are introduced to the  
19    State’s nuclear security regime.

20    **CAPABILITIES-BASED APPROACH TO EXERCISE PLANNING, CONDUCT AND**  
21    **EVALUATION**

22    2.5 In this publication, a capabilities-based approach is used to describe the preparation, conduct  
23    and evaluation of nuclear security exercises related to the detection of and response to intentional  
24    unauthorized acts involving nuclear and other radioactive material out of regulatory control. This  
25    type of approach links the objectives and outcomes of the exercise to a set of identified capabilities of  
26    the State.

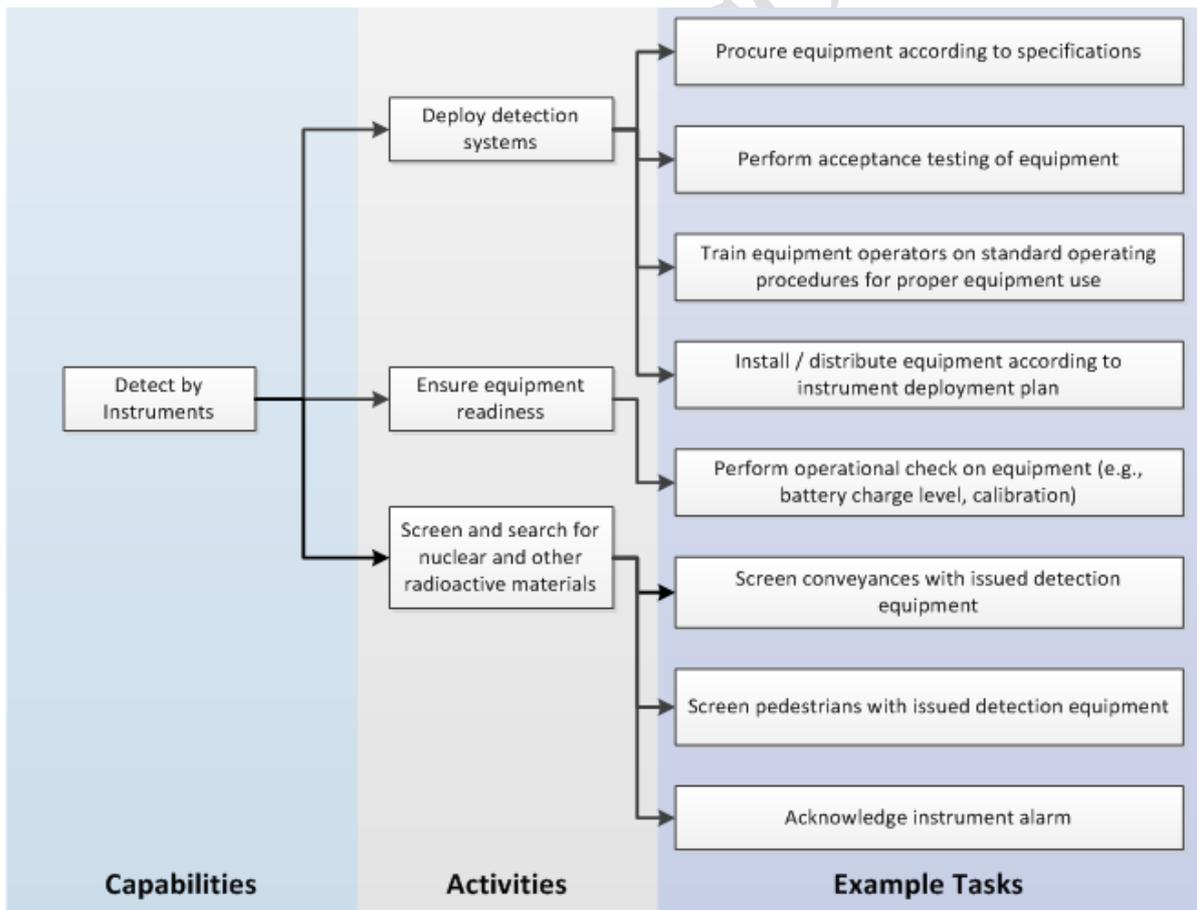
27    2.6 In the capabilities-based approach, the purpose of the exercise is to evaluate certain broad  
28    “capabilities” of the State associated with detecting and responding to malicious or inadvertent acts  
29    involving nuclear and other radioactive material out of regulatory control. For example, capabilities  
30    of the State to be exercised could include detection by information, information analysis and nuclear  
31    forensics.

32    2.7 The State should identify needed capabilities to detect and respond to material out of regulatory  
33    control in order develop an exercise using a capabilities-based approach. States implement distinct  
34    activities that are associated with each of these capabilities and can be used to evaluate the capability

1 during an exercise. For each capability, there are certain activities implemented by relevant competent  
2 authorities and other stakeholders in order to achieve the goal associated with that capability. For  
3 example, activities related to detection of information could include gathering, storing, and analysing  
4 operational information or reporting loss of regulatory control. Further examples of capabilities and  
5 activities are provided in paragraphs 2.10 – 2.20.

6 2.8 These activities can be decomposed into discrete tasks that must be performed successfully at  
7 an established level of proficiency. Tasks should have corresponding measurable performance criteria  
8 or standards, which allow for the evaluation of the tasks, activities, and ultimately, the corresponding  
9 capability. Tasks could be derived from established plans and procedures. Each competent authority  
10 should identify specific tasks that personnel must perform proficiently in order to meet the relevant  
11 capabilities.

12 2.9 Figure 1 provides an example of one capability and how its associated activities and tasks can  
13 be decomposed. The activities and tasks shown in the example are not comprehensive; they are  
14 simply meant to illustrate how a capability can be broken down into activities and tasks.



15

16

FIG. 1: An example of developing tasks associated with a 'detect by instrument' capability.

## 1 **Examples of capabilities and activities**

2 2.10 Examples of State capabilities and activities for the detection of and response to intentional  
3 unauthorized acts involving material out of regulatory control include:

- 4 a) Detection by information,
- 5 b) Detection by instrument,
- 6 c) Information analysis,
- 7 d) Notification,
- 8 e) Activation and deployment,
- 9 f) Information sharing and communication,
- 10 g) Interdict and secure,
- 11 h) Nuclear forensics, and
- 12 i) International cooperation.

13 2.11 Exercise planners should consider using these capabilities, discussed further in the following  
14 paragraphs, when adopting a capabilities-based approach to exercise planning, conduct and  
15 evaluation. These examples are not intended to be exhaustive, and exercise planners should adapt  
16 them to the needs of the particular exercise.

17 2.12 The capability “detection by information” includes activities involving gathering, storing and  
18 analysing input from a range of sources. Types of input include: operational information; medical  
19 reporting (e.g. over-exposure, radiation burns and lesions); reporting of regulatory non-compliance;  
20 reporting loss of regulatory control; and other information regarding material (e.g. targeted or  
21 currently out of regulatory control), adversaries and/or targets. Additional activities that could be  
22 considered part of this capability include confirming the status of a nuclear security event (e.g., in  
23 progress, ongoing, stand-off, adversaries neutralized) and confirming the amount and/or nature of  
24 nuclear or other radioactive material related to the nuclear security event. More information on  
25 detection by information is available in Ref. [3].

26 2.13 The capability “detection by instrument” includes activities such as: deploying detection  
27 systems; confirming detection equipment readiness; screening and searching for nuclear and other  
28 radioactive material; collecting information about nuclear and other radioactive material out of  
29 regulatory control, an adversary and/or a target; confirming the status of a nuclear security event; and  
30 confirming the nature of nuclear or other radioactive material out of regulatory control. More  
31 information on detection by instrument is available in Ref. [3].

1 2.14 The capability “information analysis” includes activities such as: gathering and analysing  
2 information about a potential or on-going nuclear security event; assessing, confirming and validating  
3 alarms and alerts; assessing potential adversaries; protecting sensitive information; and sharing  
4 appropriate information with partner organizations. In addition, activities associated with information  
5 analysis could include assessing the situation during the initial stages of a nuclear security event (e.g.,  
6 adversary, method, nature of material involved and whether the material is stationary or in transport),  
7 monitoring an ongoing nuclear security event, and estimating potential consequences of a nuclear  
8 security event (e.g., health, economic and societal and environmental effect). This capability could  
9 include assessing the possibility of multiple nuclear security events or the escalation of a nuclear  
10 security event type. Other activities include, assessing the potential international impact (e.g. impact  
11 on shipping and cross-border movement of goods or people), identifying appropriate resources to  
12 deploy response measures, and reassessing all analyses as more information is received. More  
13 information on information analysis is available in Refs. [3] and [4].

14 2.15 The capability “notification, activation and deployment” includes activities such as: notifying  
15 relevant competent authorities of the nuclear security event; activating relevant response plans;  
16 deploying radiation monitoring teams; establishing a command structure at all levels (e.g., policy,  
17 strategic, tactical and operational); deploying appropriate resources to respond to the nuclear security  
18 event; reinforcing security measures and activities at strategic locations; sharing information on the  
19 status of the nuclear security event with all relevant response organizations; and requesting  
20 international cooperation and assistance, as necessary. More information on notification, activation  
21 and deployment is available in Refs. [3] and [4].

22 2.16 The capability “information sharing and communication” may include communicating with  
23 competent authorities, other stakeholders, the media, the general public and international partners  
24 regarding the nuclear security event. More information on information sharing and communication is  
25 available in Refs. [3] and [4].

26 2.17 The capability “crime scene management” includes activities such as: establishing protection  
27 boundaries; establishing a perimeter and securing first responders and evidence; implementing  
28 radiological crime scene management initiating investigations; collecting and handling evidence;  
29 engaging prosecution; collecting evidence associated with the nuclear security event; obtaining  
30 eyewitness and expert witness testimony; maintaining the integrity of evidence; and ensuring chain of  
31 custody, conducting conventional and nuclear forensics as needed, and supporting prosecution. More  
32 information about crime scene management is available in Refs. [4] and [7].

33 2.18 The capability “interdict and secure” includes activities such as: disrupting an ongoing nuclear  
34 security event; obtaining control of device, material and/or potential adversaries; detaining, seizing  
35 and confiscating material out of regulatory control; recovering and regaining regulatory control of the

1 material; packaging, transporting and storing the material once regulatory control has been regained;  
2 removal of the material to a secure location; and reinforcing security measures at the scene. More  
3 information on interdiction and security is available in Refs. [2], [4], [7], and [13].

4 2.19 The capability “nuclear forensics” includes activities such as: determining the quantity and  
5 nature of nuclear or other radioactive material seized or obtained; categorizing and characterizing the  
6 material; preserving exhibits and evidence; determining if material is consistent with national  
7 holdings; and using traditional forensics, as appropriate. More information on interdiction and  
8 security is available in Refs. [5] and [7].

9 2.20 The capability “international cooperation” includes activities such as: the exchanging of  
10 information on nuclear security events between States or with international / regional organizations;  
11 engaging technical cooperation and assistance from another State or international / regional  
12 organizations; cooperating with other States or international / regional organizations with respect to  
13 criminal offences; and recovering and returning of seized items across borders. More information on  
14 international cooperation is available in Refs. [2], [3] [4], [7] and [13].

## 15 EXERCISE FORMATS AND TYPES OF EXERCISES

16 2.21 Under a capabilities-based approach, exercises can be structured using either a discussion-based  
17 or an operations-based format. During discussion-based exercises, participants engage in a facilitated  
18 discussion of a realistic scenario. During operations-based exercises, participants enact a scenario in  
19 an operational environment, based on their training, plans and expertise.

20 2.22 In the section that follows, exercise activities structured under both formats will be described in  
21 more detail, including different types of exercises that could be performed, such as table top exercises  
22 (TTX), drills and field training exercises (FTX). This section also covers workshops, which are often  
23 used to facilitate exercises.

### 24 **Discussion-based Format**

25 2.23 Workshops and TTX are two common discussion based exercise activities. A workshop, while  
26 not an exercise itself, is a discussion-based activity designed to improve and/or revise plans, policies  
27 or procedures. Workshops are typically used to develop concepts of operations, standard operating  
28 procedures, and/or response plans.

29 2.24 In TTX exercises, participants engage in a facilitated discussion of a realistic scenario in order  
30 to evaluate the State’s existing nuclear security policies, procedures and plans. Participants discuss the  
31 plans and procedures necessary to address a given scenario. This discussion is structured and  
32 moderated by a facilitator(s).

## 1 **Operations-based Format**

2 2.25 Operations-based exercises are conducted in an operational or field environment (e.g., border  
3 checkpoint, laboratory or command centre). An operations-based exercise engages personnel in the  
4 field and assets in realistic scenarios, in a manner that mimics the stress and practical constraints of an  
5 actual incident. Drills and field training exercises (FTX) are two common types of operations-based  
6 exercises.

7 2.26 A drill is typically used to test a single, specific operation or task within a single competent  
8 authority or at a specific operational location. Drills are typically smaller in scale than FTX.

9 2.27 An FTX is an operations-based event designed to evaluate individual and collective capabilities  
10 in near real-time. FTX can be designed broadly, including multiple competent authorities or multiple  
11 locations, or focused within a specific competent authority.

## 12 **Comparison of Exercise Types**

13 2.28 When selecting an exercise type, the complexity of the planned exercise should be considered.  
14 Exercises can be designed to address a single capability or multiple capabilities, involve a single or  
15 multiple competent authorities, and/or be conducted at local, national, regional, and international  
16 levels.

17 2.29 In general, the complexity of the exercise depends on the number of capabilities to be  
18 evaluated. When more capabilities are planned to be evaluated, the exercise is likely to be more  
19 complex, and more resources and time will typically be needed to plan the exercise. This can be an  
20 important consideration for exercise planners. Exercise planners could systematically develop  
21 experience in preparing, conducting and evaluating exercises through beginning with a smaller scale  
22 exercise and progressing toward a more complex exercise.

23 2.30 Moreover, each exercise type offers different approaches and outcomes. Notably, discussion-  
24 based exercises have different advantages and limitations than operations-based exercises. More  
25 detailed guidance on selecting the best exercise type based upon the objectives and scope of the  
26 exercise is discussed in Section 3.

27 2.31 A major advantage of discussion-based exercises is that they are typically less complex to plan  
28 and execute than operations-based exercises. They also involve the expenditure of a significantly  
29 fewer resources (e.g. time, finance, personnel) and can be suitable for senior-level personnel, such as  
30 managers and policy makers. Discussion-based exercises typically involve little to no stress for  
31 participants and players. Moreover, in discussion-based exercises, operational timelines can be  
32 artificially compressed, making this exercise format useful for identifying gaps in plans and policies.

1 2.32 Discussion-based exercises also have limitations. It can be difficult to involve front-line  
2 personnel in such exercises, as input into discussion-based exercises generally comes from their  
3 managers, who are the direct participants in the exercise. Discussion-based exercises are also not  
4 always realistic because of external factors such as communications, traffic and weather. Finally,  
5 practical considerations can be ignored in a discussion-based exercise that cannot be in an operations-  
6 based exercise. It can be difficult to evaluate the timeliness of operational plans and procedures in  
7 such exercises (e.g., availability of equipment, response time of technical expert support) and the  
8 functionality of equipment is typically not evaluated.

9 2.33 Operations-based exercises also have both advantages and limitations. Advantages include that  
10 such exercises can more effectively evaluate the timeliness of actions of personnel than discussion-  
11 based exercises. In addition, operations-based exercises allow personnel to use equipment and test  
12 plans and procedures in a realistic environment, and allows for them to demonstrate proficiency.  
13 Operations-based exercises can also realistically test command and communication (i.e., incident  
14 management) and can provide useful outcomes for both operational and managerial personnel as they  
15 test both the effectiveness of policies and implementation of plans.

16 2.34 However, operations-based exercises often involve the expenditure of more resources (time,  
17 finance, personnel) than discussion-based exercises, and additional safety considerations must be  
18 factored into planning (e.g, use of radioactive sources, weapon safety, weather or interference with  
19 ongoing operations). Moreover, the operations-based format is more complex when controlling  
20 exercise play.

## 21 FUTURE CONSIDERATIONS FOR EXERCISES

### 22 **Integrate across prevention, detection, and response activities**

23 2.35 The part of a State's nuclear security regime related to material out of regulatory control  
24 typically involves multiple competent authorities, with different authorities, jurisdictions, and  
25 priorities, which may be responsible for prevention, detection and response activities. States should  
26 consider exercises that integrate the capabilities and associated activities undertaken for prevention,  
27 detection and response.

28 2.36 States should also consider integrating nuclear security elements with other national or  
29 international exercises such as those described in EPR Exercise 2005 [11] and in "Preparation,  
30 Conduct and Evaluation of Exercises for Nuclear or other Radioactive Material Transport Security"  
31 [14]. To ensure an effective national exercises programme, states need to develop a common  
32 approach to preparation, conduct and evaluation of exercises taking into account the varying  
33 approaches described in these documents.

1

2 **Leverage existing training programmes**

3 2.37 An exercise should leverage existing training programmes that address an organization's  
4 knowledge, skills, and capabilities. A critical evaluation of ongoing training incorporated as part of  
5 the exercise allows for a State to progressively build on the skills and abilities of its personnel. An  
6 evaluation in light of the exercise outcomes can also identify training strengths and weaknesses.

7

8

DRAFT FOR MS COMMENT

### 3. PREPARATION OF EXERCISES

3.1 The purpose of exercise preparation is to define the key planning elements of the exercise and lay the foundation for the exercise conduct and evaluation. These key planning elements are:

- a) Determining exercise capabilities, scope, and objectives;
- b) Choosing an exercise format and type;
- c) Identifying constraints and considerations;
- d) Developing a planning timeline for an exercise;
- e) Developing an exercise scenario;
- f) Identifying exercise participants and their roles;
- g) Developing evaluation criteria; and
- h) Establishing exercise documentation needs.

3.2 In this following sub-sections, each of these exercise planning elements will be discussed and a step by step approach to planning and preparing for an exercise will be presented.

3.3 To prepare the exercise, the State or competent authority responsible for organizing the exercise should form an exercise planning team,<sup>2</sup> including members from each of the principal organizations involved in the exercise. This team should meet regularly during preparation of the exercise. More information on the exercise planning team and its roles and responsibilities is addressed in paragraphs 3.42-3.43.

#### DETERMINING EXERCISE CAPABILITIES, SCOPE, AND OBJECTIVES

##### **Capabilities**

3.4 Exercise planners should determine which capability or capabilities need to be evaluated during an exercise. As noted in Section 2, the complexity of the exercise will increase as more capabilities are evaluated. One typical approach is for exercise planners to select specific capabilities of interest for evaluation that can be realistically exercised. Once these specific capabilities have been identified, the scope and objectives of the exercise can be developed.

---

<sup>2</sup> 'Exercise Planners', a term also used throughout the publication, is intended to refer to any competent authorities or other stakeholders with responsibilities for managing, planning or conducting exercises, and is distinct from the exercise planning team.

## 1 **Scope**

2 3.5 Determining the scope of the exercise enables planners to develop an exercise that accounts for  
3 the time, resources, personnel and other constraints of the exercising organizations. The exercise  
4 scope should account for the type of exercise to be undertaken, the organizations participating in it,  
5 the resources needed for the exercise, as well as its duration and location. The exercise scope should  
6 also set out the scale of the exercise. For example, a TTX held at a national level would be a larger-  
7 scale exercise than a site-level drill with one agency participating, because the number of  
8 organizations participating and associated need for resources, would be larger.

9 3.6 As an example, an exercise planning team might develop an exercise scope such as the  
10 following: “The exercise is an operations-based radiation detection field training exercise with Border  
11 Guards, Customs, and Expert Support that will take one day at an operational / field environment  
12 using radiation portal monitors, mobile detection systems, and information management systems.”

## 13 **Objectives**

14 3.7 Once the scope is defined, the next step is to identify the objectives of the exercise. These  
15 objectives should be aligned with the capabilities, activities, and tasks relevant to the scope of the  
16 exercise. The organizations involved in the exercise should contribute to setting exercise objectives  
17 and in subsequent planning decisions.

18 3.8 Well-defined exercise objectives provide a framework for the development of the exercise  
19 scenario, inform exercise evaluation criteria, and can help to coordinate various organizations’ efforts  
20 towards performing tasks of planning the exercise. Objectives should fulfil the following criteria:

- 21 a) *Specific*: Each objective should be concise, clearly phrased and easy to understand;
- 22 b) *Achievable*: Each objective should be realistic and achievable with the resources that the  
23 organization is able to commit to the exercise;
- 24 c) *Relevant*: Each objective should be relevant to the participants and organizations and focus on  
25 a behaviour or procedure connected to a capability, activity, and task.
- 26 d) *Measurable*: Each objective should be stated such that performance criteria can be developed  
27 in order to assess the exercise outcomes.

28 3.9 Exercise objectives should focus on plans, policies and procedures and enable development of  
29 evaluation criteria that identify good practices and opportunities for improvement. Objectives should  
30 correspond to the capabilities to be tested in the exercise, discussed in paragraph 3.12. Exercise

1 planners should limit the number of exercise objectives in order to enable timely delivery of the  
2 exercise and to facilitate design of a realistic scenario.

3 3.10 Examples of possible exercise objectives are:

4 a) To assess and evaluate front line officers' ability to detect and identify a radiation  
5 alarm according to their standard operating procedures (SOP) and equipment  
6 operating procedures; or

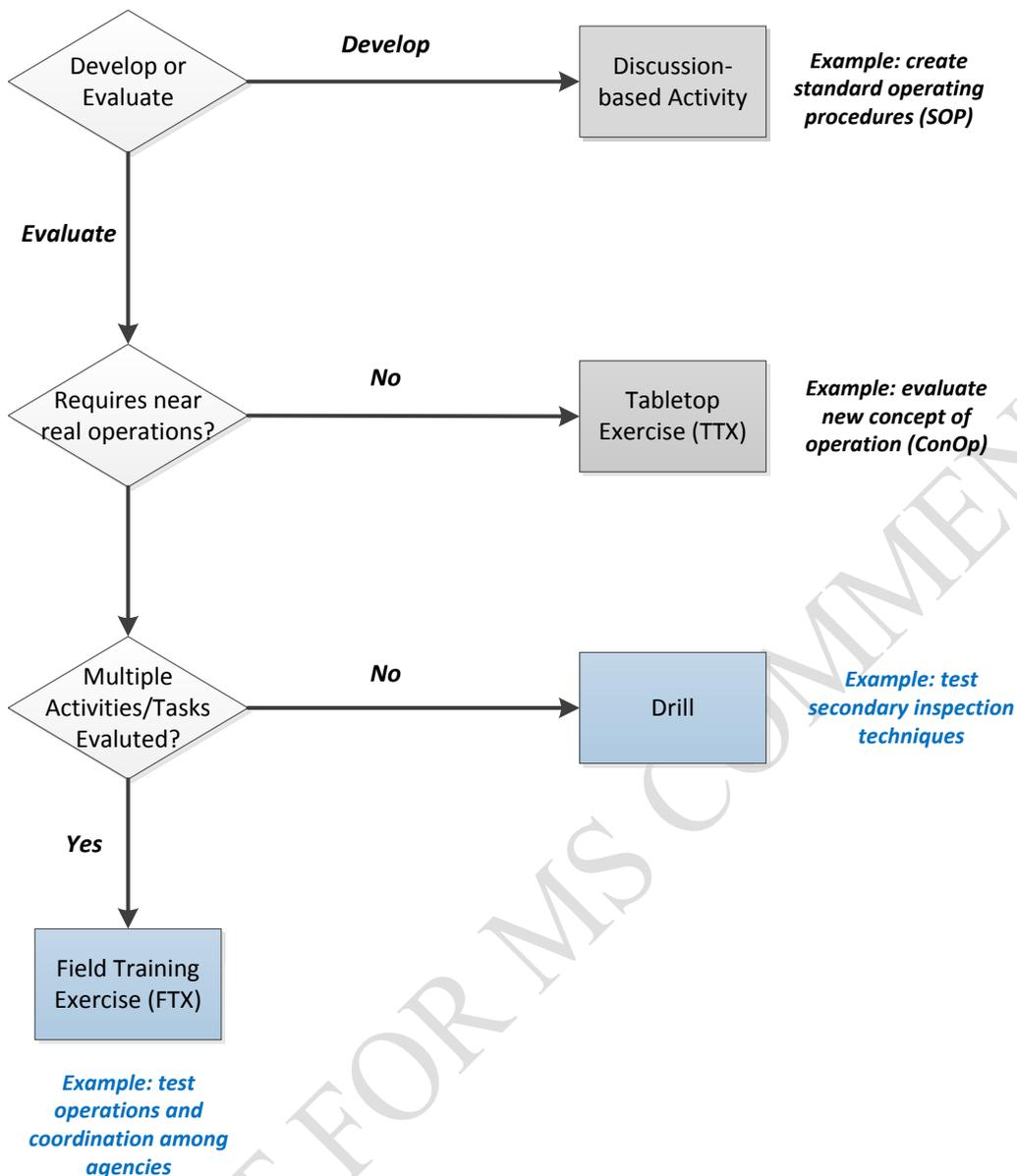
7 b) To evaluate participants' ability to receive, analyse, and disseminate information  
8 related to a threat caused by nuclear or other radioactive material out of regulatory  
9 control according to their standard operating procedures (SOP).

## 10 CHOOSING AN EXERCISE FORMAT AND TYPE

11 3.11 The exercise planning team should select the format for and type of exercise to be undertaken  
12 that provides the most appropriate and cost-effective way to achieve the objectives set out in the  
13 previous step.

14 3.12 If the objective of the exercise is to develop plans and procedures, such as standard operating  
15 procedures, a discussion-based exercise or an activity such as a workshop would be most appropriate.  
16 If, however, the objective of the exercise is to evaluate existing plans, procedures or operations of  
17 nuclear security detection and response systems and measures, either a discussion-based or  
18 operations-based exercise could be appropriate. In this case, it should be considered whether realistic  
19 operations are necessary, in which case, an operations-based exercise would be needed, or not, in  
20 which case a discussion-based exercise such as a TTX could suffice. In the case that realistic  
21 operations need to be evaluated, and an operations-based exercise is selected, a drill would be  
22 sufficient if only one activity or task is to be evaluated, while an FTX would be more appropriate if  
23 multiple activities and/or tasks are to be evaluated.

24 3.13 This suggested decision process for selecting an appropriate exercise type given the exercise  
25 objectives is set out in graphic form in Figure 2.



1

2

FIG. 2 : Decision tree for selecting an exercise type<sup>3</sup>.

3 IDENTIFYING CONSTRAINTS AND CONSIDERATIONS

4 3.14 Another important task during exercise preparation is the identification of constraints and  
 5 considerations that may affect the selected exercise scope and type. These factors include resource  
 6 requirements and availability, legal and regulatory considerations, safety considerations and the need  
 7 for liaison with the media and the general public.

---

<sup>3</sup> Note that if a State wants to develop an operational plan or procedure, a State can determine whether or not a workshop or tabletop format is most appropriate.

## 1 **Resources**

2 3.15 The amount of resources needed for an exercise can range widely. Exercises can be expensive,  
3 complex, and time-consuming endeavors, or they can be relatively simple and involve the expenditure  
4 of only limited resources.

5 3.16 The availability of appropriate technical, human and financial resources should be considered  
6 early in exercise preparation. The planning team should work with the participating organizations to  
7 identify financial resources, to begin to develop an exercise budget, and to define monitoring and  
8 reporting requirements, as needed. In addition, the time needed for planning the exercise and the  
9 resulting impact on available resources needs to be considered. For example, a TTX could take only  
10 weeks to plan while a more complex FTX may take as long as a year to plan.

## 11 **Legal and regulatory considerations**

12 3.17 Legal and regulatory requirements associated with nuclear detection and response operations  
13 should be considered during exercise planning and preparation. A review of jurisdictional boundaries  
14 and responsibilities may assist in identifying all relevant organizations for an exercise and ensure that  
15 the exercise represents a realistic situation and includes participation of all relevant organizations.

## 16 **Safety considerations**

17 3.18 Safety is paramount in any exercise. Factors to consider for a safe exercise include safety of  
18 personnel and the environment, the proper use and handling of nuclear and other radioactive  
19 materials, the presence of firearms, and other hazards. Evacuation routes should also be planned.

20 3.19 Exercise planners should develop a safety plan to minimize risks associated with the hazards of  
21 the exercise and ensure a safe experience. All exercise participants should be made aware of exercise  
22 safety rules.

## 23 **Liaison with media and the general public**

24 3.20 If it is anticipated that the media and/or the general public will be involved in the exercise, the  
25 exercise planning team should develop a plan for managing media interest and for interacting with the  
26 media and the general public.

27 3.21 Notably, the development and use of a media strategy could help to avoid confusion on part of  
28 the public. A media strategy should include the following points:

29 a) The media should be informed of the exercise prior to its conduct;

- 1        b) The media should be informed of the purpose of exercises, emphasizing the fact that it  
2            is normal and, indeed, desirable to find deficiencies, weaknesses and areas for  
3            improvements as a result of exercises; and
- 4        c) A separate section or department of the exercise organization should deal with the  
5            media during the exercise. The personnel in this group should not be players in the  
6            exercise [11].

## 7    DEVELOPING A PLANNING TIMELINE FOR AN EXERCISE

8    3.22 Once the exercise capabilities, scope and objectives have been developed, the type of exercise  
9    has been selected and constraints have been identified, a timeline should be developed that describes  
10   all important steps for the preparation, conduct, and evaluation of the exercise. The timeline should  
11   identify when these steps should be completed and the primary person or organization responsible for  
12   each step. The exercise planning timeline should include but might not be limited to the following  
13   steps, some of which may be completed before drafting the timeline for the exercise:

- 14        a) Formation of the planning team, including a description of various roles and  
15            responsibilities;
- 16        b) Determination of exercise scope, objectives and type;
- 17        c) Duration and location of exercise conduct;
- 18        d) Collection of plans and procedures relevant to the exercise;
- 19        e) Identification of participating organizations and determination of their degree of  
20            involvement;
- 21        f) Development of and/or identification of an exercise scenario;
- 22        g) Date and venue where the exercise will be conducted;
- 23        h) Identification of resource requirements;
- 24        i) Selection of exercise conduct and evaluation team;
- 25        j) Determination of exercise evaluation criteria;
- 26        k) Development of observer requirements and constraints;

- 1 l) Development of exercise briefings;
- 2 m) Conduct of the exercise;
- 3 n) Debrief of players and participants;
- 4 o) Development of exercise report; and
- 5 p) Development of improvement plan.

6 3.23 A template for developing a timeline for planning exercises can be found in Annex I.

## 7 DEVELOPING EXERCISE SCENARIOS

8 3.24 Once the exercise capabilities, scope, objectives, type and timeline have been determined, the  
9 next step in the preparation process is to develop the scenario(s). Exercise planners should not  
10 develop the scenario until the exercise capabilities, scope, objectives and type have been clearly  
11 defined.

12 3.25 An exercise scenario is an assumed set of realistic and credible conditions and/or events for the  
13 exercise. The scenario allows the participants to demonstrate expertise and competency in conducting  
14 tasks over the course of the exercise. The scenarios should be realistic and credible, and they should  
15 consider any sensitivity that may arise with the use of real names of adversary groups or sensitive  
16 venues.

17 3.26 Exercise scenarios should include three elements. First, the scenarios should establish the  
18 general context that allows participants to play. Next, the technical details necessary to accurately  
19 depict scenario conditions and events should be defined. Finally, the injects, controlled pieces of  
20 information or event updates provided to the participants during exercise play that allow for the  
21 evolution of the exercise, should be outlined. Not all participants will receive or be involved in the  
22 discussion or actions related to all of the injects. Certain exercise participants may be specifically  
23 targeted to receive the injects to evaluate their functions or actions.

24 3.27 An example scenario that illustrates these elements is provided in Annex II.

25 3.28 The exercise planning team could choose to use either a single scenario or multiple scenarios  
26 for the exercise, depending on the exercise capabilities, scope, and objectives. A single scenario  
27 provides participants the opportunity to exercise capabilities against a realistic, sequential set of  
28 events and for this response to be evaluated. The scenario is typically revealed through a series of  
29 injects.

1 3.29 However, it is also possible to use multiple unrelated scenarios, delivering each scenario by  
2 injects. This approach may be useful to achieve exercise objectives that may not be intrinsically  
3 linked to one another by time and space. For example, multiple unrelated scenarios may be utilized  
4 used when unrelated plans are being evaluated. In some cases, multiple scenarios may also be used if  
5 a specific procedure or process is being evaluated in the exercise, unrelated to other procedures and  
6 processes being evaluated, and a specific scenario which would drive discussion or action(s) around  
7 that procedure or process is necessary.

8 3.30 The exercise planning team should create a master scenario event list, described in Annex IV.  
9 A master scenario event list includes the description of expected events and how long it should take  
10 for them to be successfully resolved. The expected duration should be realistic. For example, an  
11 action that takes for example, fifteen minutes in real life should not be confined to five minutes in the  
12 scenario.

#### 13 14 IDENTIFYING EXERCISE PARTICIPANTS AND THEIR ROLES

15 3.31 In addition to developing the exercise timeline and scenario, exercise planners should also  
16 identify the exercise participants. Exercise participants include all persons with roles or  
17 responsibilities related to the preparation, conduct and evaluation.

18 3.32 The roles and responsibilities for exercise participants should be defined during exercise  
19 preparation. Roles for exercise participants and accompanying responsibilities are discussed in the  
20 following paragraphs.

21 3.33 The specific roles and responsibilities of the exercise participants should be adapted to the  
22 needs of an exercise. For example, smaller-scale exercises might utilize personnel in multiple roles.  
23 The exercise director might also serve a controller role. If one individual performs multiple exercise  
24 roles, then any potential conflicts should be minimized.

#### 25 **Exercise Director and Exercise Planning Team**

26 3.34 The exercise director leads the planning, conduct and evaluation of the exercise and oversees  
27 all exercise activities. The exercise director also assembles the exercise planning team.

28 3.35 The exercise planning team plans and designs the exercise and develops evaluation guidelines.  
29 Members of the planning team sometimes participate during the actual exercise as controllers,  
30 facilitators or evaluators.

## 1 **Controllers and Facilitators**

2 3.36 Controllers and facilitators guide exercise play. While in this sense the roles are similar, the  
3 specific tasks that facilitators (for discussion-based exercise formats) and controllers (for operations-  
4 based exercises) must undertake are somewhat different.

5 3.37 In discussion-based exercise formats, facilitators ensure that participant discussions remain  
6 focused on the exercise objectives and that all issues and objectives are explored as thoroughly as  
7 possible within the available time. The facilitator is responsible for keeping the discussion focused on  
8 the exercise objectives and ensuring that all issues are explored within the time allotted. Thus, the  
9 facilitator should possess the ability to keep all participants engaged in exercise play as well as keep  
10 discussions on track and within established time limits. A facilitator should also have functional area  
11 expertise or experience relative to the exercise and should be able to speak competently and  
12 confidently about the subject without dominating the conversation as well as be familiar with relevant  
13 plans and procedures. Facilitators should also demonstrate an ability to listen well and summarize  
14 player discussions.

15 3.38 If feasible and appropriate, co-facilitators who are knowledgeable about local issues, plans and  
16 procedures may assist the lead facilitator. Additionally, the exercise planning team may consider  
17 designating a recorder to take notes so that the facilitator(s) can focus on the key issues of the  
18 discussion.

19 3.39 In operations-based exercise formats, controllers plan and manage exercise play, set up and  
20 operate the exercise incident site, provide key data to players, and might also prompt or initiate certain  
21 player actions. Controllers also monitor exercise play for safety considerations.

22 3.40 For large scale exercises, there may be a team of controllers and/or facilitators. These teams are  
23 generally guided by a designated lead controller and/or facilitator.

## 24 **Evaluators**

25 3.41 Evaluators record key observations of the players' actions during the exercise and perform  
26 evaluations based on established guidelines. Evaluators typically have expertise in the expected  
27 actions of players and should not interfere with exercise play.

28 3.42 The exercise planning team should consider assembling an evaluation team and designating a  
29 lead evaluator to oversee and manage the process of evaluating the exercise. The lead evaluator could  
30 participate as a member of the exercise planning team and should be familiar with an exercise's  
31 objectives. The lead evaluator must have the skills to effectively communicate and coordinate with the  
32 exercise controllers, facilitators and other evaluators. The lead evaluator also determines the structure

1 of the exercise evaluation team based on the scope of the exercise, the exercise objectives, and the  
2 capabilities and tasks that will be evaluated during the exercise.

### 3 **Players**

4 3.43 Exercise players actively take part in an exercise by either participating in the discussion or by  
5 performing their roles and responsibilities.

### 6 **Simulators or Controlled Players**

7 3.44 Simulators or controlled players perform the roles of organizations or individuals within an  
8 organization that is not actually participating in an exercise in order to simulate realistic exercise play.

### 9 **Role Players**

10 3.45 Role players act out specific roles, such as adversaries, witnesses and victims, in order to add  
11 realism to an exercise.

### 12 **Media Spokesperson**

13 3.46 The media spokesperson serves as point of contact for coordination of all media interactions  
14 regarding the exercise and is responsible for providing any official statements.

15 3.47 A media spokesperson could provide information to the media before, during and after the  
16 exercise as well as develop media and public interactions instructions for exercise participants.  
17 Exercise participants might receive instructions from the media spokesperson on the appropriate  
18 interactions with the media before, during, and after the exercise. Additionally, the media  
19 spokesperson might organize a pre-exercise briefing with the media as well as a press release. Such  
20 measures could be assisted in ensuring that public messaging remains consistent and in avoiding any  
21 miscommunications, such as mistaking the exercise for a real event. The media spokesperson role is  
22 particularly important when an exercise involves any public space or space that will be viewable to  
23 the general public.

### 24 **Observers**

25 3.48 Observers attend an exercise in order to observe and learn from the event. Observers should be  
26 prepared to provide feedback if requested and should not interfere with the exercise.

1 **Safety Officer**

2 3.49 The safety officer monitors an operations-based exercise for safety and has the authority to stop  
3 exercise play. The safety officer provides a safety briefing to the exercise participants and receives  
4 reports on safety concerns from participants.

5 **Radiation protection expert**

6 3.50 The radiation protection expert ensures the safe and secure handling of the nuclear and other  
7 radioactive materials involved in operations-based exercises, in accordance with national regulations.

8 **Rapporteur**

9 3.51 The rapporteur maintains records of planning meetings and is responsible for maintaining the  
10 exercise log, describes each of the events that occur in an exercise, including the time at which each  
11 event occurs. The rapporteur also supports the planning team by coordinating and consolidating  
12 information collected by other exercise personnel during the exercise play and any subsequent  
13 debriefings.

14 **DEVELOPING EVALUATION CRITERIA**

15 3.52 Developing evaluation criteria is a critical part of exercise preparation. Evaluation criteria  
16 provide an established structure for evaluators to identify strengths and areas for improvement in  
17 nuclear security systems and measures for the detection of and response to intentional unauthorized  
18 acts involving nuclear and other radioactive material out of regulatory control during exercises.

19 3.53 Typically, evaluation criteria consist of a set of statements, which, taken as a whole, describe  
20 what would constitute good performance of the nuclear security systems and measures with respect to  
21 the capability or capabilities being exercised. Data is then collected during the exercise for  
22 comparison with the criteria, so that during the evaluation stage, a determination can be made  
23 regarding whether each capability was performed adequately during the exercise.

24 3.54 Evaluation criteria should be developed during exercise preparation, and should assess  
25 performance of the nuclear security systems and measures accounting for the capabilities, the  
26 associated activities and tasks to be exercised. Evaluation criteria should be based on existing  
27 policies, plans, and operating procedures.

28 3.55 When developing evaluation criteria, the planning team may consider using the following steps:

- 29 a) Develop activities specific to the capability being exercised, taking into account the exercise  
30 objectives and the exercise type.

- 1        b) Identify the tasks needed to accomplish the activity and to demonstrate that the State  
2            possesses the capability being exercised. Tasks may be derived from organizational plans,  
3            policies and procedures.
- 4        c) Maintain records of the documentation that is used in the development of the activities and  
5            tasks. These records will allow evaluators to more efficiently refer to plans or other  
6            documents as needed, and can also assist in the development of the exercise report.
- 7        d) Tailor the evaluation criteria to reflect whether the exercise is operations-based or discussion-  
8            based. In an operations-based exercise, evaluators observe exercise players performing tasks.  
9            In a discussion-based exercise, evaluators observe exercise players discussing or describing  
10           how tasks are performed.
- 11       e) Review and refine the evaluation criteria as the exercise planning process progresses, in order  
12           to ensure that the activities and tasks can be accomplished within the time and scope allotted  
13           for the exercise.

14 3.56 The exercise planning team should consider using a simple and objective rating system to  
15 analyse the data collected for comparison with each evaluation criterion. The use of such a system  
16 could lead to improved consistency between observations recorded by different evaluators.

17 3.57 As an example, a basic rating system could consist of three different ratings: Strength (S); Area  
18 of Improvement (AOI); and Not Evaluated or Observed (NE). A description of the grade as a guide  
19 could be provided to assist evaluators in consistently assigning the rating. In this example, a  
20 “Strength (S)” could be described as: “Players completed the activities and tasks associated with the  
21 capability in a manner that achieved the objective(s) and did not negatively affect the performance of  
22 other activities.” An “Area of Improvement (AOI)” rating could be described as: “Players completed  
23 or partially completed the activities and tasks associated with the capability in a manner where  
24 opportunities to enhance effectiveness and/or efficiency were observed.” Finally, the “Not Evaluated  
25 or Observed (NE)” grade could be described as: “The activities and tasks associated with the  
26 capability were not evaluated or observed in this event.”

27 3.58 The exercise planning team should document the evaluation criteria in exercise evaluation  
28 guides, which are guides written specifically for the evaluation team to provide needed information  
29 related to the exercise evaluation, such as how to use the evaluation criteria and the rating system.  
30 The use of exercise evaluation guides can streamline data collection, help enable thorough  
31 assessments of the exercised capabilities and help organizations to connect the data collected during  
32 the exercise results to the exercise objectives, capabilities, and tasks for further analysis and  
33 improvement planning.

1 3.59 In addition to considering the evaluation criteria, exercise evaluators should also note good  
2 practices when they are observed during the exercise.

### 3 ESTABLISHING EXERCISE DOCUMENTATION NEEDS

4 3.60 As part of the exercise preparation activities, the exercise planning team should identify  
5 documentation needed to communicate the objectives, scope and details of the exercise to all relevant  
6 participating organizations. Drafting the documentation for the exercise can provide an opportunity  
7 for participating organizations to reach consensus on key exercise decisions, for example, deciding the  
8 exercise scope, scale, and budget. They should also document the details needed to plan, conduct, and  
9 evaluate the exercise, and further, they should consider how the exercise outcomes and results will be  
10 documented and communicated to participating organizations, the competent authority and others, as  
11 needed.

12 3.61 A set of comprehensive and organized exercise documentation is needed to effectively plan,  
13 conduct and evaluate an exercise as well as to ensure that an accurate account of the exercise is  
14 preserved. This documentation should include a description of all critical issues, lessons learned and  
15 recommendations resulting from the exercise, to enable organizations to improve their nuclear  
16 security systems and measures as a result of the exercise. Moreover, maintaining such documentation  
17 can allow organizations to use past documentation to support future exercises.

18 3.62 While most exercise materials are not sensitive, distribution may need to be restricted for some  
19 materials such as scenario details and exercise results. Information determined to be sensitive should  
20 be handled according to the State's relevant laws regarding the protection of sensitive information.

21 3.63 In the following sub-sections, several types of documentation are discussed that to the exercise  
22 planning team should either put in place or consider when planning an exercise.

23 3.64 Exercises can be a resource-intensive process to prepare, conduct and evaluate. The use of  
24 common templates and checklists can be used to simplify the exercise process. Annexes III-XIII  
25 present templates and checklists that may be used during the preparation, conduct, and evaluation of  
26 an exercise. Exercises can vary widely in scope, scale, and complexity; therefore, these templates and  
27 checklists act as general guidance. Planners should determine the applicability of individual elements  
28 of the templates and checklists as they are planning their exercise.

### 29 **Documentation for All Exercises**

30 3.65 For all exercises, an exercise plan, a master scenario exercise events list, an exercise evaluation  
31 guide, a participant feedback form, and an exercise report should be developed.

1 3.66 The exercise plan should provide exercise participants with all the necessary tools for their  
2 roles in the exercise. An exercise plan provides all exercise participants with the exercise objectives,  
3 list of participating organizations and personnel, and a description of the roles and responsibilities of  
4 the participants in the exercise. An example Exercise Plan template can be found in Annex IV.

5 3.67 A master scenario exercise events list contains the complete listing of scenarios, narratives,  
6 injects and their associated sequencing during event play. This list is intended to be used by  
7 controllers, evaluators, and actors. An example master scenario exercise events list can be found in  
8 the Exercise Plan template found in Annex IV.

9 3.68 An exercise evaluation guide, also discussed in paragraphs 3.66, includes the exercise  
10 capabilities, event objectives, activities and tasks to be evaluated during the exercise. This guide also  
11 contains the evaluation criteria and ratings, as discussed in paragraphs 3.64 and 3.65. Example  
12 exercise evaluation guide templates can be found in Annex IV.

13 3.69 The participant feedback form is the data collection method by which participants can provide  
14 informal observations about the event. An example template can be found in Annex V.

15 3.70 The exercise report contains the findings from the exercise, ratings related to the performance  
16 of the exercised capabilities as derived from the evaluation criteria, and agreed tasks and actions for  
17 relevant organizations resulting from the exercise. An example Exercise Report template can be found  
18 in Annex VI.

19 3.71 The amount of documentation produced and decisions regarding which documents are prepared  
20 will depend upon the exercise type, scope, and scale.

### 21 **Additional Documentation for Discussion-Based Exercises**

22 3.72 In addition to the documents described in paragraphs 3.73-3.79, a situation manual, facilitator  
23 guide, and multimedia presentations can be helpful for discussion-based exercises.

24 3.73 The situation manual provides participants with the information needed to follow any multi-  
25 media presentations, as well as to perform their roles in the exercise and understand how the event  
26 will be executed.

27 3.74 Additionally, a facilitator guide provides facilitators with the information needed to ensure the  
28 event is executed in accordance with the stated objectives. This guide may include questions and/or  
29 scenarios and related injects that a facilitator would need in order to conduct the exercise.

30 3.75 Multimedia presentations are also helpful as a tool to assist facilitators in presenting scenarios  
31 to players and in providing overarching questions to assist in the facilitation of the exercise.

1 **Additional Documentation for Operations/Field-Based Exercises**

2 3.76 In addition to the documents described in paragraphs 3.73-3.79, a controller and evaluator  
3 handbook can be helpful for operations-based exercises.

4 3.77 The controller and evaluator handbook describes the roles and responsibilities of exercise  
5 controllers and evaluators as well as the procedures they should follow during the exercise. Because  
6 the controller and evaluator handbook contains information about the scenario(s) and about exercise  
7 administration, it should be distributed to only those individuals specifically designated as controllers  
8 or evaluators. The controller and evaluator handbook typically includes exercise site maps, exercise  
9 team contact information and specific assignments and guidance for controllers and evaluators.

10 **Tailoring Exercise Documentation Needs**

11 3.78 Depending upon the scope and scale of the exercise as well as the audience for the  
12 documentation, which should be targeted to the different roles and responsibilities of the exercise  
13 participants, some exercise documents may be combined. For example, a separate facilitator’s guide  
14 may not be needed for a small-scale TTX if the exercise plan includes the questions that a facilitator  
15 would need to ask to execute his or her roles and responsibilities during the exercise play. Table 1  
16 illustrates different exercise documents and to which exercise type and audience they would be most  
17 applicable.

18 TABLE 1. EXERCISE DOCUMENTS AND THEIR APPLICABILITY TO EXERCISE TYPES  
19 AND AUDIENCES.

Document	Exercise Type	Audience
Exercise Plan	TTX, Drill, FTX	All Participants
Exercise Events List	Drill, FTX, Complex TTX (Optional)	Controllers, Evaluators, and Actors
Exercise Evaluation Guides	TTX, Drill, FTX	Evaluators
Situation Manual	TTX	All Participants
Facilitator Guide	TTX	Facilitators
Multimedia	TTX	All Participants

Presentation		
Controller and Evaluator Handbook	Drill, FTX	Controllers and Evaluators
Participant Feedback Form	All Exercises	All Participants

1

2 3.79 Exercise participants and players might also benefit from the distribution of a pamphlet that  
3 condenses the key information in the exercise plan into one or two pages, such as the scope of the  
4 exercise, the main events of the exercise and the date and location. An example player handout is  
5 provided in Annex VII.

6

DRAFT FOR MS COMMENT

## 4. CONDUCT OF EXERCISES

4.1 Conducting an exercise consists of four primary elements: setting up the exercise and preparing for exercise safety, providing exercise briefings, exercise play and holding debriefing activities. The exercise play should follow the schedule outlined in the exercise plan developed during the exercise preparation.

### SETTING UP THE EXERCISE AND PREPARING FOR EXERCISE SAFETY

4.2 Well-executed exercise set-up is an important component of a successful exercise. This includes adequate set-up time, which allows planners to prepare a venue for an exercise and address any unexpected problems. Planners should visit the exercise venue as many days prior to the event as necessary to ensure proper exercise set-up.

4.3 Exercise set-up may include but is not limited to the following tasks:

- a) Arranging class rooms or conference rooms;
- b) Marking the appropriate exercise areas, e.g., play, evaluation and observer areas;
- c) Inspecting the venue for safety concerns;
- d) Equipment check, e.g. checking communications equipment and detection instruments; and
- e) Stockpiling water and food for participants.

4.4 Exercise safety should always take priority over exercise events. All controllers should be assigned responsibilities for participant safety, and any safety concerns should be immediately reported to the Controller. In addition, any participant should be permitted to stop exercise play for safety concerns. Safety officers and participants should also remain vigilant for any violations of safety policies throughout an exercise. The Controller should determine if a real-world emergency warrants a pause in exercise play and when exercise play can be resumed.

### **Radiation Safety**

4.5 When an exercise involves the use of radiation sources, a qualified radiation protection expert should ensure that the control, use and storage of those sources is in compliance with local and national regulatory requirements. The radiation protection expert may choose to appoint a certified radiation protection officer to be responsible for radiation safety. The use of low activity sources capable of providing threshold radiation detection alarms should be considered for the purpose of triggering detection alarms during the exercise as needed.

1 4.6 Handling of the sources should be strictly limited to qualified staff and should be in accordance  
2 to an approved radiation protection plan for the exercise.

### 3 **Weapons Plan**

4 4.7 All operations-based exercises that involve weapons should have a written weapons plan and  
5 safety policy that is in accordance with applicable laws and regulations.

6 4.8 Positive, proactive measures should be taken to prevent interaction between weapons and  
7 exercise participants. These should include but are not limited to the following measures:

8 a) A review of weapons safety policies should be conducted before the start of an  
9 exercise.

10 b) A certified weapons safety officer should be designated whose sole responsibility is to  
11 ensure that no loaded firearm, ammunition or weapon capable of bodily harm are on  
12 the person of any exercise participant, observer, or facilitator. The weapons safety  
13 officer should individually inspect every exercise participant prior to the start of an  
14 exercise to ensure there are no loaded firearms, magazines, ammunition or weapons  
15 within their possession.

16 c) Only individuals with a legal authority to carry a firearm during the normal course of  
17 duty should be permitted to possess a firearm during an exercise, within a defined  
18 exercise conduct area. This firearm should be unloaded. These firearms should be  
19 clearly marked as inspected by the weapons safety officer with brightly colored tape on  
20 the stock or handle to indicate that they have been inspected and are unloaded.

21 d) Inert training weapons should be used instead of unloaded firearms where possible.  
22 Any firearms that are permitted to be carried by exercise participants should use of a  
23 breech safety.

### 24 **PROVIDING EXERCISE BRIEFINGS**

25 4.9 Exercise briefings provide necessary exercise-related information to all exercise participants  
26 and ensure exercise safety. It is important for the planning team to determine when to conduct these  
27 briefings (i.e. prior to, during or following the exercise play). Typical exercise briefings are discussed  
28 in the sub-sections to follow.

## 1 **Controller/Facilitator and Evaluator Briefing**

2 4.10 The briefing for controllers (or facilitators) and evaluators should begin with an exercise  
3 overview including the exercise location and key exercise areas, schedule of events, scenario,  
4 controller and evaluator responsibilities, instructions on completing evaluation and any other relevant  
5 information. Generally a lead controller provides this brief. An example controller/facilitator and  
6 evaluator briefing can be found in Annex VIII.

## 7 **Player Briefing**

8 4.11 The briefing for the players should include the appropriate and necessary information for  
9 players to understand their role and responsibilities during conduct of the exercise. This briefing also  
10 includes details regarding safety concerns, including, when applicable, weapons safety and radiation  
11 control. Procedures for stopping the exercise in the case of a legitimate emergency (e.g. fire or injury)  
12 should be covered during the safety briefing. The safety officer or controller should provide this brief.  
13 An example player briefing can be found in Annex IX.

## 14 **Media Briefing**

15 4.12 The media briefing should use precise, plain and clear language to communicate any  
16 information about the exercise or associated activities, to minimize the likelihood that the information  
17 will be misunderstood by the media or the general public. The general public may not have a detailed  
18 technical understanding of the actual hazards of radiation. Therefore, care should be taken to explain  
19 safety procedures and avoid causing panic when communicating about exercise activities, including  
20 the use of radioactive materials during the exercise. A designated media spokesperson would typically  
21 provide this briefing. An example media briefing can be found in Annex X.

## 22 **Observer Briefing**

23 4.13 The observer briefing should include rules, observation areas, timings and locations to  
24 communicate to observers how they are expected to observe and support the exercise. An example  
25 observer briefing can be found in Annex XI.

## 26 **CONDUCTING EXERCISE PLAY**

27 4.14 In a discussion-based exercise, the facilitator generally presents a multimedia presentation,  
28 which describes the scenario and any relevant background information, as described in paragraphs  
29 3.80-3.83. The facilitator also leads the discussion, introduces spokespersons, poses questions to the  
30 audience and ensures that the schedule remains on track.

1 4.15 In an operations-based exercise, once all participants are appropriately located, the controller  
2 clearly communicates to all participants the start of exercise play. The controller then monitors the  
3 progression through the exercise event list. The controller should concurrently supervise other  
4 exercise participants in order to ensure a safe and secure exercise environment. During exercise play  
5 each evaluator should use the evaluation criteria to record performance. At the end of the exercise  
6 event list, the controller should clearly communicate the end of exercise play.

## 7 HOLDING DEBRIEFING ACTIVITIES

8 4.16 Debriefing activities following the conclusion of the exercise should be focused on gathering  
9 information that can be used to evaluate the exercise. These debriefing activities could involve  
10 observations by evaluators recorded in completed exercise evaluation guides as well as feedback from  
11 participants and controllers. Debriefing activities are often structured as facilitated discussions in  
12 order to ensure that the debriefing remains brief and constructive.

### 13 **Participant Exercise Debriefing**

14 4.17 A participant exercise debriefing provides participants with the opportunity to provide feedback  
15 on their own performance, successes and areas for improvement. This type of debriefing also allows  
16 evaluators to seek clarification regarding player actions and decision-making processes and to  
17 consider the overall exercise outcomes. The information gathered during a participant exercise  
18 debriefing can be used in the exercise report as well as to improve design and conduct of future  
19 exercises. Finally, participants in participant exercise debriefings are able learn about other parts of  
20 the exercise that they were not involved in.

21 4.18 Participant feedback forms provide players with the opportunity to comment candidly on  
22 exercise activities and exercise design. Such feedback forms can also be distributed as a useful way  
23 to collect additional data on the exercise. An example participant feedback form is provided as Annex  
24 V.

25 4.19 An observer feedback form could also be provided to observers by the controller. An example  
26 observer feedback form is provided as Annex XII.

27 4.20 A checklist for the exercise debriefing is provided as Annex XIII.

### 28 **Controller/Facilitator and Evaluator Debriefing**

29 4.21 A controller/facilitator and evaluator debriefing is a formal forum for planners,  
30 controllers/facilitators and evaluators to review and provide feedback on the exercise. During this  
31 debriefing, controllers and evaluators provide an overview of their observations on the exercise and  
32 discuss strengths and areas for improvement. This discussion can provide content for the draft

1 exercise report. The controller/facilitator and evaluator debriefing may occur shortly after the end of  
2 the exercise, but is typically held no later than a few days after the exercise.

3 4.22 At the conclusion of these debriefings, the exercise planning team should begin the final part of  
4 the exercise, the evaluation process.

5

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## 5. EVALUATION

### OVERVIEW

5.1 Through exercise evaluation, organizations assess the capabilities needed to accomplish the exercise objectives. Specifically, during evaluation, exercise planners and evaluators analyse collected data to identify strengths and areas for improvement and recommend options and actions to address areas in need of improvement.

5.2 The exercise planning team could organize a training course for evaluators. Conducting evaluator training prior to the beginning of an exercise can help create a consistent approach to evaluation by ensuring that exercise evaluators have a shared understanding of the key data to be collected and how that data will contribute to the evaluation of the exercise. Evaluator training might include: general information about the exercise, including scope, objectives, capabilities, scenario and schedule; relevant evaluator documentation (e.g., handbooks, instructions, evaluation tools); and plans, policies, procedures, agreements or other information that are relevant to the exercise. Evaluator training can also provide an opportunity for the lead evaluator or exercise director to provide guidance to evaluators on observing exercise discussion or operations and on the criteria for the inclusion of data in the final exercise analysis.

### GUIDANCE FOR EVALUATOR OBSERVATIONS

5.3 A well-executed exercise evaluation is fair, consistent, objective and transparent. Evaluators should use exercise evaluation guides and take detailed observation notes. They should focus their observations on the tasks listed for each capability and activity. These observations should be fact-based and tied to the established evaluation criteria. Observations might also include:

- a) The identification of good practices;
- b) Notes on how the task was or was not met;
- c) Any pertinent decisions made during the exercise and information gathered to make decisions;
- d) Resources used during the exercise;
- e) Plans, policies, procedures or legislative authorities used or implemented during the exercise;  
and
- f) Any other factors contributing to the results.

5.4 Observation notes should also include quantitative or qualitative assessments of whether and how the evaluation criteria were met, and if a rating system is used, such as that described in

1 paragraphs 3.64-3.65, the assigned rating for an observation. Evaluators should also note if an  
2 obvious cause or underlying reason resulted in players not succeeding in an activity or a task.

3 5.5 The methods for exercise observations and data collection can differ between discussion-based  
4 exercises and operations-based exercises. Discussion-based exercises often focus on issues involving  
5 plans, policies, and procedures. Consequently, observations of these exercises may consist of an  
6 evaluator or a note-taker recording data from participant discussions using an exercise evaluation  
7 guide.

8 5.6 In contrast, operations-based exercises focus on issues affecting the operational execution of  
9 capabilities and tasks. During operations-based exercises, evaluators collect and record participant  
10 actions. This data forms the analytical basis for determining if tasks were successfully demonstrated.

11 5.7 Evaluators should refrain from reaching a final assessment regarding the performance during  
12 the exercise until after exercise play is completed. Additional data sources for evaluators might  
13 include face to face interviews, participant comments throughout the exercise and participant  
14 feedback forms. Evaluators could also consider that there may be more than one correct answer to  
15 questions posed by facilitators or observed actions.

16 5.8 Finally, the relevant evaluation criteria should be communicated to individual participants, and  
17 participants should be made aware that the final exercise evaluations may be communicated to  
18 participating organizations in order to share good practices and/or identify areas for improvement.

## 19 ANALYSIS OF EVALUATOR OBSERVATIONS

20 5.9 The goal of analysing the observations of the evaluators is to evaluate the ability of exercise  
21 participants to perform activities and tasks during the exercise and to determine if the exercise  
22 objectives were met and thus to rate the capability. During analysis, the evaluation team should  
23 consolidate the data and observations collected during the exercise. Additionally, the evaluation team  
24 should take notes on the course of exercise play as well as observed strengths and areas for  
25 improvement. This data helps to provide the evaluators with insights during the analysis stage  
26 regarding not only what happened during the exercise, but also the reasons. Evaluators should  
27 consider participant performance against the evaluation criteria in order to determine their ability to  
28 perform tasks during the exercise.

29 5.10 When completing the analysis, evaluators should consider the following questions:

- 30 a) Did the evaluation of the discussion or activities suggest that tasks were executed in a matter  
31 that leads to the completion of the defined tasks being evaluated? If not, what was the impact  
32 or consequence?

1 b) Do current plans, policies, and procedures support the tasks and activities exercised? Were  
2 participants familiar with these plans, policies and procedures?

3 5.11 Analysing events in this manner will help evaluators determine the underlying cause of issues,  
4 and the results of the evaluation could contribute to the development of plans for improvement  
5 following the exercise.

## 6 DEVELOPING THE EXERCISE REPORT

7 5.12 The exercise report summarizes key information related to the evaluation of the exercise. The  
8 length, format, and length of time needed to develop the report depend on the exercise type and scope,  
9 as determined during the exercise preparation process.

10 5.13 Exercise reports include basic exercise information, but the main focus of the report is the  
11 analysis of the exercise, including whether the capabilities being exercised were successfully  
12 executed. The report should include an overview of performance related to each exercise objective  
13 and the capabilities associated with it, as well as highlight good practices, strengths and areas for  
14 improvement. Summaries of the evaluated activities and related observations should also be included,  
15 and areas for improvement that require action should be highlighted. The exercise report should be  
16 drafted by the exercise planning team and the exercise evaluators, and approved by participating  
17 organizations.

18 5.14 An example of exercise report summaries and findings is included in Annex III, and an  
19 example exercise report template can be found in Annex IV.

## 20 IMPROVEMENT PLANNING

21 5.15 After the exercise evaluation is concluded and the exercise report is drafted,, participating  
22 organizations should reach consensus through agreed forums on identified strengths and areas for  
23 improvement<sup>4</sup> and develop a set of improvements that directly addresses gaps preventing them from  
24 successfully executing certain capabilities, as identified during the exercise. This information should  
25 be recorded in an improvement plan.

26 5.16 Corrective actions are actions that are intended to resolve gaps and shortcomings identified in  
27 exercises. In developing corrective actions, participating organizations should review and revise the  
28 draft exercise report to confirm that the issues identified by evaluators are valid and need resolution.  
29 As part of the improvement planning process, participating organizations should identify corrective

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<sup>4</sup> Areas for improvement are those areas that will continue to seriously impede capability performance if left unresolved.

1 actions to address areas for improvement identified as a result of the exercise and determine the  
2 organization with responsibility for those corrective actions.

3 5.17 Participating organizations could use the following questions to guide their discussion when  
4 developing corrective actions:

5 a) What was the point of the failure, which led to this evaluation (e.g. area of improvement)?

6 b) What changes need to be made to plans and procedures to improve performance?

7 c) What changes need to be made to organizational structures to improve performance?

8 d) What changes need to be made to management processes to improve performance?

9 e) What changes to equipment or resources are needed to improve performance?

10 f) What training or exercises are needed to improve performance?

11 g) What are the lessons identified for approaching similar problems in the future?

12

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**ANNEX I – EXERCISE PREPARATION, CONDUCT, AND EVALUATION  
PLANNING TOOL**

<b>Step</b>	<b>Task</b>	<b>Timeline</b>	<b>Responsible person</b>	<b>Status</b>
<b>Pre-initial Planning Meeting</b>	<ul style="list-style-type: none"> <li>• Form and invite an exercise planning team</li> <li>• Identify implementation considerations and constraints</li> <li>• Identify venue and date for Initial meeting</li> <li>• Develop Initial meeting agenda</li> </ul>			
<b>Initial Planning Meeting</b>	<ul style="list-style-type: none"> <li>• Review and incorporation of suggested improvement from previous exercises</li> <li>• Identify and develop exercise capabilities, scope, resources, objectives, , type, format, and consider an outline of scenario(s);               <ul style="list-style-type: none"> <li>○ Begin development of an exercise event list;</li> </ul> </li> <li>• Consider an evaluation approach for the exercise (e.g. exercise evaluators</li> </ul>			

	<p>and criteria)</p> <ul style="list-style-type: none"> <li>• Identify agencies/persons to start writing Draft Exercise Plan (as appropriate) <ul style="list-style-type: none"> <li>○ Staffing plan</li> <li>○ Safety plan (radiation protection, weapons)</li> <li>○ Media plan</li> <li>○ Visitor / observer plan</li> <li>○</li> </ul> </li> <li>• Establish exercise time line</li> <li>• Venue (facility room),</li> <li>• Identify participants' agency;</li> <li>• Identify participants' list</li> <li>• Identify needs/financial resources/logistics</li> <li>• Review action items and assignments</li> <li>• Develop Initial Planning Meeting Minutes</li> </ul>			
<p><b>Mid Term Planning Meeting(s)</b></p>	<ul style="list-style-type: none"> <li>• Assign personnel roles to develop specific sections of Exercise Plan <ul style="list-style-type: none"> <li>○ Safety</li> <li>○ Weapons</li> <li>○ Etc.</li> </ul> </li> </ul>			

	<ul style="list-style-type: none"> <li>• Review and approve Draft Exercise Plan;</li> <li>• Prepare Maps;</li> <li>• Assessment of venue;</li> <li>• Assign person to develop players' hand-out</li> <li>• Develop source management plan;</li> <li>• Develop Exercise key role persons <ul style="list-style-type: none"> <li>○ Exercise Director</li> <li>○ Controller</li> <li>○ Evaluator</li> <li>○ Facilitator</li> <li>○ Safety Officer</li> <li>Radiation protection expert</li> <li>○ Assign Documentation team/person</li> <li>○ Etc.</li> </ul> </li> <li>• Develop protocols for inviting observers and visitors</li> <li>• Develop an observer management plan;</li> <li>• Assign Facilitator(s)</li> <li>• Appointed agencies/persons to continue writing Draft Exercise Plan/specific documents to be presented at the Final</li> </ul>			
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	<p>Planning Meeting</p> <ul style="list-style-type: none"> <li>• Develop and approve the agenda for the Final Planning Meeting</li> <li>• Review Action Items and assignments</li> <li>• Develop Mid-Term Planning Meeting Minutes</li> </ul>			
<b>Final Planning Meeting</b>	<ul style="list-style-type: none"> <li>• Finalize and approve all documents</li> <li>• Determine communications requirements (internet, walkie talkie, phones)</li> <li>• Finalize all logistical details, communication devices, audio visual needs, and exercise</li> <li>• Equipment (dosimeters, radiation detectors, sources etc.), and maps and other props</li> <li>• Receive approvals for source handling, storage, transport, and security</li> <li>• Finalize media communications plan</li> <li>• Finalize the visitor (VIP) arrangements</li> <li>• Develop and finalize weapons policy</li> </ul>			

	<ul style="list-style-type: none"> <li>• Finalize Exercise Plan <ul style="list-style-type: none"> <li>○ Finalize Facilitator/Controller and Evaluator guide</li> </ul> </li> <li>• Develop and finalize any required briefings and presentation materials <ul style="list-style-type: none"> <li>○ Determine printing requirements</li> </ul> </li> <li>• Finalize players handout</li> <li>• Plan and agree final logistical checks and finalize all contingency plans <ul style="list-style-type: none"> <li>○ Review food and water provisions and medical supplies</li> <li>○ Final confirmation of housing accommodations and transportation requirements for exercise planning team and participants</li> <li>○ Visit exercise site locations with the planning team</li> <li>○ Test all</li> </ul> </li> </ul>			
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	<p>communications requirements (internet, walkie talkie, phones)</p> <ul style="list-style-type: none"> <li>○ Confirm the availability of the exercise radiological sources</li> <li>○ Badging and identification</li> </ul> <ul style="list-style-type: none"> <li>● Review action items and assignments</li> <li>● Develop Final Planning Meeting Minutes</li> </ul>			
<p><b>Exercise Conduct</b></p>	<ul style="list-style-type: none"> <li>● Consider exercise walk through to check equipment, facilities, logistics, communications, etc. [as required]</li> <li>● Set up facilities</li> <li>● Deliver exercise briefings / training <ul style="list-style-type: none"> <li>○ Player</li> <li>○ Observer</li> <li>○ Media</li> <li>○ Evaluators / Controllers</li> <li>○ Weapons safety</li> </ul> </li> </ul>	<p>Prior to Day of Exercise</p> <p>Day(s) of Exercise</p>		

	<ul style="list-style-type: none"> <li>○ Radiation Safety</li> <li>• Distribute exercise materials to the exercise participants</li> <li>• Conduct exercise</li> <li>• Media interaction</li> <li>• Collect feedback from the participants</li> <li>• Conduct post-exercise debrief with participants</li> <li>• Documentation team / person completes the documentation</li> <li>• Provide final reminder/instructions to evaluators</li> </ul>			
<b>Evaluation</b>	<ul style="list-style-type: none"> <li>• Prior to deadline, send out reminder to evaluators to submit their inputs</li> <li>• Prepare exercise report</li> <li>• Review draft report with all participating organizations and agree to improvement actions</li> <li>• Finalize report</li> </ul>			

1 Note - This timeline provides a general example that will have to be tailored depending  
2 upon the exercise to be conducted.

3

1 **ANNEX II – EXAMPLE SCENARIO**

2 **Example scenario**

3 **Capability 1: Detection by Instrument**

4 **Objective 1: Assess and improve the Front Line Officer’s performance and**  
5 **identification of a radiation alarm according to their standard operating procedures**  
6 **(SOPs) and equipment operating procedures.**

7  
8 **Capability 2: Information Sharing and Communication**

9 **Objective 2: Participating agencies will receive, analyse, and disseminate information**  
10 **related to a threat caused by nuclear or other radiological material out of regulatory**  
11 **control according to their standard operating procedure.**

12  
13 On [date] at [time], [agency] players will assemble at the [location]. During this time players  
14 will receive an exercise safety briefing and weapons check from the exercise staff and  
15 operational deployment instructions from the player group that organized the wide area  
16 search. Players will be required to organize and execute tactical operations including site  
17 entry and interdiction, as deemed appropriate by the exercise format. At [time] hours the  
18 exercise will end and all exercise play will stop. At [date] hours players and exercise staff  
19 will participate in an exercise debrief at the [specified venue].

20  
21 *Scenario Summary:* There are indications that [Location] may be the intended target of a  
22 nuclear or radiological event. [Agency] and [agency] must work together, and in  
23 collaboration with several other agencies to address the threat.

24  
25 *Scenario Start:* On [date] at [time], operational information will be propagated by the  
26 [agency]. Following the release of the information the [agency] will [enter information  
27 regarding next steps in the scenario to be followed in accordance with established plans and

1 procedures regarding information dissemination and deployment of nuclear detection  
2 teams/assets.]

3 Inject 1: An informant informs local police that an organized criminal group has successfully  
4 acquired two radiotherapy devices stolen from a hospital containing Cesium-137 in a  
5 neighboring country. The information indicates that an organized criminal group may be  
6 planning an attack.

7 Following the release of this information, players will determine appropriate actions

8 Expected actions: Determine threat level; disseminate information to competent  
9 authorities; and allocate resources in accordance with national response plan

10 Inject 2: At a major border crossing, a Front Line Officer's radiation detection portal alarm is  
11 triggered, indicating the presence of a radiation source.

12 Expected actions: Officer conducts secondary inspection and utilizes technical expert  
13 support.

14 Inject 3: Remote technical expert support confirms the presence of Cesium-137. Expert  
15 support arrives on scene, localizes, and secures the material.

16 Expected actions: Officers detain suspect, begin initial investigation into origin and  
17 motive.

18 Inject 4: Intelligence analysts link the identified source from the border with the information  
19 provided by the informant. Analysts believe there may be a second radioactive source already  
20 in the country.

21 Expected Action: Law enforcement and border authorities are put on high alert and  
22 conducting a nationwide search for another possible stolen radioactive source.

23

1                                   **ANNEX III – EXAMPLE EXERCISE REPORT ASSESSMENT**

2                                   **Example: Exercise Report Assessment**

3           Below are some samples of the activity evaluations and observations, which include  
4 analysis of the field operations conducted and potential recommendations for future  
5 improvement.

6    **Capability: Detect by Instrument**

7    **Activity:** Confirm amount and/or nature of nuclear or other radioactive material.

8    **Observation: Strength.** [Agencies] demonstrated proficiency in communicating with expert  
9 support assets.

10 **Analysis:** The [agencies] proficiently demonstrated the ability to properly document/record  
11 on appropriate request for expert support, send/receive spectrum information, communicate  
12 with secondary inspection on a 24 hour / 7 days a week basis, discuss the spectrum file/record  
13 with secondary inspection, and the ability to discuss strategies for appropriate adjudication.

14 **Recommendations:** None.

15 **Capability: Information Sharing and Communications**

16 **Activity:** Communicate to competent authorities details of nuclear security event

17 **Observation: Area for Improvement.** All pertinent participating agencies were not  
18 incorporated into the information sharing environment.

19 **Analysis:** Inside the operations center the incident commanders placed a very heavy  
20 emphasis on obtaining valid and verified intelligence and information. Not all of the  
21 appropriate agencies were present in the operations center, and there was a gap in  
22 disseminating information regarding the nuclear security event.

23 **Recommendations:**

- 24 1. Develop a strong relationship among the participating agencies who will be involved in a  
25 response of this nature.

- 1 2. Consider hosting an information sharing and intelligence seminar or workshop which
- 2 would raise awareness for agencies not typically in the intelligence/information sharing
- 3 environment.

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## ANNEX IV – EXERCISE PLAN TEMPLATE

### 2 A. EXERCISE SUMMARY

Exercise Name	[Exercise Name]
Exercise Dates	[Exercise Date]
Purpose	This [operations-based or discussion based] exercise provides participants the opportunity to [state general goal of the exercise].
Scope	This is an [operations-based or discussion based] exercise, planned for [duration in hours] at the [location]. Exercise play is limited to the participating agencies.
Objectives	[Insert objectives:]
Capabilities	[Insert capabilities:]
Scenario	[Insert short description of the exercise scenario].
Lead Agency	[List the lead agencies and/or organization who is running the exercise.]
Participating Organizations	[Insert organizations]
Point of Contact	[List exercise director and/or primary point of contact information]

## B. EXERCISE OBJECTIVES AND CAPABILITIES

The objectives in the following Table describe the expected outcomes for the exercise. The objectives directly link to capabilities.

Exercise Objectives	Capability
Objective 1	Capability 1
Objective 2	Capability 2

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FOR EXERCISE USE ONLY

C. PARTICIPANT ROLES AND RESPONSIBILITIES

<b>Type of Role</b>	<b>Description</b>
<b>Exercise director</b>	<ul style="list-style-type: none"><li>• Oversees all exercise activities</li></ul>
<b>Exercise planning team</b>	<ul style="list-style-type: none"><li>• Plans and designs the exercise</li><li>• Develops evaluation guidelines</li><li>• Members of the planning team sometimes participate during the actual exercise</li></ul>
<b>Controllers / Facilitators</b>	<ul style="list-style-type: none"><li>• Guide exercise play</li><li>• Discussion-based exercises: Facilitators ensure that participant discussions remain focused on the exercise objectives and that all issues and objectives are explored thoroughly within the available time</li><li>• Field exercises: Controllers plan and manage exercise play, set up and operate the exercise incident site, give key data to players, and possibly prompt or initiate certain player actions</li><li>• Monitors for safety considerations</li><li>• For large exercises, there may be a team of controllers and facilitators. These teams are generally guided by a lead controller/facilitator</li></ul>
<b>Evaluators</b>	<ul style="list-style-type: none"><li>• Perform evaluations based on established evaluation guidelines and record key observation of the players actions</li><li>• Have expertise in the expected actions of players and plans</li></ul>

<b>Type of Role</b>	<b>Description</b>
	<ul style="list-style-type: none"> <li>• Should not interfere with exercise play.</li> </ul>
<b>Players</b>	<ul style="list-style-type: none"> <li>• Actively take part in an exercise by either discussing or performing their roles and responsibilities</li> </ul>
<b>Simulators or Controlled Players</b>	<ul style="list-style-type: none"> <li>• Perform the roles of organizations or individuals within that organization that are not actually participating in the exercise to drive realistic exercise play</li> </ul>
<b>Role player</b>	<ul style="list-style-type: none"> <li>• Acts out specific roles, such as adversaries, witnesses, and victims, in order to add realism to an exercise</li> <li>• Role players are not simulators</li> </ul>
<b>Media Spokesperson</b>	<ul style="list-style-type: none"> <li>• Serves as point of contact for coordination of all the media interactions</li> <li>• Provides official statements</li> </ul>
<b>Observers</b>	<ul style="list-style-type: none"> <li>• Attend an exercise to observe and learn from the event</li> <li>• Be prepared to provide feedback if requested</li> <li>• Do not interfere with the exercise flow</li> </ul>
<b>Safety Officer</b>	<ul style="list-style-type: none"> <li>• Monitors an operations based exercise for safety and has the authority to stop exercise play</li> <li>• Provides the safety brief</li> <li>• Receives reports on safety concerns from participants.</li> </ul>
<b>Radiation protection expert</b>	<ul style="list-style-type: none"> <li>• Ensures the safe and secure handling of the nuclear and other radioactive materials in accordance with national regulations</li> </ul>

Type of Role	Description
<b>Rapporteur</b>	<ul style="list-style-type: none"> <li>• Maintains records of planning meetings</li> <li>• Responsible for maintaining exercise log</li> <li>• Support the planning team by coordinating and consolidating information collected by other exercise staff during exercise play and debriefs</li> </ul>

#### D. EXERCISE STRUCTURE

[Discussion-Based Exercised Exercises ONLY] This exercise will be a facilitated exercise. The scenario will be presented during the discussion with the associated injects. Participants should respond to the scenarios according to their procedures. Participants will respond to the following:

- Scenario 1
  - Inject 1
  - Inject 2

Upon the completion of each inject, participants review the situation and engage in facilitated discussions of appropriate response issues.

[Note: The structures of operations-based exercises are normally more complex and therefore, the specific actions are captured in the exercise event list in Annex IV.]

#### E. EXERCISE GUIDELINES

This exercise will be held in an open, low-stress, no-fault environment. Varying viewpoints, even disagreements, are expected.

Respond to the scenario using knowledge of current plans and capabilities (i.e., use only existing assets) and insights derived from training.

Decisions are not precedent setting and may not reflect your organization's final position on a given issue. This exercise is an opportunity to discuss and present multiple options and possible solutions.

Issue identification is not as valuable as suggestions and recommended actions that could improve detection and response efforts. Problem-solving efforts should be the focus.

## F. EXERCISE ASSUMPTIONS AND ARTIFICIALITIES

In any exercise, assumptions and artificialities may be necessary to complete play in the time allotted and/or account for logistical limitations. Exercise participants should accept that assumptions and artificialities are inherent in any exercise, and should not allow these considerations to negatively affect their participation.

During this exercise, the following apply:

- The exercise is conducted in a no-fault learning environment wherein capabilities, plans, systems, and processes will be evaluated;
- Scenarios are plausible and events occur as presented; and
- Every effort has been made to avoid political and cultural sensitivities.

## G. COMMUNICATIONS PLAN

[Discussion-based exercises]

In some cases email, telephones or other means may be used to exchange information. However, most of the communication is done in a facilitated discussion based format in which all participants hear the discussion at the same time.

[Operations-based exercises]

Either normal day-to-day communication methods may be used or specifically dedicated communication means can be used. In some cases special permissions are needed for radio communication.

All players and exercise staff will be briefed on the communication plan prior to the start of the exercise and provided a communications directory, such as a telephone, radio, fax, and email list. Communication with external agencies not participating in exercise play, will require approval from the exercise controller.

## H. EXERCISE CONTROL

### **Exercise Control Overview**

Exercise control maintains exercise scope, pace, and integrity during exercise conduct. The control structure in a well-developed exercise ensures that exercise play assesses objectives in a coordinated fashion at all levels, and at all locations for the duration of the exercise.

### **Controller Documentation**

The controller package consists of the Exercise Plan, badges, and other exercise tools (e.g., Activity Log, Exercise Event List) as necessary. Controllers must bring their packages and any additional professional materials specific to their assigned exercise activities.

### **Managing Exercise Events**

Because the exercise is of limited duration and scope, certain details may be simulated. Venue controllers are responsible for providing players with the physical description of what would fully occur at the incident sites and surrounding areas.

### **Scenario Tools**

The Exercise Event List in Section N of Annex IV outlines benchmarks and injects that drive exercise play. It also details realistic input to exercise players, as well as information expected to emanate from simulated organizations (i.e., nonparticipating organizations or

individuals who usually would respond to the situation). The Exercise Event List includes the following:

- Date and Time
- Timeline
- Location
- Scenario Description
- Injects
- Expected action by players
- Supplementary material
- Required resources

### **Exercise Control Structure**

#### **Controller Instructions**

Control of the exercise is accomplished through an exercise control structure. The control structure is the framework that allows controllers to communicate and coordinate with other controllers at other exercise venues and to deliver and track exercise information (Please see the Staffing Plan, Annex IV Section K).

#### **Before the Exercise**

- Review appropriate emergency plans, procedures, and protocols.
- Review appropriate exercise package materials, including the objectives, capabilities, scenario, injects, safety and security plans, and controller instructions.
- Attend required briefings.
- Report to the exercise check-in location at the time designated in the exercise schedule, meet with the exercise staff.

- Be at the appropriate location at least as instructed in the controller evaluator briefing before the exercise starts.
- Obtain, locate and test necessary communications equipment.

### **During the Exercise**

- Wear controller identification items, if provided (e.g., badge, vests) and as directed (some may not have it visible until requested by exercise players).
- Avoid personal conversations with exercise players.
- If you have been given injects, deliver them to appropriate players at the time indicated in the Events List (or as directed by the Exercise Director). **Note:** If the information depends on some action to be taken by the player, do not deliver the inject until the player has earned the information by successfully accomplishing the required action.
- When you deliver an inject, notify the Lead Controller and note the time that you delivered the inject and player actions.
- Receive and record exercise information from players that would be directed to simulated organizations.
- Observe and record exercise artificialities that interfere with exercise realism. If exercise artificialities interfere with exercise play, report it to the Exercise Director.
- Begin and end all exercise communications with the statement, [**“This is an exercise”**].
- Do not prompt players regarding what a specific response should be, unless an inject directs you to do so.
- Ensure that all observers and media personnel stay out of the exercise activity area. If you need assistance, notify the Exercise Director.
- Do not give information to players about scenario event progress or other participants’ methods of problem resolution. Players are expected to obtain information through their own resources.

## After the Exercise

- All controllers are expected to attend the exercise debrief and take notes on findings identified by exercise players. Some controllers may be leading the debrief at their respective area of play with provided instructions. Before the debrief, do not discuss specific issues or problems with exercise players.
- At exercise termination, summarize your notes and prepare for the controller and evaluator debriefing. Have your summary ready for the Exercise Director.

## Controller Responsibilities

The following table details controller responsibilities.

<b>Controller Responsibilities</b>	
<b>Exercise Director</b>	
	<ul style="list-style-type: none"><li>• Oversees all exercise functions</li><li>• Oversees and remains in contact with controllers and evaluators</li><li>• Oversees setup and cleanup of exercise, and positioning of controllers and evaluators</li></ul>
<b>Lead Controller</b>	
	<ul style="list-style-type: none"><li>• Monitors exercise progress</li><li>• Coordinates decisions regarding deviations or significant changes to the scenario</li><li>• Monitors controller actions and ensures implementation of designed or modified actions at the appropriate time</li><li>• Debriefs controllers and evaluators after the exercise</li><li>• Oversees setup and takedown of the exercise</li></ul>
<b>Safety Officer</b>	
	<ul style="list-style-type: none"><li>• Monitors exercise safety during exercise setup, conduct, and cleanup</li><li>• Receives any reports of safety concerns from other controllers or participants</li></ul>

## Controller Responsibilities

- Stops or suspends exercise conduct if a serious safety concern arises, if appropriate

### Radiation Protection Officer

- Ensures the safe and secure handling of the nuclear and other radioactive materials in accordance with national regulations

### Media Spokesperson

- Provides narration and explanation during exercise events, as needed
- Performs pre-exercise and post-exercise public and media affairs duties
- May act as media briefer and escort at exercise site

### Venue Controller

- Issues exercise materials to players
- Monitors exercise timeline for their area of conduct
- Provides input to players (i.e., injects) as described in Exercise Event List
- May serve as safety officer for his or her site
- Reports to Lead Controller any significant issues which would affect their venue and/or the overall exercise

### Simulation Cell (SimCell) Controller

- Role plays as nonparticipating organization(s) or individuals
- Monitors exercise timeline and controls the exercise through injects or other means
- Provides input to players (i.e., injects) as described in the Exercise Event List

## I. EXERCISE EVALUATION

Evaluators assess the exercise objectives and the capabilities in Exercise Evaluation Guides (EEGs). Participants will complete participant feedback forms at the end of the event to note initial findings. Exercise planners will use the feedback forms, evaluator findings and [facilitator observations] to compile the Exercise Report.

### **Evaluator role**

Evaluation provides an opportunity to assess performance of capabilities. Evaluation is accomplished by the following means:

- Observing the event and collecting supporting data;
- Analysing collected data to identify strengths and areas for improvement; and
- Reporting exercise outcomes in the Exercise Report.

The evaluator's primary duty is to document performance of capabilities. After the exercise, this information will be used to determine whether the exercise capabilities were effectively met and to identify strengths and areas for improvement

Remember that the evaluation must be based on facts, not perceptions or assumptions. Be prepared to provide evidence to substantiate the findings.

### **Evaluation Documentation**

Document the evaluation in writing and all documents that being used in the exercise should have on the top and bottom the word 'For Exercise Use Only'.

### **Evaluator Package**

The evaluator package contains the Exercise Plan, EEGs, and other items as necessary. Evaluators should bring the package to the exercise. They may reorganize the material so information that is critical to their specific assignment is readily accessible. Evaluators may bring additional professional materials specific to their assigned activities.

## Exercise Evaluation Guides

EEGs provide a consistent tool to guide exercise observation and data collection. EEGs are aligned to exercise objectives and capabilities, and list the relevant capability targets and tasks. Data collected in EEGs by each evaluator will be used to develop the analysis of capabilities in the Exercise Report.

Each evaluator is provided with an EEG for each capability that he/she is assigned to evaluate. The table of exercise objectives and criteria will be used as the template for the EEG.

Evaluators should complete all assigned EEGs and submit to the Lead Evaluator at the conclusion of the exercise. If required, the lead evaluator will separate the evaluators into groups.

### *Evaluation ratings*

Rating definitions in the Exercise Evaluation Guides (EEGs) for National TTX are as follows:

- **Strengths (S)**: Players completed the activities and tasks associated with the capability in a manner that achieved the objective(s) and did not negatively affect the performance of other activities.
- **Area of Improvement (AOI)**: Players completed or partially completed the activities and tasks associated with the capability in a manner where opportunities to enhance effectiveness and/or efficiency were observed.
- **Not Evaluated or Observed (NE/O)**: This means that the activities and tasks associated with the capability were not evaluated in this event.

The evaluators will indicate exercise objectives that do not apply by writing “not evaluated” against the relevant objective in the evaluation report.

### *Exercise Report*

The Lead Evaluator and Lead Controller compile all evaluator submissions into the first working draft of the Exercise Report.

The main focus of the Exercise Report is the analysis of capabilities. For each capability exercised, the report includes a rating of how the exercise participants performed, as well as strengths and areas for improvement.

## **Evaluator Instructions**

### **General**

Avoid personal conversations with players in regard to evaluation or performance. In some cases, evaluators may also be a site controller.

Do not give information to players about event progress or other participants' methods of problem resolution. Players are expected to obtain information through their own resources

### **Before the Exercise**

- Review appropriate plans, procedures, and protocols.
- Attend required evaluator training and other briefings.
- Review appropriate exercise materials, including the exercise schedule and evaluator instructions.
- Review the EEGs and other supporting materials for your area of responsibility to ensure that you have a thorough understanding of the capabilities, and tasks you are assigned to evaluate.
- Report to the exercise check-in location at the time designated in the exercise schedule, and meet with the exercise staff.
- Obtain or locate necessary communications equipment, and test it to ensure that you can communicate with other evaluators and the Exercise Director.

### **During the Exercise**

- Wear any evaluator identification items, if provided (e.g., badge, vest etc.).
- Stay in proximity to player decision-makers.

- Use EEGs to document performance relative to exercise objectives, capabilities, and tasks.

### **After the Exercise**

- Participate in the exercise debriefing, and take notes on findings identified by players. Before the exercise debriefing, do not discuss specific issues or problems with participants. After the exercise debriefing, summarize your notes and prepare for the Controller and Evaluator Debriefing
- Complete and submit your observations by the assigned due date. Observations may include some of the following examples:
  - How the task was or was not met;
  - Pertinent decisions made and information gathered to make decisions;
  - Requests made and how requests were handled;
  - Resources utilized;
  - Plans, policies, procedures used or implemented; and
  - Any other factors contributed to the results.

### **Placement and Monitoring**

Evaluators should be located so they can observe player actions and hear conversations without interfering with those activities. In certain conditions, more than one evaluator may be needed in a particular setting or area. For exercise site maps highlighting key locations, see Part O of Annex IV.

## J. SAFETY PLAN

### **Safety**

Exercise participant safety takes priority over exercise events. During the exercise, safety is everyone's responsibility.

The following general requirements apply to the exercise:

- A Safety Officer is responsible for participant safety; any safety concerns must be immediately reported to the Safety Officer. The Safety Officer will determine if a real-world emergency warrants a pause in exercise play and when exercise play can be resumed.
- For an emergency that requires assistance, use the phrase [**“real-world emergency.”**] The following procedures should be used in case of a real emergency during the exercise:
  - Anyone who observes a participant who is seriously ill or injured will immediately notify emergency services and the closest controller, and, within reason and training, render aid and immediately contact the Safety Officer.
  - Any exercise participant aware of a real emergency will initiate the [**“real-world emergency”**] broadcast and provide the Safety Officer with the location of the emergency and resources needed, if any.

### **Fire Safety**

Standard fire and safety regulations relevant to [Insert Country/Agency] will be followed during the exercise.

### **Radiation Safety**

The [Insert Country/Agency] is licensed to handle radioactive materials under [Insert regulation/law]. The license outlines the procedures for the safe use of radionuclides, dosimetry requirements and training for individuals working with radioactive materials.

The sources used for the exercise will be [Insert source type] sealed sources. The individual sources will be in the range of [Insert source activity]. The sources will be

shielded as necessary to reduce participant exposure. The sources will only be handled by authorized staff. Each staff member has substantial training and experience in the proper and safe use of radioactive material.

The plan is to have sources at the following locations:

[Insert location #1]

[Insert location #2]

The radiation levels from all sources will be checked in advance to ensure doses are maintained within limits allowed by [Insert country/agency regulations] as well as being As Low As Reasonably Achievable (ALARA).

### **Emergency Medical Services**

The lead agency will coordinate with local emergency medical services in the event of a real-world emergency. Emergency medical services should be discussed by the planning team. For international exercises medical insurance policy may be applied.

All exercise participants should be briefed how they will access emergency medical services if required.

### **Site Access Security**

If entry control is required for the exercise venue(s), the lead agency is responsible for arranging appropriate security measures. To prevent interruption of the exercise, access to exercise sites may be limited to exercise participants. In some cases there may not be a secure venue and the exercise will be conducted in a public space. Players should advise their venue's controller or evaluator of any unauthorized persons.

For "blind" and/or unannounced exercises special considerations should be taken for safety and security of exercise participants and general public.

### **Exercise Identification**

Exercise staff may be identified by badges, hats, and/or vests to clearly display exercise roles; additionally, uniform clothing may be worn to show agency affiliation. Table 2 shows a sample of identification items.

Group	Color
Exercise Directors	Red
Controllers/Evaluators	Green
Controllers/Actors	Blue
Observers/Visitors	Orange
Players, Uniformed	None
Players, Civilian Clothes	Shocking Pink
Media	Yellow

## Weapons Plan

It is the policy of [INSERT COUNTRY NAME] to ensure that every effort is made to provide a safe and secure environment during exercises for its participants, observers, control and evaluation staff members, volunteers, and the general public.

### *Weapons*

Exercise planners and controllers plan for control measures with regard to weapons, whether introduced as a simulated device during exercise play or used by law enforcement officers in their normal scope of duties. For the purpose of this policy, a weapon includes all firearms; knives; less-than-lethal weapons, tools, and devices; and any other object capable of causing bodily harm.

For the exercise the planning team should discuss and assess all weapons related safety issues and determined if all weapons will be live or cleared. This includes all exercise participants who will be involved in an exercise venue. No actors will be armed nor will any aggressive behaviour be intended or tolerated by any exercise participant. All planning efforts have been made to reduce to the greatest extent possible, any scenario for which weapons could be considered for use by law enforcement participants.

Qualified personnel who have legal authority to carry weapons (e.g., law enforcement, security, military) who are used to provide real-world perimeter security for the exercise and have no assigned or direct interaction with exercise participants may continue to carry loaded weapons as part of their normal scope of duty.

All other personnel with no legal authority to carry weapons will not bring, introduce, or have in their possession any weapon of any type in any area associated with the exercise. All exercise participants will be provided with a safety briefing that specifies provisions and policies regarding weapons before the exercise starts.

### *Explosives and Pyrotechnics*

There [is/is not] planned use of explosives or pyrotechnics. Simulated explosive devices, such as “flash bangs,” pyrotechnics, flares, smoke grenades, and so forth, will be handled and/or detonated only by qualified exercise staff members or bomb technicians. Eye and ear protection should be worn by any persons in the area of explosive devices.

### *Aggressive Behaviour*

Aggressive behaviour will not be tolerated during exercise conduct. Examples of aggressive behaviour may include excessive speeding; uncontrolled animals (e.g., K-9s, horses); use of defence products (e.g., mace, pepper spray, stun guns, tasers, batons); and forceful use of operational response equipment or tools (e.g., hose lines used at full stream on victims).

### **Exercise Notification**

[INSERT COUNTRY] supports exercise play that simulates real-life incidents. Public notification includes, but is not limited to, message signs, press releases, press conference, radio/press/social media announcements, and community hearings. Details of the exercise should not be communicated externally [including social media] without prior authorization from the Exercise Director.

It is the policy of [INSERT COUNTRY] to ensure that every effort is made to provide a safe and secure environment during exercises for its participants, observers, control and evaluation staff members, volunteers, and the general public.

K. STAFFING PLAN

**Staffing Plan Controller/Evaluator Assignments**

Name	Assignment	Contact #	Site location	Date/Time	EEG

DRAFT FOR MS COMMENT

## L. MEDIA PLAN

The purpose of the Media Plan is to provide the public and interested organizations with relevant information concerning the exercise. The Exercise Planning Team should discuss and agree on the instruments that will be used to inform the public.

Generally press releases, press-conferences (periodical and non-periodical), social media, web page, field reports, established press-center etc. may be used to inform the public during the exercise.

The media plan will identify those media representatives approved to participate in coverage of the exercise. Before the exercise begins, media will be provided with a briefing that will cover all relevant issues related to the exercise (scenario, agenda, safety etc.). Media will be escorted in permitted areas for filming and/or interviewing in order to not disturb the exercise conduct, and will be asked to follow all instructions from the exercise staff (controllers, safety officers etc.). Special considerations may be applied for filming the exercise (restricted areas for filming, blurring faces of the participants etc.).

For inter-agency exercises a single Media Spokesperson may be designated. The Media Spokesperson will provide media official statements on a periodical basis (i.e. hourly, daily etc. - agreed by the Exercise Planning Team).

At the end of the exercise a nominated individual may attend an official final interview/press conference to inform public on the results and to answer questions.

M. EXERCISE ACTIVITY LOG

<b>Time</b>	<b>Event/Activity Description</b>	<b>Controller / Evaluator Action</b>	<b>Related EEG</b>

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N. EXERCISE EVENT LIST

**INFORMATION RESTRICTED TO EXERCISE CONTROLLER AND EVALUATORS**

<b>Number (Action, Activity, Inject)</b>	<b>Exercise Day</b>	<b>Event Time</b>	<b>Inject Type: Active, Passive, Contingent, Informational</b>	<b>From</b>	<b>To</b>	<b>Short Description</b>	<b>Venue</b>	<b>Controller</b>	<b>Expected Action</b>
1	Insert Date								
2	Insert Date								
3	Insert Date								
4	Insert Date								

**Example of events and timeline management for a border crossing point exercise**

**INFORMATION RESTRICTED TO EXERCISE CONTROLLER AND EVALUATORS**

No	Injects	Expected action	Timeline ( i.e. 5 min / 10 min / 15 min / 20 min)												
1	Portal monitor triggers the alarm when a bus with passengers drives through	FLO stops and initiates secondary inspection	■												
2	Bag containing R/N material detected	FLO tries to identify the owner		■											
3	All passengers deny the ownership of the bag	FLO requests support			■										
4	Passengers start concerning on the forced stop. The call media to put pressure on FLO	FLO try to calm down and explain the situation				■									
5	TV team arrives at the border crossing point and starts broadcasting life	FLO try to control the situation					■								

6	Support teams arrive	FLO brief the support team and offer them support																	
7	Passengers start giving interviews to TV and blame the authorities	FLO and support team try to control and calm down the situation																	
8	It starts raining	1. FLO and support teams try to preserve evidences; 2. FLO take care of passengers																	
9	Forensics team arrives	Short briefing and starts collecting the evidences																	
10	While opening the bag containing R/N material contamination is suspected	1. Incident commander requests decontamination teams< 2. Support teams start measuring each passenger																	
11	Decontamination team arrives																		
12	2 passengers with higher dose rate measured are identified	All passengers request to be decontaminated																	

Controller 1,  
Location 1

Controller 2,  
Location 2

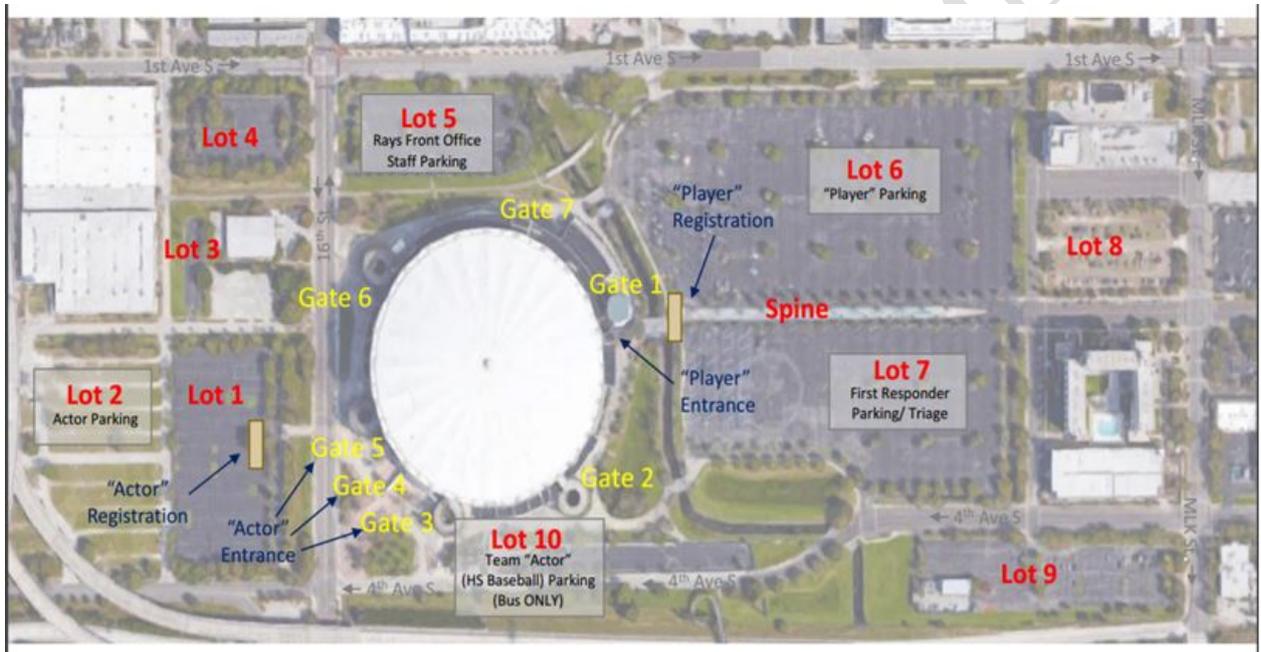
Controller 3,  
Location 2

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## O. EXERCISE SITE LAYOUT

This section should include site maps, diagrams or other information which would assist exercise staff or participants in understanding the exercise facility, locations or logistics required to conduct the exercise.

Sample Site Layout Map:



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P. EXERCISE EVALUATION GUIDE

**INFORMATION RESTRICTED TO EXERCISE CONTROLLER AND EVALUATORS**

<p><i>Exercise Name:</i></p> <p><i>Exercise Date:</i></p>	<p><i>Organization/Jurisdiction:</i></p>	<p><i>Venue:</i></p>
<p><b>1) Detection and Coordination</b></p>		
<p><b><i>Exercise Objective:</i> To assess the ability of the participating agencies in national coordination in detection and response of nuclear and radioactive material</b></p>		
<p><b><i>Capabilities:</i> Operational Detection and Response</b></p> <p>Establish and maintain a unified and coordinated operational structure and process that appropriately integrates all critical stakeholders and supports the execution of core capabilities.</p>		
<p><b>Activity 1: Deploy detection systems</b></p> <p><i>Task 1.1:</i> Did the managers of the participating organization plan and deploy RN detection systems corresponding to their SOPs?</p> <p><i>Task 1.2:</i> Does the SOP explain the technical support process and points of contact?</p> <p><i>Task 1.2:</i> Does the SOP designate an RN search area for secondary inspections?</p> <p><i>Task:</i> Does the SOP designate a safety area for long-term storage of high radiation alarms/alerts conveyance?</p> <p><b>Source(s):</b> [Insert name of plan, policy, procedure, or reference]</p>		

**Activity 2: Ensure equipment readiness**

*Task 2.1:* Did the officer confirm equipment is functioning correctly?

*Task 2.2:* Did the officer acknowledge the radiation alarm?

*Task 2.3:* Did the officer check supplemental information (e.g., manifest information)?

**Source(s):** [Insert name of plan, policy, procedure, or reference]

**Organizational Capability Target 3: Screen and search for nuclear and other radioactive material**

*Task 3.1:* Did the officer reset background for handheld adjacent to the secondary inspection area?

*Task 3.2:* Did the officer establish a safety zone using the Personal Radiation Detector (PRD), dose rate detector or Radionuclide Identification Device (RID) according to response plan and/or Standard Operating Procedure (SOP)?

*Task 3.3:* Did the officer isolate and identify sources using handheld equipment?

**Source(s):** [Insert name of plan, policy, procedure, or reference]

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Organizational Capability Target	Associated Tasks	Observation Notes and Explanation of Rating	Target Rating
[Insert Organizational Capability Target 1]	<ul style="list-style-type: none"> <li>[Insert Organizational Capability Target 1 Tasks]</li> </ul>		
[Insert Organizational Capability Target 2]	<ul style="list-style-type: none"> <li>[Insert Organizational Capability Target 2 Tasks]</li> </ul>		
[Insert Organizational Capability Target 3 from page 1]	<ul style="list-style-type: none"> <li>[Insert Organizational Capability Target 3 Tasks from page 1]</li> </ul>		
<b>Final Capability Rating</b>			

DRAFT FOR MS COMMENT

Evaluator Name \_\_\_\_\_

Evaluator E-mail \_\_\_\_\_

Phone \_\_\_\_\_

### Ratings Key

S – Strength

AOI – Area of Improvement

NE/O – Not Evaluated

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## Ratings Definitions

<b>Strength (S)</b>	Players completed the activities and tasks associated with the capability in a manner that achieved the objective(s) and did not negatively affect the performance of other activities.
<b>Area of Improvement (AOI)</b>	Players completed or partially completed the activities and tasks associated with the capability in a manner where opportunities to enhance effectiveness and/or efficiency were observed.
<b>Not Evaluated (NE/O)</b>	The activities and tasks associated with the capability were not evaluated or observed in this event.

DRAFT FOR MSC COMMENT

<i>Exercise Name:</i>	<i>Organization/Jurisdiction:</i>	<i>Venue:</i>
<i>Exercise Date:</i>		
<b>2) Information Sharing</b>		
<i>Exercise Objective:</i> <b>Sharing of information related to trans-border crime according to agencies' SOPs</b>		
<i>Capabilities:</i> <b>Information sharing and communication</b>		
To assess the capability of border agency and relevant stakeholders in the execution of core capabilities.		
<b>Organizational Capability Target 1: Notify competent authorities of nuclear security event</b>		
<i>Task 1.1:</i> Did the managers of the participating organisation notify the competent authorities corresponding to their SOPs?		
<i>Task 1.2:</i> Does the SOP indicate the points of contacts?		
<i>Task 1.3:</i> Does the SOP explain the technical reachback process?		
<b>Source(s):</b> [Insert name of plan, policy, procedure, or reference]		
<b>Organizational Capability Target 2: Communication with stakeholders</b>		
<i>Task 2.1:</i> Did the officer communicate with the regulatory authority?		
<i>Task 2.2:</i> Did the officer response to the event immediately?		
<i>Task 2.3:</i> Did the officer communicate with other stakeholders?		
<b>Source(s):</b> [Insert name of plan, policy, procedure, or reference]		

**Organizational Capability Target 3: Communication with general public**

*Task 3.1:* Did the managers of the participating organisation communicate with the public on the event?

*Task 3.2:* Did the officer response to the event immediately?

*Task 3.3:* Did the officer directly communicate with general public?

**Source(s):** [Insert name of plan, policy, procedure, or reference]

DRAFT FOR MS COMMENT

Organizational Capability Target	Associated Tasks	Observation Notes and Explanation of Rating	Target Rating
[Insert Organizational Capability Target 1]	<ul style="list-style-type: none"> <li>[Insert Organizational Capability Target 1 Tasks]</li> </ul>		
[Insert Organizational Capability Target 2]	<ul style="list-style-type: none"> <li>[Insert Organizational Capability Target 2 Tasks]</li> </ul>		
[Insert Organizational Capability Target 3]	<ul style="list-style-type: none"> <li>[Insert Organizational Capability Target 3 Tasks]</li> </ul>		
<b>Final Capability Rating</b>			

1                   **ANNEX V – PARTICIPANT FEEDBACK FORM TEMPLATE**

2                                   **PARTICIPANT FEEDBACK FORM**

3   <EXERCISE NAME>

4   <DATE>

5  
6           NAME: \_\_\_\_\_

7           ORGANIZATION: \_\_\_\_\_

8           [OPTIONAL]

9  
10           Your feedback is very important to us. It can be helpful for us to develop future exercises  
11           and operational capability. Please be open and honest in your responses.

12           1) Were you familiar with the organisational procedures [insert reference to appropriate  
13           plans] relevant to this exercise?

14            Yes

15            No

16            If no, please explain: \_\_\_\_\_

17           2) Having considered your individual performance during the exercise, please provide up  
18           to three examples of:

19            Areas of Positive Performance (Strengths)

20            \_\_\_\_\_

21            \_\_\_\_\_

22            \_\_\_\_\_

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Areas of Improvement

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\_\_\_\_\_

\_\_\_\_\_

Additional Comments

\_\_\_\_\_

3) Having considered your own observations during the exercise please provide up to three examples of performance in regards to your TEAM or OTHER TEAMS performance. (Please state)

Areas of Positive Performance (Strengths)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Areas of Improvement

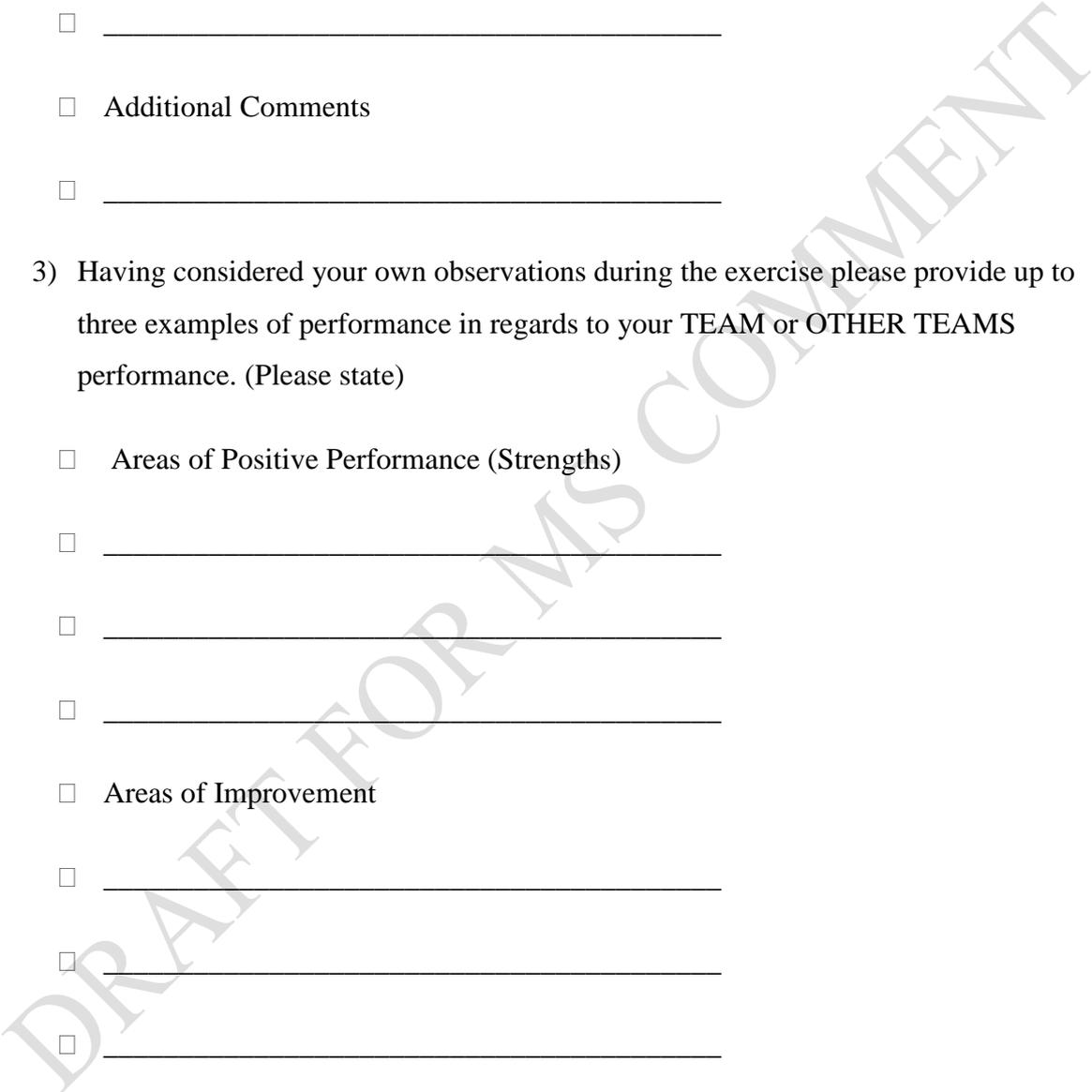
\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Additional Comments

\_\_\_\_\_



1 4) Having considered your own observations during the exercise please provide up to  
2 three examples of performance in regards to the planning, logistics and delivery of the  
3 exercise.

4  Areas of Positive Performance (Strengths)

5  \_\_\_\_\_

6  \_\_\_\_\_

7  \_\_\_\_\_

8  Areas of Improvement

9  \_\_\_\_\_

10  \_\_\_\_\_

11  \_\_\_\_\_

12  Additional Comments

13  \_\_\_\_\_

14 5) Any additional comments regarding the exercise:

15  \_\_\_\_\_

16 \_\_\_\_\_

17 \_\_\_\_\_

18

19 *Exercise planners may wish to consider additional specific questions suitable to their*  
20 *individual exercises (examples below):*

21 1) How would you rate the performance of the group/staff during this exercise?

22  Very good

23  Good

1       Acceptable

2       Poor

3       Very Poor

4      2) Were there any functions lacking in your group/staff during the exercise?

5       Yes

6       No

7       Partly

8      3) What rating would you give internal collaboration within the organization?

9       Very good

10      Good

11      Acceptable

12      Poor

13      Very Poor

14     4) What rating would you give for collaboration with other organizations during the  
15        exercise?

16      Very good

17      Good

18      Acceptable

19      Poor

20      Very Poor

21     5) How would you rate internal information dissemination?

22      Very good

1         Good

2         Acceptable

3         Poor

4         Very Poor

5                In your opinion, were enough resources available to respond to the situation?

6         Yes

7         No

8         Partly

9        6) Did the training and knowledge you received enable you to solve the task?

10        Yes

11        No

12        Partly

13       7) What are the three most important experiences from the exercise (lessons learned for  
14                authority) will you take with you?

15                Comments: \_\_\_\_\_

16       8) For any areas of improvement you identified above, please recommend a corrective  
17                action that could be taken by the players to fix the issue.

18                Comments: \_\_\_\_\_

19       9) Was the exercise well designed, organized, and directed?

20        Yes

21        No

22                Comments: \_\_\_\_\_

1 10) Do you feel that because of this exercise your agency will be better prepared to deal  
2 with the scenario that was exercised?

3  Yes

4  No

5  Partly

6 11) Please provide any additional notes or comments about your experience participating  
7 in this exercise.

8 Comments: \_\_\_\_\_

9

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1

## ANNEX VI – EXERCISE REPORT TEMPLATE

### 2 EXERCISE OVERVIEW

Exercise Name	[Exercise Name]
Exercise Dates	[Exercise Date]
Purpose	This [operations-based or discussion based] exercise provides participants the opportunity to [state general goal of the exercise].
Scope	This is an [operations-based or discussion based] exercise, planned for [duration in hours] at the [location]. Exercise play is limited to the participating agencies.
Objectives	[Insert objectives:]
Capabilities	[Insert capabilities:]
Scenario	[Insert short description of the exercise scenario].
Lead Agency	[List the lead agencies and/or organization who is running the exercise.]
Participating Organizations	[Insert organizations]
Point of Contact	[List exercise director and/or primary point of contact information]
Exercise Name	[Exercise Name]
Exercise Dates	[Exercise Date]

Purpose	This [operations-based or discussion based] exercise provides participants the opportunity to [state general goal of the exercise].
Scope	This is an [operations-based or discussion based] exercise, planned for [duration in hours] at the [location]. Exercise play is limited to the participating agencies.
Objectives	[Insert objectives:]
Capabilities	[Insert capabilities:]
Scenario	[Insert short description of the exercise scenario].
Lead Agency	[List the lead agencies and/or organization who is running the exercise.]
Participating Organizations	[Insert organizations]
Point of Contact	[List exercise director and/or primary point of contact information]

1

2 **ANALYSIS OF CAPABILITIES**

3 The following sections provide an overview of the performance related to each exercise  
 4 objective and associated capability, highlighting strengths and areas of improvement.

5

6 **[Capability 1]**

7 The strengths and areas of improvement for each capability aligned to this objective are  
 8 described in this section.

9 **[Activity 1]**

10 **Strengths**

1 The [full or partial] capability level can be attributed to the following strengths:

2 *Strength 1:* [Observation statement]

3 *Strength 2:* [Observation statement]

#### 4 **Areas of Improvement**

5 The following areas require improvement to achieve the full capability level:

6 *Area of Improvement 1:* [Observation statement. This should clearly state the issue, gap, or  
7 development requirement]

8 *Recommendation 1:* [State the recommendation and/or suggested corrective action.]

9 *Reference:* [List any relevant plans, policies, procedures, regulations, or laws.]

10 *Analysis:* [Provide a root cause analysis or summary of why the full capability level was not  
11 achieved.]

12 *Area of Improvement 2:* [Observation statement]

13 *Recommendation 2:* [State the recommendation and/or suggested corrective action.]

14 *Reference:* [List any relevant plans, policies, procedures, regulations, or laws.]

15 *Analysis:* [Provide a root cause analysis or summary of why the full capability level was not  
16 achieved.]

17

#### 18 **RECOMMENDATIONS AND IMPROVEMENT PLANNING**

19 This Improvement Plan(IP) has been developed specifically for [Organization] as a  
20 result of [Exercise Name] conducted on [date of exercise].

21

22

1

2

<b>Capability</b>	<b>Area of Improvement (AOI)</b>	<b>Recommendation</b>	<b>Corrective Action</b>	<b>Primary Responsible Organization</b>	<b>Organization Point of Contact</b>	<b>Start Date</b>	<b>Completion Date</b>
Capability [Capability Name]	[AOI 1]	[Recommendation 1]	[Corrective Action 1]				
		[Recommendation 2]	[Corrective Action 2]				
		[Recommendation 3]	[Corrective Action 3]				
	[AOI 2]	[Recommendation 1]	[Corrective Action 1]				
		[Recommendation 2]	[Corrective Action 2]				

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1 EXERCISE PARTICIPANTS

2

Participating Organizations	
<b>Agency</b>	
<b>Ministry</b>	
<b>International Organization</b>	

3

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## PLAYER INSTRUCTIONS

### Before The Exercise

- Review appropriate organizational plans, procedures and exercise support documents
- Please present yourself 30 minutes before exercise starts. Wear the appropriate uniform and identification items.

### During The Exercise

- Follow safety guidelines
- Conduct daily operations as normal. Do not simulate any activities unless directed to do so.
- Keep all activities logs and notes.
- Do not engage in personal conversation with controllers, evaluators, observers or media personal.
- Please ask the controller any doubt on this exercise.

### After The Exercise

- Provide copies of all logs, notes and other documentation to the evaluators.
- Take active participate in Participation Feedback Session
- To complete the Participant Feedback Form that will provided to you after the exercise.

## EXERCISE OBJECTIVES

- To assess the ability of the participating agencies in national coordination and international cooperation in detection of nuclear and radioactive material
- To assess the ability of the participating agencies in national coordination and international cooperation in response of nuclear and radioactive material
- Sharing of information related to trans-border crime according to agencies Standard Operating Procedure (SOP)
- To assess timeliness of information sharing of agencies
- To enhance **Front Line Officer (FLO)** capability to assess the nuclear security threat at the border

## [Insert Exercise Name] NUCLEAR SECURITY EXERCISE

Information Handout



[Insert Date]

[Insert Location]



IAEA  
International Atomic Energy Agency



## COMMUNICATIONS

- Players will communicate and coordinate only with participating entities.
- Players will use routine and in place agency communications systems during the exercise.
- Contact the simulation cell if you would normally communicate with an agency that is not playing in the exercise.

Exercise Director	Phone Number
Safety Controller	Phone number
Simulation Cell	Phone number

## QUESTIONS AND MEDIA RELATIONS

Any questions regarding exercise please refer to Exercise Director

### EXERCISE VENUE

[Venue 1]

[Venue2]

### EXERCISE SCHEDULE

[Insert Schedule]

## EXERCISE SAFETY

All Players, Controllers and Evaluators will be responsible for participant safety.

### SECURITY

- All exercise participants are required to wear badges during the exercise
- Site security policy must be followed strictly
- All radiological material will be controlled by the appropriate agency

### WEAPON POLICY

- [Insert weapons policy]

### EMERGENCIES SITUATION

- If any, please notify the nearest controller or evaluator for further action.

### ACCIDENTS AND INJURIES

- All players have a basic responsibility to act as safety officers.
- All to report safety concerns, unsafe acts or injuries to the **safety** controller.

## SCOPE OF THE EXERCISE

**[Insert Exercise Name]**

**To test the ability of the agencies, in terms of coordination, response nuclear and other radioactive materials.**

**[Purpose]**

**[Insert purpose.]**

**Participating Agency**

**[Insert participating agencies.]**

1           **ANNEX VIII – CONTROLLER/FACILITATOR AND EVALUATOR BRIEFING**

2  
3                           **CONTROLLER / FACILITATOR AND EVALUATOR BRIEFING**

4   WELCOME:

- 5           • [Insert welcome statement which would include the name of the exercise, dates,  
6           and duration.]
- 7           • On behalf of [sponsoring agency], thank you for participating in this important  
8           exercise.

9   SAFETY: [INSERT SAFETY STATEMENT.]

- 10          • Safety is everyone’s responsibility.
- 11          • Players initiate actions that will respond to and mitigate the simulated event.
- 12          • For safety reasons, obey the instructions given by the Safety Officer.
- 13          • For real emergencies EMS can be reached by *[Insert specific information]*
- 14          • To report emergencies use the phrase: **“This is a real emergency.”**
- 15          • Respond to the incident using appropriate procedures and protocols in a realistic  
16          manner.
- 17          • **[Insert weapons policy.]**
- 18          • **[Insert radiation safety guidelines.]**

19   ROLE:

- 20          • As a controller your role in this exercise will be to manage exercise play, setup  
21          and operate the exercise, and possibly prompt or initiate certain player actions.
- 22          • As an evaluator your role in this exercise will be to attend the exercise to  
23          evaluate the exercise based upon established evaluation guidelines and record  
24          the players actions.

1 EXERCISE OVERVIEW:

Exercise Schedule	[Discuss the major timelines of the exercise.] [Example: the exercise will run from 07:00 to 19:00 daily.]
Purpose	This [operations-based or discussion based] exercise provides participants the opportunity to [state general goal of the exercise].
Scope	This is an [operations-based or discussion based] exercise. Exercise play is limited to the participating agencies.
Objectives	[Insert objectives:]
Capabilities	[Insert capabilities if appropriate]
Scenario	[Insert short description of the exercise scenario if appropriate]
Lead Agency	[List the lead agencies and/or organization running the exercise.]
Participating Organizations	[Insert organizations]
Point of Contact	[List exercise director and/or primary point of contact information]

2

3 ASSUMPTIONS AND CONSTRAINTS:

4 • This exercise will be conducted in a no fault learning environment wherein  
5 systems and processes will be evaluated.

6 • Exercise simulation will be realistic and plausible and will contain sufficient  
7 detail from which to respond.

8 • Exercise players will react to information and situations as they are presented, in  
9 the same manner as if the exercise were a real event.

10 • [Insert additional assumptions and constraints as appropriate.]

1 ADDITIONAL CONSIDERATIONS

2 **Operational Security:**

3 This briefing contains exercise and operational material that must be safeguarded. (Properly  
4 marking information; maintaining control over information to ensure controllers and  
5 evaluators do not share event information with players that might impact the exercise conduct.

6 **Exercise Format:** Operations-based vs. discussion-based, timing, location, and ground rules

7 **Exercise Staffing:** Personnel/roles

- 8 • [List specific roles as appropriate.]  
9 • [Reference to staffing plan with names and contact information.]

10 **Documents:**

- 11 • Refer to / handout documents package, including the following:  
12 • Exercise Plan (ExPlan)  
13 • Events List  
14 • Staffing Plan  
15 • Exercise Evaluation Guides (EEGs)  
16 • Any relevant safety and security plans  
17 • List of any necessary supporting materials (handouts, reference documents, exercise play  
18 documents)

19 **Exercise Schedule:** Detailed timeline of events

- 20 • Overall exercise schedule  
21 • Including scenario injects and expected outcomes, as appropriate.  
22 • Do not share information from inject to the exercise players unless directed

23

1 **Exercise venue(s)**

- 2 • Maps/photos

3 **SPECIFIC CONTROLLER INSTRUCTIONS**

4 **Before the Exercise**

- 5 • Review appropriate emergency plans, procedures, and protocols

- 6 • Review appropriate exercise package materials, including the objectives, scenario, injects,  
7 safety and security plans, and controller instructions

- 8 • Attend required briefings

- 9 • Report to the exercise check-in location at the time designated in the exercise schedule,  
10 meet with the exercise staff, and present the Player Briefing if required

- 11 • Be at the appropriate location at least 30 minutes before the exercise starts

- 12 • Obtain, locate and test necessary communications equipment

13 **During the Exercise**

- 14 • Begin and end all exercise communications with the statement, [**“This is an exercise.”**]

- 15 • Wear controller identification items, if provided (e.g., badge, vest, cap etc.) and as  
16 directed (some may not have it visible until requested by exercise players)

- 17 • Avoid personal conversations with exercise players

- 18 • If you have been given injects, deliver them to appropriate players at the time indicated in  
19 the Events List (or as directed by the Exercise Director). Note: If additional injects are  
20 dependent upon specific actions, do not deliver the inject until the required action has  
21 been accomplished.

- 22 • When you deliver an inject, notify the Lead Controller [if required] and note the time that  
23 you delivered the inject and player actions.

- 1 • Receive and record exercise information from players that would be directed to  
2 nonparticipating organizations.
- 3 • Observe and record exercise artificialities that interfere with exercise realism. If exercise  
4 artificialities interfere with exercise play, report it to the Lead Controller.
- 5 • Ensure that all observers and media personnel stay out of the exercise activity area. If you  
6 need assistance, notify the Lead Controller or Exercise Director.
- 7 • Do not give information to players about scenario event progress or other participants'  
8 methods of problem resolution. Players are expected to obtain information through their  
9 own resources.

#### 10 **After the Exercise**

- 11 • All controllers are expected to attend the player exercise debrief. It is important that  
12 someone is identified to capture notes on findings identified by exercise players.
- 13 • Some controllers may be leading the player exercise debrief at their respective venue with  
14 provided instructions.
- 15 • Before the exercise debrief, do not discuss specific issues with exercise players.
- 16 • At exercise termination, summarize your notes and prepare for the Controller and  
17 Evaluator Debriefing.

#### 18 **SPECIFIC EVALUATOR INSTRUCTIONS**

- 19 • Evaluators should review their evaluation guides and any other relevant material prior  
20 to the exercise.
- 21 • The evaluators are responsible for recording observations during the exercise and  
22 evaluating the response in accordance with the exercise objectives and capabilities.
- 23 • The evaluators will not analyse or reveal their findings during the exercise [unless  
24 directed].
- 25 • Evaluators may ask questions to ensure that they completely understand their roles and  
26 responsibilities prior to the beginning of the exercise.

1 **General:**

- 2 • Evaluators should limit personal conversations with players.
- 3 • Evaluators should not give information to players about event progress or other  
4 participants' methods of problem resolution.
- 5 • Players are expected to obtain information through their own resources.

6 **Before the Exercise**

- 7 • Be sure that you attend the Safety briefing.
- 8 • Review appropriate plans, procedures, and exercise materials.
- 9 • Review the Exercise Evaluation Guides (EEGs) and other supporting materials for your  
10 area of responsibility to ensure that you have a thorough understanding of the capabilities  
11 and tasks you are assigned to evaluate.

12 **During the Exercise**

- 13 • Use Exercise Evaluation Guides (EEGs) to confirm that evaluation objectives are met.
- 14 • Note strengths as well as areas of improvement.
- 15 • Take notes concerning significant activities observed and discussion points, including the  
16 time they were initiated and/or completed.
- 17 • When more than one evaluator is assigned to an area, assign responsibilities to ensure  
18 detailed evaluation of player activities occurs.

19 **After the Exercise**

- 20 • Participate in the exercise de-brief.
- 21 • Be prepared to take notes on findings identified by players during the de-brief session.
- 22 • Avoid discussing specific issues with participants.
- 23 • Summarize, review, and organize all data collected.

1 **After the Exercise**

2 • Complete and submit all EEGs and other relevant documentation to designated personnel  
3 at the end of the exercise.

4 • Attend the Evaluator debrief meeting, typically chaired by the lead evaluator or exercise  
5 director..

6 The following guidance is recommended during an evaluation debrief:

7 • Establish the exercise timeline based on the evaluators' notes.

8 • Review each exercise objective.

9 • For each objective/capability, review the observations as collected by the evaluators.

10 • Use the grading scale to rate the performance against each objective/capability and record  
11 the observation from the evaluators' notes to clearly support the grading.

12

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1 **ANNEX IX – PLAYER BRIEFING**

2 WELCOME:

- 3 • [Insert welcome statement which would include the name of the exercise, dates,  
4 and duration.]
- 5 • On behalf of [sponsoring agency], thank you for participating in this important  
6 exercise.

7 SAFETY: [INSERT SAFETY STATEMENT.]

- 8 • Safety is everyone’s responsibility.
- 9 • Players initiate actions that will respond to and mitigate the simulated event.
- 10 • For safety reasons, obey the instructions given by the Safety Officer.
- 11 • For real emergencies EMS can be reached by [Insert specific information]
- 12 • To report emergencies use the phrase: **“This is a real emergency.”**
- 13 • Respond to the incident using appropriate procedures and protocols in a realistic  
14 manner.
- 15 • [Insert weapons policy.]
- 16 • [Insert radiation safety guidelines.]

17 ROLE:

- 18 • As a player your role in this exercise will be to respond to the simulated event  
19 and perform your regular roles and responsibilities during the exercise.

20 EXERCISE OVERVIEW:

Exercise  
Schedule

[Discuss the major timelines of the exercise.] [Example: the exercise will run from 07:00 to 19:00 daily.]

Purpose

This [operations-based or discussion based] exercise provides participants the opportunity to [state general goal of the exercise].

Scope	This is an [operations-based or discussion based] exercise. Exercise play is limited to the participating agencies.
Objectives	[Insert objectives:]
Capabilities	[Insert capabilities if appropriate]
Scenario	[Insert short description of the exercise scenario if appropriate]
Lead Agency	[List the lead agencies and/or organization running the exercise.]
Participating Organizations	[Insert organizations]
Point of Contact	[List exercise director and/or primary point of contact information]

1

2 ASSUMPTIONS AND CONSTRAINTS:

3 • This exercise will be conducted in a no fault learning environment wherein  
4 systems and processes will be evaluated.

5 • Exercise simulation will be realistic and plausible and will contain sufficient  
6 detail from which to respond.

7 • Exercise players will react to information and situations as they are presented, in  
8 the same manner as if the exercise were a real event.

9 • [Insert additional assumptions and constraints as appropriate.]

10 [EXERCISE FORMAT – DELETE AS APPROPRIATE:]

11 Operations-based:

12 • If an action cannot be performed for safety or exercise-related reasons, clearly  
13 explain to the controller the action that you would take.

14 • Only contact directly the organizations that are participating in the exercise.

- 1 • If player needs to contact an organization that is not participating, he/she can  
2 contact the controller.
- 3 • Communications between players will take place through standard  
4 communication channels, in accordance with the plans and procedures, unless  
5 otherwise directed by the controller.
- 6 • If you do not understand something in the exercise, or if you are uncertain about  
7 an organization's or agency's participation in an exercise, ask a controller.

8 Discussion-based:

- 9 • This is an open, low-stress, and no-fault environment. Varying viewpoints, even  
10 disagreements, are expected. Do not be afraid to ask questions.
- 11 • The exercise is designed to evaluate organizational and/or national readiness.  
12 The players are encouraged to address actions that would simulate how player  
13 jurisdiction would respond in the actual scenario (gather information from other  
14 tables, pull groups together, etc.).
- 15 • Respond based on players knowledge of current plans and capabilities (i.e., the  
16 players may use only existing assets) and insights derived from training.
- 17 • Decisions are not precedent-setting and may not reflect an organization's final  
18 position on a given issue. This is an opportunity to discuss and present multiple  
19 options and possible solutions.
- 20 • Take note of any observations, remarks, or ideas that are developed during  
21 exercise discussion for documentation in feedback forms.

22 AFTER THE EXERCISE

- 23 • Participate in the immediate de-brief at the pre-designated staging areas.
- 24 • Provide any notes or materials generated from the exercise to your controller or  
25 evaluator for review and inclusion in the debrief or report, as applicable.

## ANNEX X – MEDIA BRIEFING

### General Information

It is important to develop a strategy to interact with the media. This strategy should be planned and implemented several weeks prior to the exercise.

If necessary, media should be notified about an exercise prior to its taking place. It is also recommended to notify the public that an exercise is taking place so that what is an operations-based exercise is not confused with a real event.

It is up to the participating agencies whether to invite the media to an exercise. If invited, the media could have an opportunity prior to the exercise to conduct select interviews with exercise planners and participants. The media should not be present during the discussion of potentially sensitive information.

Exercise planners and participating agencies should determine in advance if, when, and where media footage of exercise proceedings and participants will be allowed. Exercise planners should invite the media to the exercise earlier in the day so that they can make their news report deadlines. Exercise planners should consider limiting the time and availability that the media can have access to the exercise proceedings and participants to help manage risks of interference with exercise play and/or sensitive information. Exercise planners should consider possible mitigation strategies in the event that established parameters and protocols are not upheld.

### Liaison with Public and Media

Any exercise may attract media interest. This may present several challenges, including the following:

- a) The media can interfere with conduct of the exercise;
- b) The media may interfere with the simulated media;
- c) The presence of simulated and real media during an exercise can confuse the players;

1 d) The results of the exercise can be misinterpreted by the media and cause  
2 unnecessary issues after the exercise, especially if the exercise revealed areas for  
3 improvement in the plans and procedures.

#### 4 **Strategy**

5 The information provided to the media should clearly explain the purpose of the  
6 exercise. It should also explain that the exercise is designed to assure operational capabilities  
7 of the response teams.

- 8 • A media spokesperson should be designated to deal with the media during the exercise.
- 9 • Media representatives should be issued and wear clear identification showing that they  
10 media staff.

#### 11 **Media Arrangements**

12 The arrangements should include the following:

- 13 • Spokesperson: A spokesperson must be appointed. This person must be an articulate  
14 representative, who is experienced with media interaction and thoroughly familiar  
15 with the particular exercise.
- 16 • Media announcement: The purpose of the media announcement is twofold: to keep the  
17 media informed and to get timely and accurate information to the public. The  
18 announcement should include a brief description of the exercise including  
19 approximate date, time and purpose. A phone number for public enquiry should also  
20 be included. The person(s) responsible for answering the media enquiry must be  
21 properly briefed.
- 22 • Media photo opportunity: Arrangements may be made for the media to take photos  
23 and/or videos of the exercise. Media liaison officers should be designated to assist.  
24 Clear guidelines must be provided to the media about not interfering with the players  
25 or the exercise site.

26

1 The planning team should discuss whether or not they want to have a press release  
2 disseminated to the media before the exercise. A standard press release contains a brief  
3 overview of the exercise, including the intent of the exercise, scope of the exercise, a synopsis  
4 of the scenario.

## 6 EXAMPLE MEDIA BRIEFING

7 **Exercise development:** All media representatives will be provided with the information  
8 related to exercise objectives, scenario, agenda, and evaluation procedures. They should be  
9 provided with enough information and data to ensure they do not disturb the exercise. When  
10 providing information to media regional/cultural/political considerations should be taken into  
11 account.

12 **Instruments for communication:** Once instruments for communication during the  
13 exercise are established, all media representatives should be advised to make use of those for  
14 official information and updates related to the exercise. Periodicity of information updates  
15 should be explained.

16 **Official statements:** Media representatives should be informed on how official  
17 statements related to the exercise will be conducted.

18 **Restrictions/limitations:** Special considerations should be explained to the media  
19 representatives related to all restrictions/limitations for accessing specific areas, filming in  
20 secured/restricted areas, interactions with exercise participants, etc. Media representatives  
21 should be informed that they will be escorted by designated persons (if required) and should  
22 follow their instructions.

23 **Safety:** All media representatives should be informed on all real risks that may occur  
24 during the exercise. They should be informed on safety related issues, including but not  
25 limited to how to access the emergency medical services, how to use emergency exits, how to  
26 behave if they observe real risks, whom and how to contact, etc. They should be asked to  
27 follow all the instructions given during the exercise.

28 **Filming considerations:** Media representatives should be informed on the photography  
29 and filming policy for the exercise that relates to filming secured locations, personal data and

1 faces, and cultural/historical/religious considerations. It should apply (if required) for  
2 recorded video as well as live video broadcasting. Media representatives should also  
3 understand how they may use video in the post-exercise time.

4 **Taking interviews:** Reporters should be asked to use correct names and positions for  
5 interviewed persons, as well as appropriate time for performing interviews in such a way that  
6 it will not alter the exercise.

7 **Final press conference:** All media representatives should be informed on date, time,  
8 and location for the press conference, as well as the persons who will conduct it. Draft  
9 evaluation results of the exercise may be offered at this stage to the media to the extent it does  
10 not affect the exercise final evaluation. Cultural/religious/political considerations should be  
11 taken into account in this case.

12

13

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## ANNEX XI – OBSERVER BRIEFING

Observers will view the exercise from a designated observation area and will remain within the observation area during the exercise.

A dedicated person could be assigned to manage these groups. In a discussion-based exercise, observers may support the development of player responses to the situation by asking relevant questions, delivering messages, or citing references; however, they generally do not participate in moderated discussion.

### EXAMPLE OBSERVER BRIEFING

A designated individual needs to brief all observers on the following (but not limited to these) issues related to the exercise:

**Exercise development:** All observers will be provided with the information related to exercise objectives, scenario, and agenda. They should be provided with enough information and data to ensure they do not disturb the exercise. When providing information to observers regional/cultural/political considerations may be taken into account.

**Restrictions/limitations:** Special considerations should be explained to observers related to all restrictions/limitations for accessing specific areas, interactions with exercise participants, etc. Observers should be informed that they will be escorted by designated persons (if required) and should follow their instructions. Observers should understand all limitations/restrictions related to interaction with exercise participants and with media during the exercise.

**Safety:** All observers should be informed on all real risks that may occur during the exercise. They should be informed on safety related issues, including but not limited to how to access the emergency medical services, how to use emergency exits, how to behave if they observe real risks, whom and how to contact etc. They should be asked to follow all the instructions given during the exercise.

**Taking pictures and social networking:** Observers should be informed on the policy applied in the exercise for taking pictures during the exercise and further use of those pictures, as well as posting exercise related information on social networks.

1 **ANNEX XII – OBSERVER FEEDBACK FORM**

2

3 **OBSERVER FEEDBACK FORM**

4 <EXERCISE NAME>

5 <DATE>

6 NAME: \_\_\_\_\_

7 ORGANIZATION: \_\_\_\_\_

8 [OPTIONAL]

9 Your feedback is very important to us. It can be helpful for us to develop future exercises  
10 and operational capability. Please be open and honest in your responses.

11 1) How would you rate the exercise structure and contents as a whole?

12  Good

13  Acceptable

14  Unacceptable

15  Additional Comments

16  \_\_\_\_\_

17 2) In your opinion, how relevant was the scenario in relation to the purpose of the  
18 exercise?

19  Very relevant

20  Relevant

21  Quite relevant

22  Not very relevant

1 3) How would you rate the value of the exercise for the participating organizations'  
2 operations/role?

3  Good

4  Acceptable

5  Unacceptable

6  Additional Comments

7  \_\_\_\_\_

8 4) How would you rate the exercise for creating and developing areas for  
9 cooperation/collaboration for response to a similar situation?

10  Good

11  Acceptable

12  Unacceptable

13  Additional Comments

14  \_\_\_\_\_

15 5) How did you find the length of the exercise? Was it:

16  Too long

17  Appropriate length

18  Too short

19 6) How did you find the pacing of the exercise? Was it:

20  Too fast

21  Appropriate

22  Too slow

1 7) Did you receive sufficient information for the exercise from the person(s) responsible  
2 on how it would be conducted?

3  Yes

4  No

5  Partly

6 8) What do you believe would improve future exercises?

7 Comments: \_\_\_\_\_

8

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## ANNEX XIII – EXERCISE DEBRIEF CHECKLIST

### EXERCISE DEBRIEF CHECKLIST

Exercise planners or staff executing de-brief and wrap-up responsibilities should:

- Collect exercise attendance lists;
- Provide copies of attendance lists and exercise documentation to the Exercise Director;
- Collect Participant Feedback Forms;
- Collect Observer Feedback Forms;
- Develop debriefing notes; and
- Conduct the exercise debriefing discussion.

Immediately following the exercise, the Exercise Director should conduct a debrief discussion to reflect upon and evaluate the exercise conduct, including identifying strengths, areas of improvement, and good practices.

The goal of this review is to allow all players to share their observations on successes and failures in the exercise and to generate ideas for future improvements. This review will also provide a forum for participants to share information. During the exercise debrief, every participant should have an opportunity to share his or her constructive comments. As with the exercise, the rapporteur(s) or appointed person should capture all comments.

The following discussion points may be framed for individual capabilities or activities included within the exercise (as required):

**Strengths:** Players identified the following strengths concerning the exercise:

- [List strengths]

**Areas of Improvement:** The following areas of improvement concerning the exercise were identified:

- [List areas of improvement]

1        **Exercise Design:** The following points were raised, regarding exercise design:

2            □ [List points]

3        **Other:** The following was also noted:

4            □ [List Notes]

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DRAFT FOR MS COMMENT