CRC Drill Toolkit

Instructions for Use

September 2015

National Center for Environmental Health
Division of Environmental Hazards and Health Effects

PREFACE

Population monitoring and the operational concept of the community reception center (CRC), initially described in the first edition of the Centers for Disease Control and Prevention's (CDC's) *Population Monitoring in Radiation Emergencies* in 2007, have been incorporated in radiation emergency response plans across the country. To support this effort, CDC has developed a variety of training and planning tools and resources specifically related to population monitoring and CRC operations. This CRC Drill Toolkit is an integral part of this effort.

The toolkit provides guidance and templates that any jurisdiction can adapt to exercise the full range of CRC operations. The drill was developed to be compatible with the U.S. Department of Homeland Security's Homeland Security Exercise and Evaluation Program. It also incorporates insights, issues, and lessons learned from real-world events. These *CRC Drill Toolkit Instructions for Use* provide guidance on using the drill materials. Jurisdictions can either use the materials as presented, filling in drill-specific information where noted, or make more extensive changes to customize the materials to their needs.

Please send your comments and suggestions to the Radiation Studies Branch at CDC via email (rsbinfo@cdc.gov) or mail them to:

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Electronic copies of this toolkit can be downloaded from:

http://emergency.cdc.gov/radiation/toolkits.asp

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APPENDICES

TOOLKIT MATERIALS

The toolkit contains materials for drill **design and development**, **conduct**, and **evaluation**:

Drill Material Category	Description
Instructions and Presentations for Planning Meetings	Presentation Templates and Instructions for the Concept and Objectives Meeting, Initial Planning Meeting, Midterm Planning Meeting, and Final Planning Meeting
Objectives, Capabilities, and Tasks	Core capabilities and general targets for Community Reception Centers (CRCs) as part of the Response Mission Area; suggested objectives and associated capabilities and tasks for a CRC drill
CRC Drill Supply List and Suggested Staffing	List of supplies potentially needed for the drill and suggested number of participants in each role
Guidance for Venue Selection	Considerations when choosing a venue for the drill
Scenario Narrative	Suggested scenario to provide a framework for the drill
Master Scenario Events List Template	Suggested schedule for the drill and major events and injects
Symptomology Cards and Instructions	Pre-populated and blank Symptomology Cards (Actor Cards and Contamination Cards) and instructions for using them to drive drill play
Participant Briefing Presentations	Presentation templates for the Actor, Controller/Evaluator, and Player Pre-Drill Briefings; the Participant Onsite Final Briefing; the Observer/Media Briefing; and the Controller/Evaluator Debriefing
Participant Handbooks	Templates for the Exercise Plan (ExPlan), Player Handbook, Actor Instructions, and Controller/Evaluator Handbook
Name Badge Templates	Color-coded name badge templates for all drill participants
Exercise Evaluation Guides	Templates for noting evaluator observations for each of the five suggested drill objectives
Participant Feedback Forms	Templates for feedback forms, one for actors and one for all other participants

INTRODUCTION

Background

The CRC Drill envisioned through this toolkit is intended to help jurisdictions test and validate their plans and capabilities for population monitoring at the CRC and identify both gaps in those capabilities and areas for improvement. It is designed to establish a learning environment for players to exercise emergency response plans, policies, and procedures as they pertain to operating a CRC.

A drill is a complex event that requires detailed planning. To ensure an effective event, subject matter experts and local representatives from a range of agencies and organizations will likely take part in the planning process and in drill conduct and evaluation. This toolkit is intended to support and facilitate this process, and to provide the tools and materials needed to plan, conduct, and evaluate the drill.

The core capabilities and objectives suggested for the CRC Drill link back to the National Preparedness Goal and Universal Task List for the Response Mission Area. The CRC Drill follows the guiding principles of the U.S. Department of Homeland Security's Homeland Security Exercise and Evaluation Program (HSEEP) and uses its common approach to exercise design and development, conduct, and evaluation.

This instruction manual is divided into three broad sections: Drill Design and Development, Drill Conduct, and Drill Evaluation.

Drill Design and Development

In this phase, the Drill Planning Team is identified to schedule planning meetings, identify and develop drill objectives, design the scenario and drill events, create documentation, plan drill conduct and evaluation, and coordinate logistics.

Drill Conduct

After the design and development activities are complete, the drill can take place. Activities involved with conducting the drill includes setting up for the drill and preparing for drill play, managing drill play, and conducting immediate drill wrap-up activities.

Drill Evaluation

Evaluation is the cornerstone of any exercise or drill and must be considered throughout all phases of planning, beginning with the establishment of objectives. Effective evaluation assesses performance against drill objectives and identifies and documents strengths for areas of improvement relative to core capabilities. This leads into the subsequent step of improvement planning, which is not included in this toolkit.

DRILL DESIGN AND DEVELOPMENT

Drill Planning Team

Once the decision has been made to hold a CRC Drill, representatives from participating agencies and organizations should begin planning. Planning for a drill typically begins 3 to 6 months in advance, with more or less time depending on the anticipated size and complexity of the event. Participating agencies should hold a Concept and Objectives Meeting to establish the general framework for the drill. Members of the Drill Planning Team should be identified either before or at the Concept and Objectives Meeting. Ideally, these individuals will not be players in the drill, although they will likely serve as controllers and/or evaluators.

During drill planning meetings, the Drill Planning Team determines drill objectives and core capabilities to be assessed; creates a realistic scenario to assess them; and develops supporting documentation and tools that are used in evaluation, control, and simulation. The Drill Planning Team will also help develop and distribute pre-drill materials and conduct drill briefings and training sessions. A Drill Director with authority to make decisions for the sponsoring organization should be identified to provide direction to, and oversight of, the Drill Planning Team.

Drill Planning Meetings

Toolkit Reference: Instructions and Presentations for Planning Meetings

To facilitate the drill planning meetings, the CRC Drill Toolkit provides presentation templates for the suggested Concept and Operations, Initial, Midterm, and Final Planning Meetings. It also includes instructions that outline the issues that should be discussed and decisions made at each meeting. Based on these decisions, the Drill Planning Team will create the drill documentation, discussed further in the next section on drill conduct.

Capabilities, Tasks, and Objectives

Toolkit Reference: Objectives, Capabilities, and Tasks

The Drill Planning Team will select priorities on which to focus the drill. These priorities drive the development of drill objectives, which are distinct outcomes that an organization wishes to achieve during the drill. Capabilities that need to be shown in order to achieve those objectives, and the tasks that in turn comprise those capabilities, are also determined in order to provide a framework for drill evaluation. The Toolkit's suggested objectives, capabilities, and tasks for the CRC Drill (beginning on page 4 of the document) anticipate a comprehensive drill that addresses all of a CRC's stations. However, drill planners may wish to change these to increase or decrease the focus on certain elements or to add outside activities that work together with the CRC. Drill planners will also need to adjust the capabilities, tasks, and objectives to address the specifics of the local plans and procedures to be exercised, considering the throughput desired for the CRC, staffing resources, size of population to be processed, available radiation detection instrumentation and other equipment, and other issues.

Drill Logistics

Toolkit References: CRC Drill Supply List and Suggested Staffing

The Drill Planning Team will also be responsible for the logistics of the drill. This includes choosing a place to hold the drill (which may be the site intended for the CRC in the event of a real incident), determining how many participants to include in the various roles, and obtaining the needed supplies to carry out the drill. The Toolkit provides guidance on thinking through these choices.

Scenario and Drill Events

Toolkit References: Scenario Narrative, MSEL, and Symptomology Cards and Instructions

The Toolkit contains a suggested scenario to set up the framework for establishing the CRC. Because the broad functions at the CRC will generally be similar for all types of radiological or nuclear incidents, the Toolkit could be adapted for use with a variety of scenarios. However, the Toolkit suggests (and provides) a scenario involving an Improvised Nuclear Device (see box on next page) detonating at some distance away from the location of the CRC. This permits the CRC to operate without as much concern for events in the immediate area, while at the same time serving a population that will likely have significant radiological, psychosocial, informational, and other needs. The Drill Planning Team can modify the scenario as needed to fit its goals for the drill.

The Master Scenario Events List (MSEL) for an exercise lists the sequence of events that take place as part of the scenario and the expected results. Activities at a CRC are mainly driven by the needs of the population arriving at the CRC for monitoring. Therefore, the MSEL included in the CRC Toolkit is brief and includes a suggested schedule for pre-drill activities as well as a few events that kick off play.

To drive actual drill play, the Drill Planning Team will need to develop other events, or "injects," including cases and situations that participating actors will portray to players. Information for this purpose is contained in the Symptomology Cards. There are two types of Symptomology Cards: Actor Cards, which contain the demographic, situational, and behavioral characteristics that each Actor should portray; and Contamination Cards, which provide each individual's radiological characteristics. Individuals going through the CRC have one of each card type, with the combination of the two cards indicating a person's contamination status and his or her demographic characteristics and behaviors.

The Toolkit includes a set of Actor Cards and Contamination Cards that have already been populated with the information on the second and third sheets of the MSEL. Drill planners should reference the detailed instructions for the use of the Symptomology Cards when determining which cases to choose for inclusion in the drill. Drill planners may also wish to add other events to trigger CRC staff players to take other actions not covered by the listed cases. This will be especially needed if additional objectives, capabilities, or tasks are selected. Planners may use the blank Actor and Contamination Cards included in the Toolkit (provided in Microsoft Word and PDF formats) to create other situations for actors to model.

Planners may also choose to create injects for drill controllers or simulators to drive play. For example, injects may be developed to simulate interaction with local officials, the media, or other responding organizations, or to more deeply exercise certain CRC stations, such as dose assessment or first aid. These should be added to the MSEL.

What is an Improvised Nuclear Device (IND)?

Fissile or fissionable material engineered in such a way that when detonated, it releases significant amounts of energy, creating a shock wave, intense heat and light, and a cloud of radioactive material, also known as fallout. INDs are improvised in the sense that the nuclear material is stolen and then assembled in a makeshift fashion. The damage and deaths associated with an IND will vary according to the technical skills of the perpetrators, its detonation location, the level of shielding in an urban environment, and building construction materials. Most damage and deaths are likely to be centered nearest the detonation point, and injuries (e.g., burns, blindness, lacerations) will occur among people farther away. The smallest INDs are on the order of 1–10 kilotons of equivalent conventional explosives.

Source: Population Monitoring in Radiation Emergencies: A Guide for State and Local Public Health Planners, Second Edition, April 2014

DRILL CONDUCT

Drill conduct involves activities such as preparing for and managing drill play. The Drill Toolkit also contains materials to facilitate drill play. The Drill Planning Team can use the templates in the Toolkit as a starting point and finalize them based on the decisions made during the drill planning meetings.

Participant Briefing Presentations

Toolkit References: Templates for Actor, Controller/Evaluator, and Player Pre-Drill Briefings; the Participant Onsite Final Briefing; the Observer/Media Briefing; and the Controller/Evaluator Debriefing

Briefings are held before the drill to inform participants about their roles and responsibilities. The Toolkit includes templates for presentations for the Actor, Controller/Evaluator, and Player Pre-Drill Briefings; the Participant Onsite Final Briefing; the Observer/Media Briefing; and the Controller/Evaluator Debriefing. Pre-drill briefings are intended to take place in the days before the drill. They are specific to particular roles and may also include training. The Participant Onsite Briefing is intended for all drill participants just before the drill begins to remind participants of general guidelines and logistical issues. The Toolkit contains a template for a separate Observer/Media Briefing, also to take place on the day of the drill, to provide non-participants with a general overview of what they will see. Although it is included in this group of briefing templates, the Controller/Evaluator Debriefing is intended to take place shortly after the Hot Wash, described later in this section, to provide a forum for functional area controllers and evaluators to share their thoughts on the drill. The Drill Planning Team should modify these templates as needed based on decisions made during drill planning meetings.

Participant Handbooks

Toolkit References: Templates for the Exercise Plan (ExPlan), Player Handbook, Actor Instructions, and Controller/Evaluator Handbook

In addition to the instructions given orally during the participant briefings, drill participants should receive handbooks (ideally before the day of the drill) to provide written information on their roles, drill rules, and other topics targeted to their roles. The Toolkit includes templates for the Exercise Plan (ExPlan), Player Handbook, Actor Instructions, and Controller/Evaluator Handbook. The table below summarizes the content of each document. The Drill Planning Team should adapt these templates as needed based on decisions made during drill planning meetings.

Drill Document	Description
Exercise Plan (ExPlan)	Intended for all participants. General information on drill objectives, participant roles and responsibilities, drill assumptions and artificialities, drill logistics and schedule, post-drill and evaluation activities, and other participant information and guidance
Player Handbook	Provides additional details for players on how the drill will be conducted and evaluated

Drill Document	Description
Actor Instructions	While actors can review the ExPlan, the Actor Instructions are intended to be a stand-alone guide to what volunteer actors can expect during the drill and how they should play their roles, including a detailed discussion of the Symptomology Cards; also includes a 1-page summary handout
Controller/Evaluator Handbook	For use only by controllers/evaluators. Includes more detail on the drill, including the scenario, MSEL, and Symptomology Cards, simulation, and evaluation process; also includes controller/evaluator assignments, the Exercise Evaluation Guides, and a template for the Events Log

Name Badge Templates

Toolkit References: Name Badge Templates for Actors, Controllers, Evaluators, Media, Observers, Players, and Support Staff

The Toolkit includes templates for color-coded name badges for all drill participants. Each participant should be given a badge with the color appropriate to his or her role. This will help participants differentiate roles during play and also help identify anyone who should not be in the drill play area. Actor badge templates are included both with and without individual names, since drill planners may decide that including actor names on the badges may confuse players when the actors play other roles. If dedicated simulators are used, they should either be badged as controllers or a new color identified for simulator badges.

The templates are provided in Microsoft Word and have been set up in a table formatted to fit Avery 5392 Name Badge Insert Refills. The file can be adjusted to fit any name badge kit desired; accompanying adjustments to fonts and line spacing will be needed.

DRILL EVALUATION

Evaluation of the CRC Drill will help identify both player strengths and gaps or areas for improvement. The Toolkit includes tools to ensure a consistent evaluation process among evaluators.

Exercise Evaluation Guides

Toolkit Reference: EEGs

Exercise Evaluation Guides (EEGs) assist evaluators in collecting relevant drill observations. EEGs document drill objectives and aligned core capabilities, capability targets, and critical tasks. Each EEG provides evaluators with information on what they should expect to see demonstrated in their functional area. The EEGs are used to evaluate the drill and compile the After-Action Report.

The included EEGs are tailored to the objectives, capabilities, and tasks suggested in the Toolkit. The Drill Planning Team should modify or add to the EEGs as needed to match those objectives, capabilities, and tasks chosen by the team. The EEGs also contain placeholders for the Drill Planning Team to add information on local plans, procedures, and other references against which the evaluators will measure performance. Evaluators will complete and return the EEGs after the Hot Wash, described below.

Participant Feedback

Toolkit References: Actor Feedback Form and Participant Feedback Form

After the drill, participants will discuss their views and insights about the drill and their own experience during a Hot Wash, which may begin in individual CRC stations before participants join together in a drill-wide Hot Wash. Participants will discuss the strengths they observed and areas for improvement, as well as anything observed that was unexpected. Actors will have their own opportunity to share their impressions and insights during an actor debriefing. Following the Hot Wash, controllers and evaluators will hold a separate debriefing to discuss their observations, provide an overview of their observed functional areas, and further discuss strengths and areas for inclusion in the After-Action Report.

Evaluators will document their findings on the EEGs, as discussed above, but all participants will have the opportunity to provide their observations in writing on a participant feedback form. The Toolkit includes templates for two forms, one intended only for actors and one intended for players, controllers/evaluators, and other drill staff. The form for actors solicits feedback on drill design and play from an actor's perspective, including their assessment of the performance of the players in handling the members of the public the actors were asked to portray. The form for other participants also solicits feedback on drill design and play, as well as feedback on training or changes to plans and procedures that might be helpful. Both forms collect information in both quantitative and qualitative formats, asking respondents to rate their assessments on a scale of 1 to 5 and to also provide short written summaries of strengths and areas for improvement by station, as well as recommendations for future exercises.

Information from these forms will also be used in developing the After-Action Report. The findings will be used to improve CRC plans, procedures, and training, as well as future exercises.

APPENDIX A: FOR FURTHER INFORMATION

Topic	Reference
Population Monitoring Guidance	• Population Monitoring in Radiation Emergencies: A Guide for State and Local Public Health Planners, Second Edition, April 2014 [document] • Preparing for Radiological Population Monitoring and Decontamination [video; right click on link and "save as" to save on computer, play]
CRC Tools	• Community Reception Center Overview [video] • Virtual Community Reception Center (vCRC) [training tool] • RealOpt CRC [website, video, and model] • CRC Simulation Tool for Evaluation and Planning (CRC-STEP) [website, video, and model]
HSEEP Guidance	• Homeland Security Exercise and Evaluation Program (HSEEP), April 2013 (DHS) [document] • National Preparedness Goal [document]
Radiation Basics	• Radiation Basics Made Simple [online training]
Detailed Guidance for Specific CRC Issues	• Screening People for External Contamination: How to Use Hand-held Radiation Survey Equipment [video] • Psychological First Aid in Radiation Disasters [training] • Medical Countermeasures for Radiation Exposure and Contamination [fact sheet] • Radiation and Pregnancy: A Fact Sheet for Clinicians [fact sheet] • Acute Radiation Syndrome: A Fact Sheet for Clinicians [fact sheet] • Cutaneous Radiation Injury [webpage] • Use of Radiation Detection, Measuring, and Imaging Instruments to Assess Internal Contamination from Intakes of Radionuclides [webpage]
Public Information	• Health Information for Specific Groups [webpage] • Radiation Emergencies and Pregnancy [infographic] • Radiation Contamination versus Exposure [infographic] • Radiation and Your Health [website]