

PREFACE

The Radiation Emergency Surge Annex Tabletop Exercise (TTX) Toolkit Template has been developed by the U.S. Department of Health and Human Services (HHS), Office of the Assistant Secretary for Preparedness and Response (ASPR) Technical Resources, Assistance Center, and Information Exchange (TRACIE). It can be used by healthcare coalitions (HCCs) to enhance operational area awareness and capability to effectively address the needs of patients impacted by a radiological incident as part of a whole community emergency response framework. It can also be utilized to satisfy [Funding Opportunity Announcement \(FOA\) requirements](#) for the Hospital Preparedness Program (HPP) Cooperative Agreement.

HCCs are not required to use this template and may conduct a radiation emergency surge annex exercise using a radiological incident of their choosing and any acceptable [Homeland Security Exercise and Evaluation Program \(HSEEP\)](#) compliant format.

Note that most scenarios using a large-scale radiological incident requiring care at specialized centers do not test overall surge. Planning for these scenarios is important and should be included in the coalition annex as well as exercise plans. This toolkit uses a Radiological Dispersal Device (RDD) scenario to help jurisdictions anticipate the specific issues related to Strategic National Stockpile (SNS) requests and deployment, radiation exposure screening, radiation illness, and specialized patient care needs that may create competing resource and coordination demands.

This toolkit template is intended to be edited and modified by the HCC Exercise Planning Team to satisfy the concepts and objectives each HCC intends to test. Blue textboxes and bracketed sections are included throughout the document and serve as notes to planners and prompts to enter your own text. *Please delete those boxes and bracketed areas once final planning decisions are made and text has been crafted.*

The complete toolkit template includes the following supporting materials for conducting a Radiological Emergency Surge Annex TTX:

1. Step-by-Step Guide to Implementing the Radiation Emergency Surge Annex Tabletop Exercise Template (this document) ([compliant PDF](#), [DOC](#))
2. Situation Manual ([compliant PDF](#), [DOC](#))
3. Radiation Emergency Surge Annex Tabletop Exercise Presentation ([compliant PDF](#), [PowerPoint](#))
4. Participant Feedback Form ([compliant PDF](#), [DOC](#))
5. Sign-in Form ([compliant PDF](#), [DOC](#))

ASPR TRACIE developed an [HCC Radiation Emergency Surge Annex Template](#), a [Radiological and Nuclear Topic Collection](#), a [Major Radiological or Nuclear Incidents: Potential Health and Medical Implications](#) document, [CBRN resources](#), and has many [additional resources for HCCs](#). For more information, visit www.asprtracie.hhs.gov or contact our Assistance Center at 1-844-5-TRACIE or askasprtracie@hhs.gov.

STEPS TO PREPARING AND CONDUCTING A SUCCESSFUL EXERCISE

Step 1: Determine the need to exercise and receive approval from leadership to proceed, if needed

- Identify the Exercise Director.
- Review the HCC's Radiation Emergency Surge Annex to ensure it is current and ready to test.

Step 2: Exercise Director convenes an Exercise Planning Team (EPT)

- Planning team members should not participate as players in the exercise, but they can serve as facilitators, controllers, or evaluators on the day of the exercise.
- One planning team member should be included for each major entity playing in the exercise (e.g., hospitals, public health, HCC leadership, Emergency Medical Services [EMS], and emergency management).
- Planning team members must attend each planning meeting.

Step 3: Convene a combined Concept and Objectives/Initial Planning Meeting with the EPT

- Establish an exercise date, time, and location (the exercise could be convened in person, held virtually, or a combination).
- Establish an initial list of exercise objectives, considering any gaps or areas of difficulty identified during the development of the Radiation Emergency Surge Annex. Use the accompanying Situation Manual and PowerPoint presentation as a guide but modify and adjust the recommended objectives as appropriate for your coalition's needs.
- Identify exercise assumptions and artificialities.
- Select the exercise scenario, number of modules, and discussion questions. Use the accompanying Situation Manual and PowerPoint presentation as a guide, but modify and adjust the scenario, scope of impact, questions, and modular format as appropriate for your coalition's exercise goals.
- Identify the exercise facilitator. This person should have experience in disaster response, emergency management, or clinical expertise, and prior exercise facilitation knowledge. It is also helpful if the individual is well known and respected in the community.
- Establish a list of exercise participants, preferably by name, but at least by title and organization. The attendees should include, at a minimum, representatives from hospitals (including any frontline facilities, assessment hospitals, and specialized treatment centers serving the HCC's population), EMS agencies/other first response authorities (e.g., specialized radiological safety/environmental agencies, and private sector), local/regional public health (particularly those engaged with medical countermeasure planning), regional/state SNS planner, and

emergency management agencies, radiation exposure subject matter experts (SME), and others (e.g., behavioral health, public health information officers, and staff from the medical examiner's office).

- Note that this scenario focuses on the response and referral process within the healthcare system to drive examination of the Radiation Emergency Surge Annex components. Hospitals should identify both a clinical and an emergency management/administration representative to participate in the exercise. EMS agencies should send a supervisor and/or medical director to attend and participate.
- Confirm exercise controllers and evaluators and select evaluation criteria.
- Determine who will send invitations to potential exercise participants and manage RSVPs.
- Determine who will develop and finalize the required exercise materials.

Step 4: Confirm exercise logistics and send invitations

- Visit the facility to determine if it meets the exercise needs and confirm virtual connectivity, including whether participants need “practice sessions” to ensure the virtual platform works in their location and that they are familiar with how it works.
- Determine what additional supplies are needed to conduct the exercise (e.g., pens, paper, name tags or table tents, computer and projector, other audio visual (AV) equipment, markers, easels, etc.).
- Invite HCC members and ensure representation from all four core members (i.e., hospitals, emergency management, EMS, and public health).
- Invite any regularly engaged radiological emergency referral partners to participate (i.e., in-person, virtual) and ensure participation, ideally including representatives from state or regional radiological safety organizations, environmental agencies, and specialized treatment centers.

Step 5: Develop exercise materials

- Using the materials in this toolkit and based on the outcomes from the Initial Planning Meeting, review and modify the Situation Manual (SitMan), agenda, presentation materials, and the exercise participant evaluation form, according to HCC needs.
- Send draft versions of the materials to the EPT to seek input, review comments, and finalize the materials.
- Send final draft materials to EPT members prior to the Final Planning Meeting.
- Determine whether participants need a “Read Ahead” packet and develop the packet for review at the Final Planning Meeting.

Step 6. Conduct a final planning meeting with the EPT

- Approve all documents as final.
- Confirm and finalize all logistics and attendees.

- Determine who will coordinate “day of” logistics such as on-site registration/sign in, table tents, printed materials, AV equipment, and room setup.
- Send a final reminder email to all participants with any last-minute logistical information. This email should include read-ahead material, specifically the HCC Radiation Emergency Surge Annex. The email should remind participants to review additional attached read-ahead materials and relevant agency or entity specific response plans. Participants should be encouraged to bring appropriate plans, policies, and procedures to assist them in exercise play.

Step 7. Conduct a pre-exercise controller/evaluator training

- This meeting can be conducted virtually or in-person and should be used to review exercise logistics, facilitation support needs, and evaluation expectations.

Step 8. Conduct the exercise

- Provide the Participant Feedback Form at the beginning of the exercise for participants to record their answers throughout the exercise.

Step 9. Conduct an exercise hotwash/debriefing

- A hotwash should be conducted by the exercise facilitator immediately following the conclusion of the exercise. Hotwash slides are provided in the Exercise PowerPoint Template.
- Debriefing occurs following the conclusion of the hotwash, once all participants have departed. The debriefing includes the exercise facilitator, the EPT, and exercise evaluators, and focuses on their immediate thoughts and reactions to the exercise. Controllers and Evaluators should follow up with their written notes.

Step 10. Conduct the after-action process

- Gather comments from participants during the hotwash and from the Participant Feedback Forms.
- Develop the draft After-Action Report (AAR) and Improvement Plan (IP). ASPR TRACIE’s [Exercise Program Topic Collection](#) includes guidance documents and sample AARs.
- Have the EPT and exercise evaluator review, comment on, and validate the draft AAR/IP.
- Prepare a follow-up list of actions, assignments, and a mechanism to update the disaster plan, Radiation Emergency Surge Annex, and related procedures.
- Disseminate the final AAR and IP, along with the proposed plan and timeline for implementing the IP.
- Update and finalize the HCC Radiation Emergency Surge Annex to address lessons learned and mitigate gaps identified during the TTX.
- Provide training on the updated plan and the lessons learned from the exercise to HCC members and participants beyond those who participated in the exercise.

Notes:

HCCs vary dramatically in their preparedness and response roles and capabilities. In some cases, the coalition itself will have a direct role through an operations center or utilization of coalition personnel. In other areas, the coalition is more a sum of the response roles of its partners and ensures that information is being shared among partners and that all response functions are accounted for with agency and facility members of the coalition serving in the leadership role. Coalitions take many forms, but they all must ensure that the *functions* of the response occur, regardless of who or where that may be. This scenario focuses on the healthcare aspects of the response as a driver for other agency supportive actions and is meant to test the HCC Radiation Emergency Surge Annex.

The objective of this effort is to discuss the provision of patient care to those exposed, or potentially exposed, to radiation in a no-fault learning environment to understand what plans are in place and what gaps continue to exist for the members of the coalition and at the coalition or coordination level. While this scenario does not involve high-level radiological exposure that can impact a large population, coalitions should engage with their regional radiation exposure treatment centers on general radiation emergency planning and development of the HCC Radiation Emergency Surge Annex.

Participants should answer the questions according to their facility plans and may compare notes with other facilities during discussion. Seating options vary depending on the number of attendees but hospital personnel from the same facility should sit together and ideally be paired at tables with others from their health system (or other hospitals in the area). EMS personnel should sit together at a table. If multiple public health personnel attend, they should sit together for interjurisdictional discussions. Emergency management and other partners may be assigned their own table or participate in other partner discussions.

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RESOURCES

The following resources may assist in developing and conducting a radiation emergency surge exercise. They may also be useful as references during the exercise or to be used as read-ahead materials:

- ASPR TRACIE: [Radiological and Nuclear Topic Collection](#)
- ASPR TRACIE: [Major Radiological or Nuclear Incidents: Potential Health and Medical Implications](#)
- CDC: [Explosions and Blast Injuries: A Primer for Clinicians](#)
- Conference of Radiation Control Program Directors: [Handbook for Responding to a Radiological Dispersal Device](#)
- DHS: [Radiological Dispersal Device \(RDD\) Response Guidance Planning for the First 100 Minutes](#)
- FEMA: [Radiological Emergency Preparedness](#)
- HHS: [Radiation Emergency Medical Management \(REMM\)](#)
- Oak Ridge Institute: [Radiation Emergency Assistance Center/Training Site](#)
- OSHA:
 - [Radiation Emergency Preparedness and Response](#)
 - [Radiological Dispersal Devices \(RDD\) / Dirty Bombs](#)
- Radiation Injury Treatment Network: [RITN Exercises](#)
- U.S National Response Team: [Radiological Dispersion Device Quick Reference Guide](#)