

**Simple Table Top Exercise, Interdependency –
Notification by News Media Scenario
Scenario #7
Facilitator’s Guide**

Scenario Summary

Background: It is late August in Zenith City. It has been a hot, dry summer and the state has issued a Level III Drought Warning, indicating moderate drought conditions in and around Zenith City. The Riveter’s star shortstop has just been called up to the Major League Baseball parent club. There have been continual news reports regarding labor negotiations between the Brotherhood of Locomotive Engineers and the Midwest Railroad. These negotiations came to a head yesterday with the announcement of an immediate strike that shut down rail service to Zenith City for the immediate future.

The Event: Because of the rail strike, the water system’s primary chlorine supplier informs the Water Superintendent that today’s shipment will not take place.

The Results: The Zenith City Water Department realizes, through a series of unexpected events, that their chlorine supply will run out, and they must investigate other chlorine sources to replenish their supply while also planning for an alternate supply of water (including the delivery of untreated water) to city residents.

To the Facilitator: The goal of this exercise is to evaluate the level of alternatives analysis included in a water system’s emergency response plan. Participants will be required to address techniques to obtain supplies and equipment in a manner outside their normal procedures, while also addressing how and when to notify the public about the situation. The exercise will also demonstrate to the participants that the utility is dependent on many infrastructures that they may not have considered during their emergency planning process.

Intended Participants: This exercise may be run for water supply, public health, state drinking water primacy agencies, federal agencies such as EPA and the Federal Bureau of Investigation (FBI), local law enforcement, and fire/emergency medical services (EMS) personnel.

You may wish to consider inviting:

Public Utilities:	Water/Wastewater Utility Managers, Emergency Response Team Members, Utility Operators, IT/SCADA Operators, Engineers, Sampling Staff, Administrative Staff
Hospital:	Emergency Room staff, Physicians, Nurses and Nurse Practitioners, Hospital Administrators, Medical Laboratory staff, Public Information Officer
Public Health:	Health Officers, Epidemiologists, Technical Specialists, Public Information Officer
Fire Dept., HazMat and EMS:	Fire Fighters, HazMat Team members, EMS workers, 911 Call Center workers
Police:	Police Officers, Counter-Terrorism Specialists
Laboratory:	Analysts / Technicians, Laboratory Administrators
Local Officials:	Mayor and Elected Officials, City Council Members, Local Emergency Planning Committee (LEPC) Members, Local Emergency Management Agency staff
State Officials:	State Environmental Agency Staff, State Health Department Staff, State Drinking Water Primacy Agency, State Emergency Management Agency, Governor's Office Representatives
Federal Officials:	EPA staff, FBI staff, FEMA staff, CDC staff, DHS staff

In particular, water and wastewater utility personnel, local, county and state health officials, and state primacy agency staff should be invited. Participation by public information officers (PIOs) would also be beneficial.

Running the Exercise

Step 1: Decide on a facility, training date, training duration, and who to invite. Invite participants well in advance of your training date to ensure that you can achieve your attendance goal. Allow adequate time for planning and be sure to prepare all materials (digital and hard copy) ahead of time.

Step 2: Depending on who is participating in this exercise, it may be a good idea to have the participants introduce themselves (name, utility, and job title) so that everyone will understand where any particular individual is “coming from” during the ensuing discussions.

Step 3: Explain to the participants that they are participating in a simple table top exercise. There is no time pressure and they are there as a group to discuss their roles and responses to an emergency incident. There are no right or wrong answers, but the group should be able to discuss problem or “gray” areas that may arise during the exercise. Let them know the exercise should stimulate discussion that may lead to changes in the way the participants conduct their daily and emergency operations. Also inform the participants that, although the incident is set in fictional Zenith City, it is okay

to talk about the incident from their own experiences or in the context of their own protocols and procedures. It will make the exercise more beneficial for the participants if they exchange emergency response practices, protocols, and procedures that they currently use.

Step 4: Be sure to give the background PowerPoint® presentation to introduce the participants to Zenith City and to set the stage for the incident. The exercise goals will also be presented as a part of this presentation.

Step 5: Begin the exercise by delivering the first inject. Then, let the discussion evolve naturally on its own after giving the participants the first inject. If necessary, to get the discussion started, simply “nudge” the participants with a non-leading question such as: What would you do in this situation? You could direct this question to the group at large, or, in a group where no one is willing to break the ice, to a particular individual, preferably one that you know serves in a leadership role during the course of their daily activities. You can also refer to the discussion points in the Facilitator’s Guide to help jump-start discussion.

Step 6: Be sure to take notes during the discussions. These notes will form the basis of your after-action review. Note problem or gray areas that need more research prior to resolution and who will perform this research or any action items decided upon by the participants. The notes you take will ensure that a summary of the take-home points, action items or messages will not be forgotten or overlooked. You may wish to write these points, action items and messages on a flip chart at the end of the exercise.

Step 7: Perform an after-action review. You may wish to give the participants a 10 to 15 minute break at the end of the exercise to give yourself time to compose your notes prior to conducting the review. Be sure to review the exercise objectives again to determine if the objectives were met by the exercise. Allow the participants to give their feedback on the exercise and the conclusions or decisions that they arrived at during the exercise. The entire tabletop exercise, including the after-action review, can typically be conducted in a two to four hour session. This time range is flexible and is dependant on the amount of discussion generated during the exercise. The pace of the exercise is controlled entirely by the facilitator, who manages the discussions and presents the injects.

Discussion Points

Remember, it is late August in Zenith City. It has been a hot, dry summer, and the state has issued a Level III Drought Warning, indicating moderate drought conditions in and around Zenith City. The Riveter's star shortstop has just been called up to the Major League Baseball parent club. There have been continual news reports regarding labor negotiations between the Brotherhood of Locomotive Engineers and the Midwest Railroad. They came to a head yesterday with the announcement of an immediate strike that shut down rail service to Zenith City for the immediate future. Exercise participants are provided a map of Zenith City, a water supply distribution map, a wastewater distribution map, and other pertinent materials. If this exercise is to be customized, all these materials may be substituted with a utility's own maps and other materials.

Inject #1 (08:45 hrs., August 24, Material Code(s) SSc7-1): *This is a phone call from the chlorine distributor informing the water superintendent that today's regular chlorine shipment is delayed by a rail strike. The distributor says he is looking for alternative transportation to provide the chlorine.*

Points that could be covered in the discussion of Inject #1 include:

- What remaining chlorine stores are on hand, and how long will they last?
- What guidance does the participants' Emergency Response Plans (ERPs) provide (if any) for an alternate chemical supplier?
- Is alternative transportation available to deliver the needed chlorine?
- What are possible alternatives if the system runs out of chlorine?

Inject #2 (09:15 hrs., August 24, Material Code(s) SSc7-2): *An e-mail from the assistant water superintendent informing the water superintendent that, due to a mistake in a past order, only a 24-hour chlorine supply remains for the water system. The assistant also informs the superintendent that the groundwater supply (which does not need to be chlorinated) can safely provide 17% of the system's peak demand if the surface water intakes are shut down.*

Points that could be covered in the discussion of Inject #2 include:

- Groundwater supplies (which can be used without chlorination) will not provide the necessary water to meet summer demands; where will alternate water come from? (the use of untreated surface water may be required)
- It may be necessary to provide unchlorinated water.
- Planning for potential public notifications should be initiated.
- Will water conservation requirements reduce the potential problem?
- What other agencies should be contacted?
- Can other means to obtain chlorine be explored?
- ERP procedures should probably be activated by the Water Utility Emergency Response Manager (WUERM). Should this situation be managed under an Incident Command System (ICS) or by any of the protocols in the new National Response Plan (NRP) or National Incident Management System (NIMS)?

Inject #3 (10:20 hrs., August 24, Material Code(s) SSc7-3): *A second e-mail from the assistant superintendent reporting that the current chlorine residual in the treated water leaving the plant is 1.2 mg/L.*

Points that could be covered in the discussion of Inject #3 include:

- Can the residual be reduced to extend the life of the remaining chlorine? (note that a safe residual should be above 0.5 mg/L at the furthest point in the system)
- Alternatives for chlorine delivery should continue to be explored.

Inject #4 (11:15 hrs., August 24, Material Code(s) SSc7-4): *A phone call to the water superintendent from his brother-in-law informs the Superintendent that his brother-in-law's truckers union is striking in support of the railroad workers.*

Points that could be covered in the discussion of Inject #4 include:

- Delivery of chlorine by truck or rail is now highly unlikely.
- Do alternate distributors have chlorine on hand that can be picked up by water supply staff? Are they capable of safely transporting the chlorine?
- Can neighboring suppliers provide emergency support through a mutual aid agreement developed as part of the ERP?
- Does the State Primacy Agency have any advice based on their review of the issues?

Inject #5 (13:00 hrs., August 24, Material Code(s) SSc7-5): *An e-mail message from the assistant wastewater superintendent stating that her chlorine supply will last only 3 days and she is wondering if the water superintendent can provide her support if necessary.*

Points that could be covered in the discussion of Inject #5 include:

- The potential to cooperate with the wastewater system operator should be explored.
- Are the two chlorine supplies compatible and able to be shared between the two systems?
- What impacts are there if the wastewater system can no longer provide disinfection?
- Are any additional notifications required?
- Which could have more serious consequences: allowing non-disinfected wastewater to be discharged to the river or allowing non-chlorinated surface water to enter the drinking water system?

Inject #6 (13:50 hrs., August 24, Material Code(s) SSc7-6): *The SCADA system sends an alarm message indicating that Well B has experienced a pump failure. Well B provides one-third of the overall groundwater supply to the Zenith City water system.*

Points that could be covered in the discussion of Inject #6 include:

- How does the temporary loss of this well affect the current chlorine issue and associated response?
- What are the steps to evaluate the cause of the well failure and to repair the well?
- How do the rail and trucking strikes impact the delivery of parts to repair the well?
- Is a standby pump or appropriate standby parts available?

Inject #7 (16:30 hrs., August 24, Material Code(s) SSc7-7): *The media report a fuel release from a 24-foot motorboat on the Crystal River, directly upstream of the water system intakes. The report also mentions that the water system is running out of chlorine used to “clean” the river water.*

Points that could be covered in the discussion of Inject #7 include:

- A response to the spill should be initiated based on the ERP procedures.
- The water system should consult with HazMAat and state and local emergency response personnel.
- Can the spill be isolated from the water intakes?
- Can the water intakes be temporarily shut down to prevent an introduction of the spill into the water system?
- What public information response is required based on the media report of the spill?
- What public information response is required based on the media report regarding the lack of chlorine?
- Should the water department have been talking to the media in advance of the media’s report about the chlorine shortage?
- Who is in charge of the water department’s public communications?

Inject #8 (17:03 hrs., August 24, Material Code(s) SSc7-8): *An e-mail from the Zenith City Health Department offering assistance in dealing with the chlorine crisis.*

Points that should be covered in the discussion of Inject #8 include:

- How can the city water department work with public health officials regarding a public notification concerning the potential distribution of untreated drinking water?
- Who has the authority to issue a “boil” order?
- Beyond public health, who else should be consulted as decisions are made regarding the use of untreated water?
- What water system remediation and recovery steps should be considered once the chlorine supply is restored?