



**U.S. Environmental Protection Agency
Michigan Department of Environmental Quality
Grant for Water Security Tabletop Exercises Report
2007-2008**

Introduction

Patriot Services Corporation was awarded contract # 071B62006416 on September 13, 2006 to perform tabletop exercises (TTX) and train-the-trainer conferences for TTX's for Water Sector systems throughout the state of Michigan. Patriot Services Corporation provided the train-the-trainer instruction to water system personnel to enable them to perform tabletop exercises within their respective communities.

Background

Community public water systems and wastewater systems (Water Sector) have historically developed and maintained emergency Contingency Plans (CPs) that were responsive to system outages due to weather-related incidents and acts of vandalism.

As a result of the terrorist attacks that occurred on September 11, 2001, and subsequent global events, water and wastewater systems need to consider malevolent acts of terrorism as potential problems that the utilities may encounter. Systems should incorporate such acts into emergency CPs. To effectively create and achieve a successful emergency CP, tabletop exercises are a method of incorporating malevolent acts of terrorism into local responsiveness planning.



Homeland Security Presidential Directive No. 8 National Preparedness, signed December 13, 2003, indicates that local departments of public works, e.g., public water and sewage systems, are now a part of the community first responder's network.

The community and non-community water and wastewater systems are key assets of the community's critical infrastructure and therefore local officials need to be active partners in working together to protect their systems. In accordance with Homeland Security Presidential Directive No. 8, it is important that community and non-community water and wastewater officials be a part of the community police, fire, and hospitals' emergency response activities. The tabletop exercises presented by Patriot Services Corporation were attended by these responders, as well as elected officials, governmental administrators and public information officers.



Program

Patriot Services Corporation presented 25 tabletop exercises for the following Michigan water facilities:

- Royal Oak 5/16/2007
- Troy 6/16/2007
- Chesterfield Township 6/19/2007
- Ypsilanti Community Utilities Authority 6/20/2007 & 10/22/2008
- Macomb Township 6/26/2007
- Kalamazoo 8/8/2007
- Farmington Hills 8/20/2007
- GM Proving Grounds 8/29/2007
- Lansing 9/5/2007
- Bloomfield Township 9/12/2007
- Warren 9/18/2007
- Grand Rapids 9/27/2007
- Muskegon 10/16/2007
- Taylor 10/23/2007
- Wyandotte 10/30/2007
- Shelby Township 11/8/2007
- Flint 12/11/2007
- Ann Arbor 12/13/2007
- Novi 2/26/2008
- Monroe 2/27/2008
- Jackson 3/20/2008
- Livonia 4/15/2008
- Mt. Pleasant 9/4/2008
- Commerce Township 10/15/2008

Nineteen of the exercises were held at primarily water treatment facilities and six of the exercises were held at primarily waste water treatment facilities. Collectively, these facilities reported having over 1,715,000 customers. During the 25 tabletop exercises, 358 individuals actively participated.

Exercise Scenarios

The grant required that the facilities face a terrorist act of malevolency that focused on disrupting the water system. Patriot Services Corporation selected scenarios that involved either a vehicle-borne improvised explosive device, a biological agent introduced into the system, or a combination of both.

Participant Feedback

Participants were asked to provide feedback regarding their participation in the exercise. Two hundred and twenty four feedback forms were returned. The feedback forms consisted of six (6) statements. Based on these statements, participants could circle a number, with the number **1** representing “Strongly Agree” through the number **5** which represented “Strongly Disagree”.



1. Prior to the exercise, I felt my agency was prepared to respond to this type of emergency.
2.93
2. I now have a better understanding of my agency's role during a water system emergency.
2.33
3. I feel that inter-agency (city, county, water system) cooperation was improved by this exercise.
2.29
4. I feel this exercise had the appropriate personnel present and participating.
2.13
5. I have a better understanding of what plans/policies/procedures will be implemented during a water system emergency.
2.25

6. I feel the Hotwash was beneficial in identifying issues and potential solutions.

2.07

Additionally, participants were invited to write comments regarding the exercise. The following is a selection of some of those comments:

“We need to update our emergency plans bi-annually”

“We need to clarify roles and responsibilities within our department”

“Our public information system needs to improve”

“We need better communications systems – radios”

“We need to talk to the other departments about our water system”

“...we are vulnerable to this type of attack...”

“More incident command training is needed by everyone in the department”

“Make emergency planning a priority of the water department”

“Identify alternative testing laboratories in the area”

“Overall security at the plant is good but needs ongoing improvement”



Train the Trainer Conferences

Ten Train-the-trainer (TTT) conferences were held. The purpose of the the TTT is to enable the water system to be able to perform a TTX on their own without the assistance of a contractor.

The following is the list of the TTT's conferences that were performed:

Mason 12/6/2006
Rockford 12/8/2006
Wayne 1/3/2007
Midland 1/10/2007
Mason 1/10/2007
Pontiac 1/16/2007
Traverse City 1/23/2007
Marquette 1/24/2007
Kalamazoo 2/16/2007
Oakland County 11/20/2008

Summary

Patriot Services Corporation presented 25 tabletop exercises that tested responses to a malevolent act directed at water systems. The exercises involved 358 individuals representing water, waste water, police, fire, hospital, and other governmental and non-governmental agencies. These water systems provide services to over 1.7 million customers. Participants generally indicated satisfaction with the exercises. They identified issues of strength and issues for improvement. During the exercises, critical issues were often discovered and solutions were addressed.