



CDM

Michigan Water Utility Summit

Table Top Exercise: How Do You Do One?

June 5, 2006

Presented by Michael P. Kovach, P.E.



Mission

Mission of a public water supply system, regardless of size is to provide a safe and adequate quality and quantity of potable water at all times to all water customers





Table Top Exercise

- ◆ A procedure or process in which a facility's Emergency Response Plan (ERP) is tested in a controlled environment.
- ◆ Examines the capability of the in place ERP to minimize the impact of a breach to the water system caused by a natural event or malevolent act.
- ◆ Brings together varied public and private officials to observe their response to a water system event.



Emergency Response Plan

- ◆ Major component of a water and wastewater utilities overall operation plan
- ◆ Necessary to ensure continuity of operation during a crisis situation, due to natural events, accidents, or malevolent acts

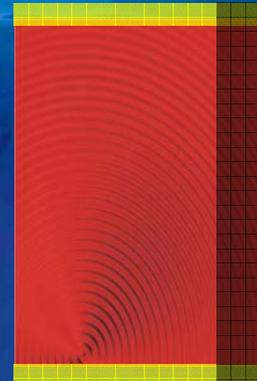




Table Top Exercise

Testing to see if what's on paper can really be put into practice



What are Typical Consequences to Avoid?

- ◆ Deaths and Illnesses from Waterborne Disease
- ◆ Interruption in Water Service to Critical Customers
- ◆ Loss of Pressure
- ◆ Adverse Effects on Public Safety





More Consequences to Avoid

- ◆ Loss of Water for Basic Health and Sanitation
- ◆ Loss of Fire Protection
- ◆ Economic Loss to Utility or Region
- ◆ Loss of Consumer Confidence

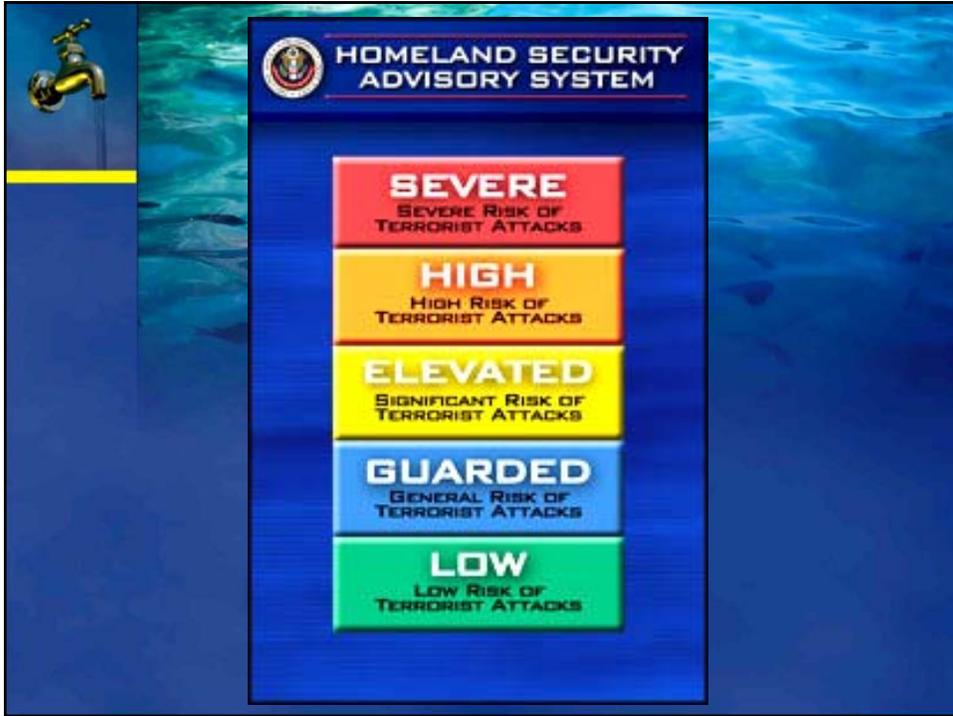


The Law: PL 107-188

- ◆ Public Health Security and Bioterrorism Preparedness and Response Act of 2002
- ◆ Signed into law on June 12, 2002



Credit: Randy Mantoya



Who might target a Michigan system?

Power Chaos Hits US

August 14, 2003
New York and several major cities in north east America and Canada are in chaos after power failures hit a large area of the continent. The blackouts were reported in New York City, Toledo and Cleveland, Ohio, Erie, Pennsylvania, Connecticut, New Hampshire, and Detroit, Michigan as well as Toronto and Ottawa in Canada. 10 million Canadians are believed to have been affected. Cities as far away as Chicago were affected and airports were closed. The New York stock exchange grew clear how quiet open. In New York, were evacuated the streets fill forced to walk blaring heat. But the power was no sign of New York still has declared a national emergency that the problem at a power plant a 'cascade' of it does not stop of terrorism. The blackout continent's in control, appear Negro-Mole

Incendiary Devices Placed at Michigan Water Plant

September 25, 2003
Associated Press
MARTIN TOWNSHIP, Mich. (AP) — Four incendiary devices were found inside a water-bottling plant's pumping station, and a radical environmental group said it was responsible. Plastic bottles containing a flammable

Eco-terror Group Claims Responsibility For Ice Mountain Sabotage

September 24, 2003
Associated Press
MILWAUKEE (UPI) — An animal rights extremist group claimed responsibility for a sabotage of an ice plant in Michigan. A letter with several names, including one identified as "John Doe," signed as a group name. The letter was left at a site where the sabotage took place. The letter said the sabotage was done to protest the treatment of animals in the meat industry.

Nine Arrested in Rome with Maps to Water System

Food and Water Now Terror Targets



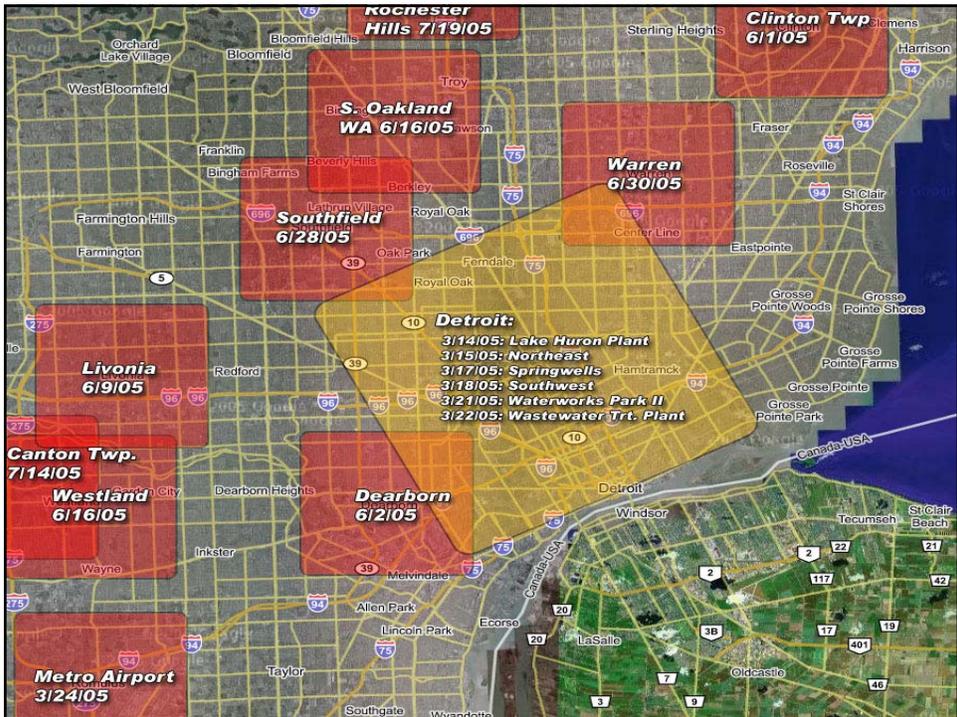
2005 Incidents

- ◆ Railroad accident, chlorine gas tank leak, 8 killed, Jan. 2005, South Carolina
- ◆ Contaminated petroleum-based product at plant introduced into water system, Pa. 6/6/05 Do not use notice
- ◆ Locks tampered on 18 foot tank, Montana, 6/11/05, Drinking water advisory
- ◆ “PCB Contaminated” written on well pipes. Well closed, nothing in water, 7/7/05, Elk, Ca.



Table Top Exercises

- ◆ MDEQ contract/Homeland Security/CIP
- ◆ February to July 2005, 30 Tabletop Exercises were conducted
- ◆ Over 400 attendees responsible for providing clean drinking water to approximately 5 million of the 10 million Michigan residents
- ◆ Fire, Police, Utility personal and others attended





Purpose of Table Top Exercises

- ◆ Test how emergency responders, public officials and water suppliers work together in a water security incident
- ◆ Determine methods for the recovery and remediation of a contaminated, destroyed or disrupted water system



Exercise Format

1. Facilitator and Evaluator
2. Place and People
3. Up-to-date ERP
4. Meet and Greet
5. Scenarios
6. Participant (Inside) Review
7. Evaluator (Outside) Review



Facilitator and Evaluator

- ◆ Proper selection of both is critical to a useful exercise
- ◆ Both should be from “Outside”
- ◆ Independent and impartial
- ◆ Facilitator should be experienced, not so critical for Evaluator



Place and People

- ◆ The location for the exercise is very important
- ◆ Room of sufficient size to accommodate everyone is basic
- ◆ Round table setting with flip charts/blackboard will enhance overall group participation
- ◆ Allot 3 to 4 hours for the exercise
- ◆ Not open to public, especially no media



Water Unsafe to Drink? Water System Unprepared for Emergency



People - Invitees

- ◆ Key water supply personnel
- ◆ City/village manager
- ◆ Police and fire department officials
- ◆ Local public health department
- ◆ MDEQ district staff
- ◆ LEPC
- ◆ Other



ERP

- ◆ Participants should already have a copy of the ERP to bring
- ◆ Document should be referenced during exercise
- ◆ Have new copies ready to replace old ones



Meet and Greet

- ◆ Introductions
- ◆ Place cards
- ◆ Water utility official system overview



Scenarios

- ◆ Developed prior to exercise by facilitator
- ◆ Location Specific
- ◆ 3 or 4 Developed
- ◆ Presented one at a time
- ◆ Allowed to fully run course



Scenario One

Monday, February 27, 8 a.m.

- The Township Fire Department responded to a call from a school about an explosion near the school.
- The initial report from the scene was the explosion was centered at the Township water treatment plant.
- All electric lines to the plant have been destroyed and the building has been leveled.
- There is a strong smell of chlorine in the air.





Scenario Two

A threat is called into the 911 dispatcher.

- The Anti-Sprawl Fanatics were going to stop growth in the township. Call received Saturday, April 22 at 11 p.m.
- At 11:30 p.m. an alert neighbor calls 911 and reports that a strange looking person was at the 1.5 million gallon elevated tank.



Scenario Three

Day care owner calls the police on Wednesday, July 5th at 8 a.m., says there is a lawn care company truck hooked up to a fire hydrant in front of her facility.

- Police arrive and there is no one in or around the truck
- Officer notices a yellow liquid on the ground around the hydrant





Participant Review

- ◆ Self Evaluation
- ◆ Outline their course of action for improvement
- ◆ Additional resources needed?
- ◆ Break



Evaluator Review

- ◆ Facilitator and evaluator meet alone
- ◆ Discuss all “observations”
- ◆ Evaluator presents “observations”, bad and good
- ◆ Keep it positive
- ◆ Facilitator wrap up



Common Points from Table Tops

- ◆ Get to know who is going to respond
- ◆ Testing for Unknowns
- ◆ Lack of communication
- ◆ Resources available
- ◆ Public notification
- ◆ Radiological Contamination



Participants Comments at Exercises

- ◆ Have one point of contact
- ◆ Does the public know what “Shelter in place means”?
- ◆ WMD - Weapons of Mass Destruction
- Weapons of Mass Disruption
- ◆ Exposure Prevention, Containment, Isolation
- ◆ Adjacent utility notification



Participants Comments (cont.)

- ◆ Drinking water notices on MDEQ website, www.michigan.gov/deq/water; and better understanding of what they mean
- ◆ Storage tank water can be used to backflush the distribution system
- ◆ Closing large valves
- ◆ “Rush to flush” may make things worse
- ◆ Disposing of contaminated water/material?
- ◆ Cross training of employees can keep operations going



Benefits of the Table Top Exercises

- ◆ Provided face to face with Fire, Police, MDEQ, and utility personnel
- ◆ Let utilities know they are not alone when an incident occurs
- ◆ Identified other resources available
- ◆ Provided heightened awareness of “terrorist” acts
- ◆ Should be done frequently



Thank You!

- ◆ Questions?

- ◆ MDEQ

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