

Tabletop Exercise

Memphis-Shelby County LEPC
April 15, 2010

Facilitator:
John Selberg
Assistant Fire Chief
Germantown Fire Department

Purpose

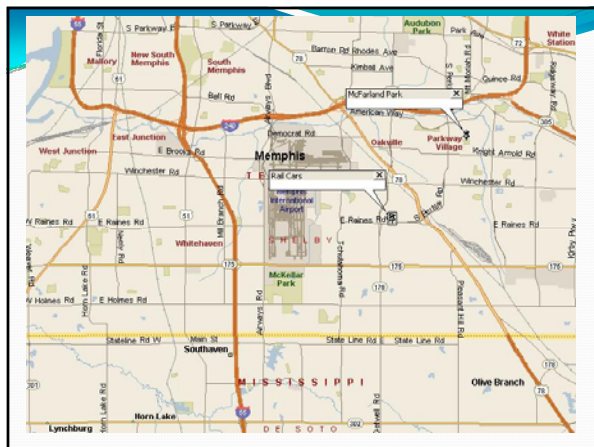
- This exercise will present a scenario of an incident that could happen in Shelby County. The incident will include Hazardous Materials (Haz-Mat) and other problems.
- The intent is to provide us an opportunity to look at our ability to respond to a Haz-Mat incident. We will identify the response and coordination issues that could arise during a Haz-Mat incident and look at how to resolve those issues.
- The exercise will take us through a sequence of events that might happen during an incident.
- We will identify a few specific people to address specific roles for the scenario, but mainly everyone will consider the roles and responsibilities of everyone involved. In other words, EVERYONE NEEDS TO BE INVOLVED.

Background Information

- The City of Memphis has a large chemical industry. Many of these have nearby rail access to allow for easy transportation of chemicals and other products. The Memphis Fire Department has 3 Haz-Mat Response Teams (Rescue Companies) to handle Hazardous Materials incidents. Additionally, Germantown FD and Shelby County FD also have Haz-mat Response Teams.

Scenario

- It is Thursday, April 15. The temperature was a warm 75 degrees in the morning. A cold front moving through the Mid-South has brought heavy rains and severe weather as it moves across the Mid-South area, moving towards the northeast.
- At noon, there will be a dedication ceremony for new ballfields at McFarland Park, located on Cottonwood St. east of Perkins Rd. This will also serve as a means for the Mayor to “kick off” baseball season in Memphis, including a large tournament that will be held this weekend. They anticipate a large number of people, including members of the baseball team that won the Memphis league in 1965.
- A two-engine freight train has stopped on the railroad tracks behind 4025 Air Park to offload. This train includes 12 cars, hauling various items including some chemicals.



Message 1

- At 11:00 a.m. the NWS issues a Severe Thunderstorm Warning for Shelby County.

Question?

- What takes place in Shelby County, such as warnings from MSCEMA?
- Do the chemical companies modify their operations due to weather warnings?
- Would anything else be happening?

Message 2

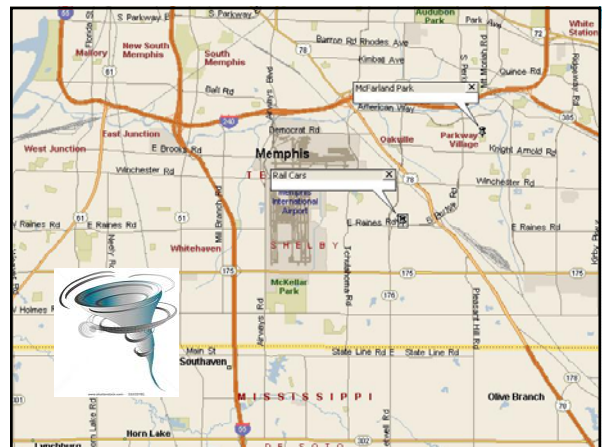
- At 11:30 a.m. the NWS issues a Tornado Watch for most of the Mid-South area.

Question?

- What takes place in Shelby County, such as warnings from MSCEMA?

Message 3

- At 11:45 a.m. the NWS issues a Tornado Warning for Desoto County, reporting a possible funnel cloud in the N.W. Desoto County area. There are a few reports of light damage in the Southaven area.



Message 4

- At 11:55 a.m. the NWS issues a tornado warning for Shelby County, reporting that the funnel cloud moving through Desoto County is expected to go through Shelby County.



Question?

- What takes place in Shelby County, such as warnings from MSCEMA?
- Does the EMA status change?
- How are tornado sirens activated in Shelby County?
- What other forms of warning are there?

Message 5

- At 12:05 p.m. a Memphis Police patrol officer reports what appears to be a funnel cloud just southeast of the Memphis International Airport, near Shelby Drive and Tchulahoma Dr.



Question?

- Who would be notified of this?
- What actions would be taken at this point?
- Anything else?

Message 6

- At 12:08 p.m. Memphis Fire Department begins receiving 911 calls for damage in the area of E. Raines Rd. and New Getwell Rd. This includes building damage, including a possible collapse, and injuries.



Question?

- Who all would be notified of this?
- What resources would normally be sent?
- What types of resources (capabilities) would you think that they might need at this time?
- Would the EOC be activated?

Message 7

- The Fire Dept dispatches resources to 2 different locations in the area. 4 engines, a truck company, 2 ambulances, a rescue company, and a BC are sent to a business at the N.W. corner of Raines Rd. and Senator St. on reports of significant damage to the building and injuries. 4 engines, a truck company, 2 ambulances, a rescue company, and a BC are sent to a business at the N.W. corner of Raines Rd. and Air Park St. on reports of the roof of the building being heavily damaged with partial collapse.
- The Police Dept dispatches multiple patrol cars to the area.



Question?

- Anything else needed?

Message 8

- At 12:12 p.m. the first engine to arrive on the scene on Air Park reports that the building has suffered extensive damage and they are checking further. Then the engine Lieutenant reports seeing a train that is partially derailed near the tracks between Air Park and Senator, just north of E. Raines Rd. He reports that it appears to have about 4 cars rolled over and a greenish cloud appears to be coming from at least 1 of them.





Question?

- What should happen now?
- Who else should be requested?
- What would be the initial incident command structure?
- Where would they find initial information about what might be on the train?
- What about notifying the public?

Expected Actions

- Establish incident command
- Complete size-up and set up staging area
- Establish preliminary perimeters, control zones (cold, warm, hot)
- Order evacuation of the area
- Contact railroad company for a copy of the train consist
- PIO prepare an EAS message that includes evacuation and sheltering info. How would this be sent out?
- Assure responders using proper PPE. What would that be?
- Begin accounting for people in the area

Message 9

- The Fire Lieutenant assumes Air Park Command and requests a Haz-Mat response to their location.

Message 10

- At 12:13 p.m. MFD Dispatch receives multiple 911 calls regarding people at 4065 Air Park St and nearby that are complaining of a bleach-like smell in the air and difficulty breathing. They also report that they believe there is an unconscious person behind the building, near the train tracks. Multiple ambulances are dispatched to these locations. Haz-Mat (Rescue 3) is already enroute to this location on the initial assignment.

Message 11

- At 12:14 p.m. Rescue 3 arrives on the scene. The R-3 Lieutenant reports a greenish-yellow cloud coming from beneath one of the derailed cars. He does not observe any other leakage at this time.



Question?

- How would the IC/Haz-Mat handle this incident?
 - Initial Size up?
 - Current Situation?
 - Initial Response Strategy, including response priorities?

Expected Actions

- Priorities:
 - Life Safety
 - Incident Stability
 - Property Conservation
- Determine strategy and tactics (how to handle the rescue, leak, etc)
- Assure Unified Command established, including Fire and Police
- Establish control zones (hot, warm, cold)
- Monitor zones with AreaRAE System
- Establish Decon and treatment stations
- Request additional resources as needed. Where could more Haz-Mat resources come from (public & private)?
- Request assistance from Railroad.
- Identify product. What detectors can help with this?
- How can we find out about the chemicals? Rail Consist, CAMEO, WISER, NFPA Haz-Mat Guide, CHEMTREC, NIOSH Pocket Guide, ...
- Initiate rescue as soon as possible



Question?

- What else might be done?
- Any other thoughts?

Side Note

- What if this had been chemicals coming from a business that was a Tier II reporter? How could we have gotten info on what chemicals might be involved?

E-Plan

- E-Plan is the new electronic means for Tier II reports to be submitted. This info is available via Internet to first responders.

Message 12

- At 12:23 p.m. MFD Dispatch receives a call from MPD to advise that they had officers at McFarland Park for the dedication. When the storm was approaching, most of the people went into buildings, although some took refuge in their cars in the parking lot. The tornado tossed some of the cars in the parking lot and piled some up. There are many people with minor to moderate injuries, primarily from debris. They know of at least 6 people trapped in cars and believe there could be more. They request FD response.
- Dispatch sends 4 engines, 2 truck companies, a rescue company, 4 ambulances, an EMS Supervisor, and 2 battalion chiefs.



Question?

- How would this affect the other Haz-Mat incident?
- What other resources would be needed?
- At what level does this become a Mass Casualty Incident (MCI)?
- If this is an MCI incident, where do we have MCI supplies in the area?
- How might you transport a large number of walking-wounded?
- How do you track a large number of patients?

Message 13

- At 12:25 p.m. a reporter for ABC24 News goes live on the scene of McFarland Park showing the damage to the vehicles. Several injured people are walking around as well as some that can be seen trying to get out of their damaged cars that are piled together. Many people are lying on the ground injured. People are rushing to help them.

Questions?

- Does this change anything?
- What about a Press Release?
- How do you handle the media on the scene (there will be more)?
- What would the EOC be doing at this time?
- What about scene control?

Message 14

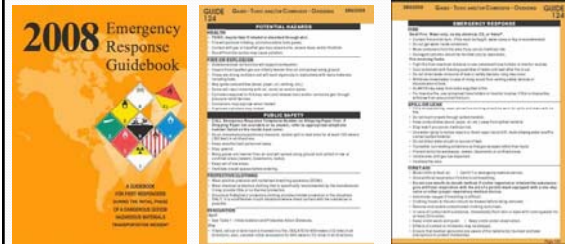
- At 12:30 p.m., a Battalion Chief assumes Air Park Command. He reports that there appears to be 1 person unconscious near the train cars and they have about 15 people that require immediate medical assistance. There appears to be only 4 train cars derailed with 1 leaking a gas cloud. The Haz-Mat Team reports that the leaking rail car is placarded with UN 1017 (Chlorine).



Chlorine Tank Car



ERG – Guide 124



Questions?

- How does this affect the actions?
- What level of PPE is necessary?

Message 15

- At 12:32 p.m. MFD Dispatch receives calls from nearby hospitals reporting that they have several people reporting to the EDs complaining of burning eyes and nose, sore throats, difficulty breathing, coughing, headaches, and dizziness. They ask the FD if they know what the chemical was that these people may have been exposed to.



Question?

- What needs to be done?
- How would the FD notify all of the hospitals of the incident and possible chemical?
- Who could also help get this info to the hospitals?
- What public info needs to go out at this time? Who would do that? What would it say?

Expected Actions

- Utilize EMS systems to notify Hospitals (and other EMS responders) of situation and possible chemical, when known.
- Hospitals secured, begin Decon procedures prior to allowing into ED.
- Notify Health Dept to assist with notification of Hospitals, etc. They can also help give info to the hospitals on treatment procedures.



Message 16

- Around 12:30 p.m. some people are trying to leave the immediate area, while other people are trying to get into the area to see what is going on.
- Traffic is backing up in the area and people are getting angry at not being able to get through.

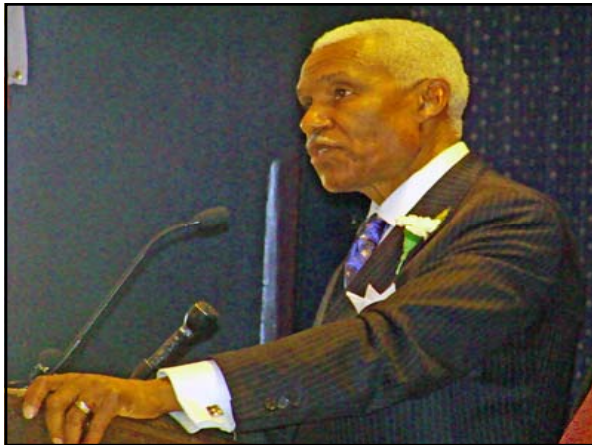


Question?

- How would this be handled?

Message 17

- The mayor wants to give a news briefing. Specifically, the mayor wants to know the number of casualties, what chemical is involved, what people are to do, and how long it will be until people can go back to the area.



Question?

- Who would handle this?
- How would it be handled?
- How would the info be obtained?

Message 18

- The leak is proving to be a real challenge and projections are that it is going to take at least 24 hours before it can be fully contained and there is a significant change in the toxicity of the air.

Question?

- How do you plan for this?

Expected Actions

- Determine expected arrival of those deployed for containment and offloading operations.
- Evaluate the need for additional resources to support 24 hour operations, including additional Haz-Mat personnel and equipment.
- Develop plan to support 24 hour operations, including command personnel. Possibly consider an Incident Management Team (IMT) to assist.

Incident Management



Message 19

- By 2:00 p.m., the Haz-Mat Team has removed all victims from the area and completed Recon of the damage. At least 1 victim is a fatality while several others are in critical condition.
- The IC has received copies of the Train Consist. The ruptured tank car contains 180,000 pounds of chlorine. According to the Consist, one of the other derailed cars contains 205,000 pounds of potassium hydroxide and another contains 20,000 pounds of sodium chlorate.
- The rail company response team arrived at 2:30 p.m. to help with the leak containment and offloading.
- There is concern about the release of chlorine into the ground water because of the magnitude of the leak and the proximity of storm drains to the derailment.




Question?

- What actions are necessary?
- What needs to be done about possible ground water and storm water contamination?
- Who else needs to be notified?

Expected Actions

- Haz-Mat Team to investigate other rail cars to determine if damaged or ruptured.
- Consult ERG and other resources for properties of these other chemicals and their implications.
- Ask that EMA notify the Coast Guard of the possible water contamination.
- Ask that EMA notify EPA of possible ground water contamination.
- Assure that TEMA has been notified.
- Coordinate with railroad response team.



Message 20

- By 3:00 p.m., news media are gathering around the perimeters of the various incident sites.
- It is determined by the Haz-Mat Team that the other derailed rail cars are damaged but not ruptured.
- PIOs and representatives from Fire, Police, EMA, the Mayor's offices, the railroad, and other agencies are freelancing and putting out conflicting information.
- Many people are showing up at the scenes and want to know about loved ones that they speculate were in the area at the time of the tornado.
- EPA and Coast Guard begin arriving on the scene.

Question?

- How do you handle getting proper info to the public?
- What about the various PIOs?
- Do we ever have problems with multiple spokespersons saying different things?
- What needs to be said to the public?


Expected Actions

- A Joint Information Center (JIC) needs to be established to coordinate the actions of all of the PIOs and to assure proper info is relayed.
- Establish periodic briefing schedule for media.
- Advise friends and relatives how to get info on their loved ones.
- Brief private and public officials and coordinate efforts of all response agencies.



Message 21

- City Officials begin inquiring about a Disaster Declaration. They want to know what their options are and what should be done.
- The School Board calls the EMA to inquire about Chlorine infiltrating nearby schools and request that the Fire Dept thoroughly inspect each nearby school building.



Questions?

- What procedures are followed for a Disaster Declaration?
- Who initiates this?
- Who is authorized to declare a disaster or request State/Federal assistance?
- What is the difference between a local State of Emergency, State Disaster Declaration, and Federal Disaster Declaration?
- What needs to be done about the school?

Message 22

- By 4:00 p.m. the following day, the railroad has finished offloading the chemicals. The toxicity has been mitigated and the area is safe for re-entry.



Questions?

- What still needs to be done?

Expected Actions

- Unified Command develop and follow a Demobilization Plan to release resources.
- Formulate a cost accounting for the incident in case of possible reimbursement for the disaster.
- Develop Press Release to advise public.
- What else?

The End

- Any other comments or questions?