GROUP EXERCISE

Evacuation Scenario based on the Miamisburg Trail Derailment
Exercise Instructions

- Working as a team, review the scenario and scenario map.
- Answer the questions assigned to your group within the allotted time.
- Record your answers on chart paper.
- Choose a spokesperson and be ready to briefly present your answers.
- There will be three segments to this exercise.
July 8th at 4:25 P.M. 15 cars of a southbound freight train have derailed on the outskirts of Miamisburg.

Derailing on a bridge, several cars were extensively damaged, lost product, and resulted in a fire;
- Newsprint
- Molten sulfur (13,000 gallons)
- Yellow phosphorus (12,000 gallons)
- Tallow
Product has been released into the Bear Creek.
Unified Incident Command has been established and determined that the intense phosphorus fire could only be controlled by large volumes of water – this will take several hours to implement.

It has been recommended that select areas of Miamisburg, West Carrollton, and Moraine be evacuated.
Estimated Path of Toxic Cloud

Population 6,599
Housing Units 2,817

Initial Evac Zone

Carrollton City
Based upon the vulnerability zone identified:

- **Groups 1&2:** What sort of resources and tools would you use to define the population at risk?
- **Groups 3&4:** What factors might influence where evacuees go?
- **Groups 5&6:** What traffic/transportation components would you put into affect to ensure a controlled and rational evacuation?
Water suppression has been effective and by 8:30 P.M. smoke is no longer visible from the phosphorus tank car.

Shortly after midnight an evaluation team assesses the tank car and determines that approximately 4,000 gallons of the product remain inside the vessel.

July 9th, at approximately 6:00 P.M. a structure supporting the phosphorus tank car shifts causing product to escape and the fire intensifies.
A large smoke plume has been carried east at 6 mph over Miamisburg.

A temperature inversion has developed causing the cloud to remain close to the ground.

A second evacuation has been initiated with shelters being established as far as Dayton.
Estimated Path of Toxic Cloud
Based upon the vulnerability zone identified:

- **Groups 1&2:** What information is to be conveyed to the public about the evacuation?
- **Groups 3&4:** With whom will evacuation information be coordinated and released to the public?
- **Groups 5&6:** What factors will be tracked as evacuation operations are monitored?
Estimated Path of Toxic Cloud
Based upon the information obtained so far:

- Groups 1&2: Identify resource requirements (by agency and job description) to provide effective perimeter control measures.
- Groups 3&4: What are alternatives to public sheltering and how might these alternatives be implemented?
- Groups 5&6: 62% of U.S. households report owning a pet. What factors should be considered for an evacuation of this size?