



In-Station Training

TM 25-45 Hazmat Incident



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Purpose

For fire officers, structure fires often present a familiar situation. Hazmat incidents on the other hand may present a more complex puzzle, particularly when multiple and/or unknown hazardous materials are involved.

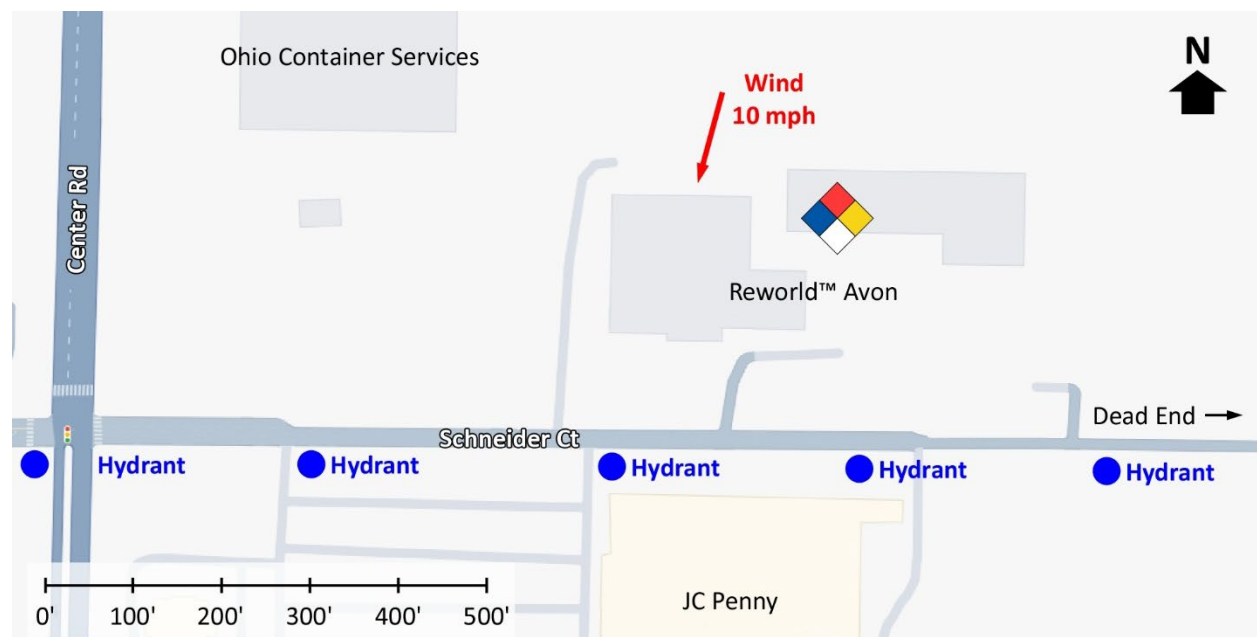
Learning Outcomes

Firefighters and officers perform an effective size-up, select an appropriate strategy, and implement tactics based on the strategic decision-making model.

Conducting the Drill

This incident involved a hazmat incident at ReWorld™ Avon, 35850 Schneider Court, Avon, Ohio on Thursday, October 16, 2025, at 09:00 (WKYC Channel 3, 2025; Daprile, 2025; Roeser, 2025; & Broadcastify, 2025a & 2025b). Review the map and photos (Figures 1-7) to gain an understanding of the building and area involved.

Figure 1. Map of the Incident Area



Note: Adapted from Google. (2025a). [Map, 35850 Schneider Court, Avon, OH]. Map data ©2025 Google. <https://bit.ly/4nrd67l>.

The closest hydrants are directly in front of the facility with additional hydrants located along Schneider Court and on Center Road as illustrated in Figures 1 and 2.

Figure 2. Aerial/Preplan View



Note: Adapted from Google. (2025b). [Aerial view 1 35850 Schneider Court, Avon, OH]. Imagery © Google, Imagery © Airbus Maxar Technologies, Map Data © 2025. <https://bit.ly/4o6r27A>.

Figure 3. Approach from the West on Schneider Court-Building 1 Alpha/Bravo Corner



Note: Adapted from Google. (2023a). [Street view 35850 Schneider Court, Avon, OH]. ©2025 Google. <https://bit.ly/3Jt8wY8>.

Figure 4. Building 1 Side Alpha



Note: Adapted from Google. (2023b). [Street view 35850 Schneider Court, Avon, OH]. ©2025 Google.
<https://bit.ly/47lpJG8>.

Figure 5. Buildings 1 and 2 Side Alpha



Note: Adapted from Google. (2023c). [Street view 35850 Schneider Court, Avon, OH]. ©2025 Google
<https://bit.ly/3LdhgSB>.

Figure 6. Building 2 Alpha/Delta Corner



Note: Adapted from Google. (2023d). [Street view 35850 Schneider Court, Avon, OH]. Map data ©2025 Google <https://bit.ly/4793toR>.

Figure 7. Aerial View



Note: Adapted from Google. (2025c). [Aerial view 1 35850 Schneider Court, Avon, OH]. Imagery © Google, Imagery © Airbus Maxar Technologies, Map Data © 2025 <https://bit.ly/4o80NO7>.

The **temperature is currently 53° F with wind from the north northeast at 10 mph**, the sky is clear with no precipitation (Weather Underground, 2025). **You are the company officer of an engine company**. It is Thursday, October 16th, and you are dispatched as a single company at 09:00 for an investigation of the smell of something burning in the 35000 block of Schneider Court. Your company has four person staffing¹. You are familiar with the area. The ReWorld™ Avon hazardous waste recycling facility at 35850 Schneider Court has had multiple fires and hazmat incidents over the last several years.



Time starts now! Answer the first eight questions within the next 10 minutes. Decide and put your answers in the form of communication you would have with your crew, other companies, and the first arriving command officer. Save discussion for after answering these eight questions.

1. What critical factors would you consider when dispatched and during response? What conversations would you have with your crew during response?

While you are enroute, dispatch advises that they have received multiple calls of a large amount of smoke in the area and a caller from ReWorld™ reports an “unknown chemical reaction.” Upgrading to a commercial first alarm, the dispatcher adds **four other engines, two ladder companies**, medic unit, and two **command officers** to the assignment. The engines and ladders have four-person staffing². As your company was initially dispatched as a single company, you anticipate that it will be approximately eight minutes before the next engine and first arriving ladder company will arrive, followed by the command officer.

You approach this incident from the west on Schneider Court. Watch the first 01:00 of the incident simulation video (Hartin, 2025) and examine Figure 8 illustrating conditions on arrival.

¹ If your company staffing is different, use your own staffing level.

² If your first alarm deployment is different, use your own resource assignment and staffing.

Figure 8. Conditions on Arrival



Note: Adapted from Hartin, E. (2025) *10-minute training 25-45 incident simulation* [Fire Studio 7 video]. <https://bit.ly/4oGsJsr>. Google. (2021). [Street view 35850 Schneider Court, Avon, OH]. ©2025 Google. <https://bit.ly/4nnp9SY>.

2. State your initial radio report (IRR) exactly as you would transmit it to dispatch.

3. What specific actions would you take (as the company officer) immediately upon arrival and exiting the apparatus and what task orders would you give your crew?

A facility representative meets you at the westernmost entrance to the facility and advises that they do not know exactly what chemical reaction is occurring, but there is no fire and that he thinks the vapor cloud is mostly steam, but that it may contain ethylenediamine, toluene and other solvents. They have evacuated the facility, and he believes that all employees have evacuated. They provide you with Safety Data Sheets (SDS) for ethylenediamine, and toluene. You are unable to directly access Side Charlie due to size and conditions. However, Side Charlie is visible from the rear of Ohio Container Services at 1165 Center Road.

Use the following reference resources as needed: Safety Data Sheets (SDS) for [Ethylenediamine](#) (ThermoFisher Scientific, 2015) and [Toluene](#) (ThermoFisher Scientific, 2009), [Emergency Response Guidebook](#) (US DOT, 2024), [Pocket Guide to Hazardous Chemical Hazards](#), and [CAMEO Chemicals](#) (NOAA, 2024) to as needed to inform your decision making.

4. Would you change the action you are taking or modify the assignments given to your crew? If so, what task orders would you provide?
5. State your follow up report exactly as you would transmit it to dispatch.
6. Engine 2 arrives and reports that they are Level 1 on a hydrant at Center Road and Schneider Court. State the tactical assignment you would give them exactly as you would transmit it.
7. Ladder 1 arrives and reports that they are Level 1 at Center Road and Schneider Court. State the tactical assignment you would give them exactly as you would transmit it.
8. Based on anticipated effectiveness of your tactical operations, state your conditions, actions, and needs (CAN) report that you would provide to the first arriving command officer as part of command transfer to IC #2.

Note: If you assigned the second arriving engine or first arriving ladder to perform reconnaissance from the rear of Ohio Container Services, the command officer will arrive prior to their report.



Reflect on your strategic decision-making and responses to questions one through eight before answering the next six questions. Think about what cues, patterns, or anomalies (differences from conditions that you would anticipate) inform your answers.

9. What was the problem?

10. What was getting in the way of achieving your tactical priorities?
11. Was there anything in this incident that could have hurt or killed you (right now)?
12. Was it reasonable to believe that facility was occupied?
13. Was there searchable space?
14. If you believed it was reasonable that the facility was occupied and there was searchable space, what could you do about it?

The next several questions ask you to think about how you made sense of the information provided by the facility representative and your observations.

15. Did you find the information presented by the facility representative to be credible? Why or why not?
16. There were multiple hazmat reference resources provided with this 10-Minute Training, which of these resources (if any) did you use? How did you decide and were they useful?
17. What was your initial isolation distance (hot zone boundary) and how did you determine it?
18. Did you address potential downwind exposures? If so, what action did you take and/or what needs did you identify in your transfer of command conditions, actions, and needs (CAN) report?

In the actual incident, the fire and law enforcement resources, Isolated Schneider Court in the immediate area of the facility and evacuated the commercial occupancies to the south of Schneider Court and north of Interstate 90 to the east and west of Center Road. The Lorain County Hazmat Team responded to provide technician level reconnaissance and atmospheric monitoring.

A worker at ReWorld™ accidentally mixed three chemicals that caused a release of “primarily water vapor” that may have included ethylenediamine, toluene and other solvents...The chemical reaction continued throughout the day, eventually ending the next morning... [A spokesperson from] ReWorld™ said the accident occurred after another company shipped the wrong chemical or mislabeled a container (Daprile, 2025)

The fire department contacted the Ohio EPA. Upon completion of their investigation, the local Avon fire department, police department and representatives from the city of Avon left the facility as no further action was needed... The company said there is a possibility that a visible vapor cloud may continue until the process cycles through to its conclusion. We continue to monitor the vapor and surrounding area and have not detected any constituent of concern (Roeser, 2025).

Additional Learning: Take the opportunity to review the hazardous material references available on your apparatus and how they can inform your decision making during the initial stages of a hazmat incident.

It is easy to become overwhelmed with information obtained from hazardous materials references. The Emergency Response Guidebook (US DOT, 2024) is the simplest, and quickest reference. However, the ERG is indexed by proper shipping name and UN ID Number (so it is not useful for trade name materials). The ERG is intended for use in transportation incidents and may or may not be as useful for incidents occurring at fixed facilities. Watch [How to Use the ERG: A Complete Guide \(2024\)](#) for a solid review of this hazmat reference.

The green pages of the Emergency Response Guidebook (US DOT, 2024) identify specific initial isolation distances and downwind protective action distances for hazardous materials classified as toxic inhalation hazard (TIH) materials. For all other hazardous materials, initial isolation distances are identified in the orange guide pages. The guide pages identify initial isolation distances based on the hazardous material’s state of matter: Solids-75’, liquids-150’, and gases 300’.

Think about how state of matter impacts dispersion of hazardous materials and discuss how these basic initial isolation distances can be used when dealing with unknown, but potentially hazardous materials.

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