# In-Station Training

***TM 23-42 Railcar Leak***

## Author

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## Purpose

Hazardous materials incidents can present a challenging puzzle to the first arriving companies. Information is often limited, and IC #1 is confronted with the need to develop situational awareness from limited cues.

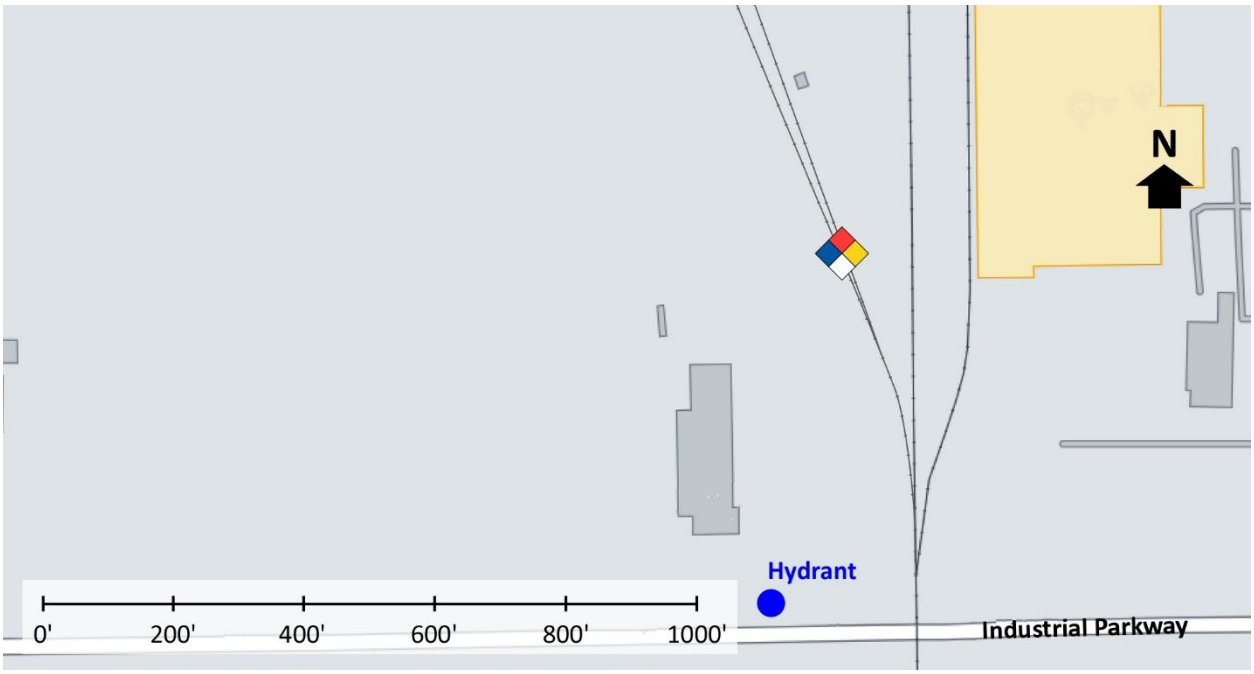
## Learning Outcomes

Firefighters and officers perform an effective size-up; select an appropriate strategy, and implement tactics based on the strategic decision-making model when dealing with hazardous materials incidents.

## Conducting the Drill

This incident involved a report of a leaking railcar and vapor cloud at Linder Oil Company located at 820 Industrial Parkway, Ossian, Indiana on January 14, 2019, at 01:20 (WANE 15 News, 2019 & Wane.com, 2019). Review the map and photos (Figures 1-7) to gain an understanding of the area and building involved.

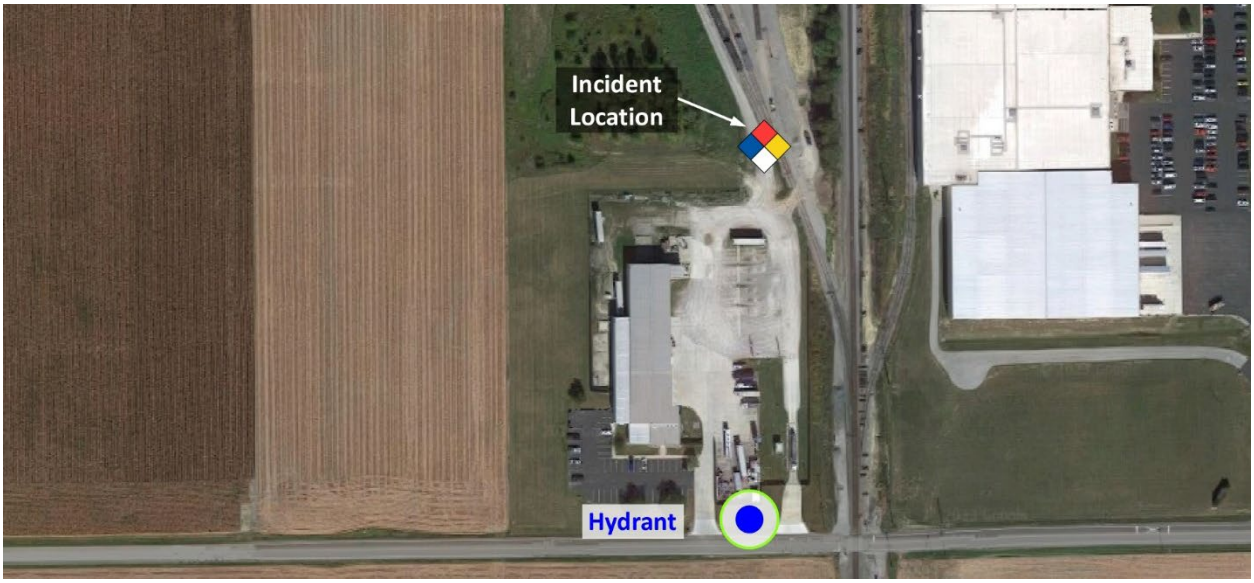
Figure 1. Map of the Incident Area




*Note:* Adapted from Google. (2023a). [map, 820 Industrial Parkway, Ossian, IN]. https://bit.ly/48ul7kf.

The closest hydrant is located on Industrial Parkway at the entrance to Linder Oil as illustrated in Figures 1 and 2. Exposure Delta 1 is a a clothing manufacturing factory and outlet store.

Figure 2. Aerial View




*Note:* Adapted from Google. (2023b). [aerial view, 820 Industrial Parkway, Ossian, IN]. https://bit.ly/3ZvolRv.

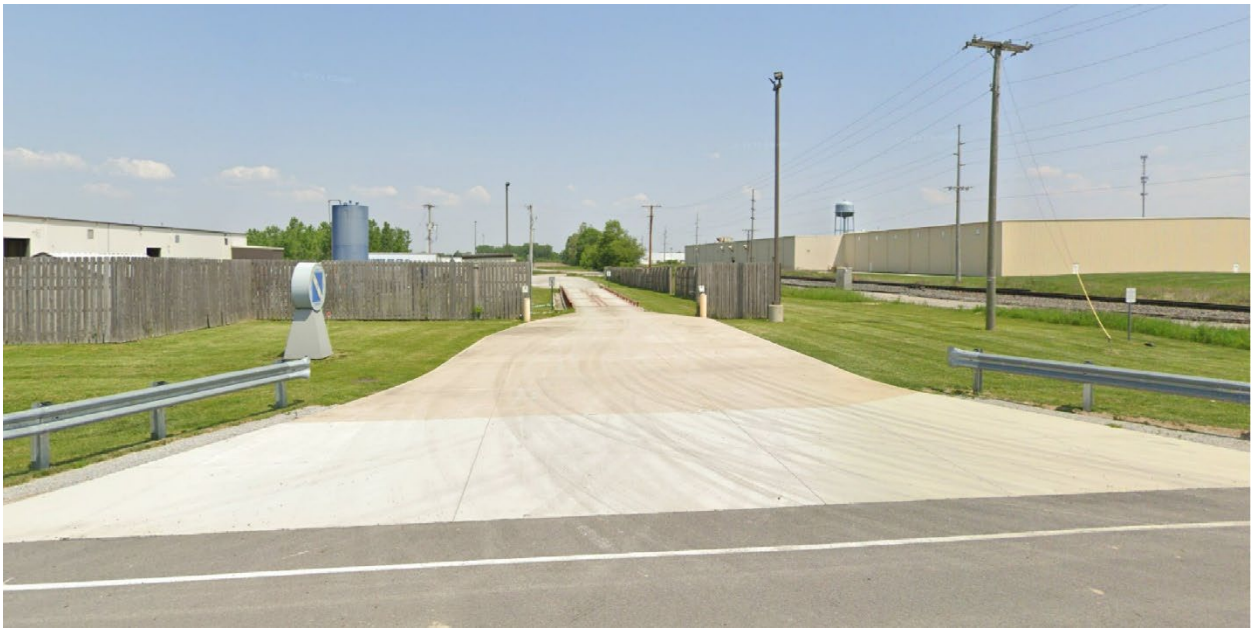
Figure 3. Alpha/Bravo Corner (Looking NE From Industrial Parkway)

*Note:* Adapted from Google. (2023c). [street view, 820 Industrial Parkway, Ossian, IN]. https://bit.ly/46f6bGc.

Figure 4. Side Alpha (Main Entrance to Linder Oil from Industrial Parkway)

*Note:* Adapted from Google. (2023d). [street view, 820 Industrial Parkway, Ossian, IN]. https://bit.ly/48CJkGu.

Figure 5 Alpha/ Delta (Truck Entrance to Linder Oil from Industrial Parkway)

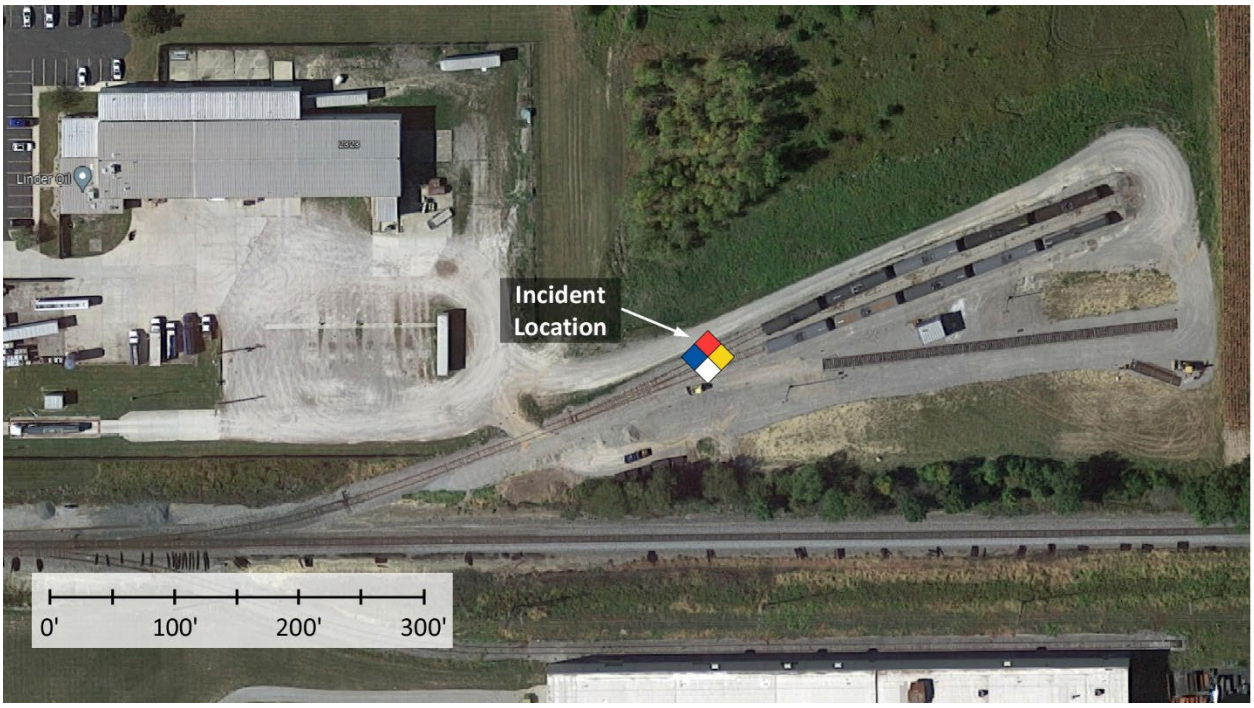


*Note:* Adapted from Google. (2023e). [street view, 820 Industrial Parkway, Ossian, IN]. https://bit.ly/3ZAtoQY.

Figure 6. Alpha/Delta (Rail Line and Linder Oil Rail Sidings from Industrial Parkway)


*Note:* Adapted from Google. (2023f). [street view 820 Industrial Parkway, Ossian, IN]. https://bit.ly/3ZB4vo7.

Figure 7. Detail Aerial View of the Incident Location




*Note:* Adapted from Google. (2023g). [aerial view, 820 Industrial Parkway, Ossian, IN]. https://bit.ly/48oFm42.

You have been dispatched to Linder Oil at 820 Industrial Parkway for a report of a vapor cloud from a leaking rail tank car. You are the company officer or AIC of the first arriving engine and have your company's typical staffing. The temperature is 12° F with no appreciable wind from the north (Weather Underground, 2019).

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

While responding you hear a command officer and another engine with typical staffing for your agency go enroute. The second engine will arrive approximately 10 minutes after you, followed by the command officer. You will be approaching from the east on Industrial Parkway.

Use the *2020 Emergency Response Guidebook* (DOT, 2020) and *Pocket Guide to Chemical Hazards* (NIOSH, 2020) to inform your strategic and tactical decision-making.

2. How will you define the initial isolation area (hot zone)?

There is no pre-arrival video for this incident. Examine Figure 8 illustrating conditions on arrival.

Figure 8. Conditions on Arrival

Note: Adapted from WANE 15 News. (2019). *Linder Oil Company train car leak false alarm* [video]. https://bit.ly/3ripteW

Using binoculars, you obtain the view of incident conditions illustrated in Figure 9.

Figure 9. Magnified View of Incident Conditions

Note: Adapted from WANE 15 News. (2019). *Linder Oil Company train car leak false alarm* [video]. https://bit.ly/3ripteW

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

4. 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?

The dispatcher reports that a responsible party from Linder Oil is enroute with an estimated time of arrival (ETA) of 30 minutes.

5. Would you change the action you are taking or modify the assignments given to your crew? If so, what task orders would you provide?

6. State your update report exactly as you would transmit it to dispatch.

7. State the tactical assignment you would give the next arriving engine exactly as you would transmit it.

8. Based on the 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?

Answer the following questions to examine how you used the resources available to aid in development of the initial incident action plan as well as your choice of strategy and tactics for this incident.

9. What guide number did you reference in the *2020 Emergency Response Guidebook* (ERG) (DOT, 2020)? Was the information useful and how did it inform your decision-making in this incident?

10. Was the *NIOSH Pocket Guide to Chemical Hazards* (NIOSH, 2020 useful and if so how did it inform your decision-making in this incident?

11. Did you approach the tank car to perform reconnaissance? Why or why not? If you chose to do so, what personal protective equipment and atmospheric monitoring devices did you use? Why?

12. What additional resources did you request (if any) and why did you request these specific resources?

**Additional Learning:** There are similarities and differences between responding to hazardous materials incidents involving a rail tank car that is part of a train and one which is on a siding at a fixed facility such as in this incident. When part of a train, rail tank cars should be placarded, and the train crew should be able to provide documents that will aid in identifying the material involved. Shipping papers may include:

- Railroad-produced documents – for example, train consists, train lists, wheel reports, waybills, industry work orders, or other similar documents.
- Customer-produced documents – for example, bills of lading [including United Parcel Services (UPS) hazardous materials packets], or switch lists.
- Connecting carrier's documents.
- A hand-printed document (printed, not cursive letters) – for example, radio waybills.
- A hazardous waste manifest (AAR, 2011).

Rail tank cars at a fixed facility may or may not be placarded and will not have shipping papers (as they are not in transit). The facility must have a safety data sheet (SDS) available for the product, but the SDS may not be immediately available if the incident occurs after hours.

Absent the proper shipping name, use of the *Emergency Response Guidebook* (ERG) (DOT, 2020) in rail tank car incidents is limited to the rail car identification chart or the table of markings, labels, and placards. Take a few minutes to review these references in the *ERG* and consider the following problem.

Based on the cues visible in Figure 10, which guide page in the Emergency Response Guidebook (DOT, 2020) would you use?

Figure 10. Rail Tank Car.


Note: Adapted from Wikipedia. (2023). *Tank car*. https://bit.ly/48sSMff.

As this is a non-pressure/low-pressure tank car but the specification numbers are not visible, either Guide 131 or Guide 128 might be a reasonable choice. What are the differences between these two Guide Pages? Why would you choose one page over the other?

***The Rest of the Story:*** This incident was described in the press as a "false alarm" as the visible vapor cloud was condensing steam.

For extra credit, what National Fire Incident Reporting System (NFIRS) incident type and coding would be appropriate when completing the incident report for this incident? Is this a 400 Hazardous Condition No Fire, 600 Good Intent, or 700 False Alarm and False Call? What three-digit incident type code should be used? See the *National Fire Incident Reporting System Complete Reference Guide* (USFA, 2015) pages 3-21 to 3-28 to identify the answers to these questions.

## References

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