



In-Station Training

TM 26-07 Motor Vehicle Crash-Propane Bobtail



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Purpose

Sometimes during an emergency response, things go like clockwork. In other cases, they do not. Incident commanders need to anticipate potential problems and have the capability to address them should they occur. This requires adequate resource deployment and contingency planning.

Learning Outcomes

Initial incident commanders 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 rollover of a bobtail propane delivery truck in the 2400 block of North State Road 3 in LaGrange, Indiana on Friday, February 24, 2023, at 07:50 (Bebout, 2023 & Mohr, 2023). Review the map and photos (Figures 1-5) to gain an understanding of the vehicle and area involved.

Figure 1. Map of the Incident Area



Note: Adapted from Google. (2026a). [Map, 2471 N State Rd 3 LaGrange, IN]. Map data ©2026 Google. <https://bit.ly/4c2EhDa>.

There are no hydrants in the area. The closest water tender fill point is at the Pretty Lake Public Ramp as illustrated in Figure 1.

Figure 2. Aerial View



Note: Adapted from Google. (2026b). [Aerial view 2471 N State Rd 3 LaGrange, IN]. Imagery © Google, Imagery © Airbus Maxar Technologies, Map Data © 2026. <https://bit.ly/46qnxID>.

Figure 3. Northbound on North State Road 3



Note: Adapted from Google. (2023a). [Street view 2471 N State Rd 3 LaGrange, IN]. ©2025 Google. <https://bit.ly/49Vo6q4>.

Figure 4. Southbound on North State Road 3



Note: Adapted from Google. (2023b). [Street view 2471 N State Rd 3 LaGrange, IN]. ©2025 Google. <https://bit.ly/4a5WnSb>.

This incident involved a bobtail propane delivery truck with a MC-331 cargo tank like the one illustrated in Figure 5.

Figure 5. Bobtail Propane Delivery Truck



Note: Adapted from Lux Industries. (2026). New & Pre-Owned (Used) Propane Trucks for Sale. <https://bit.ly/45Lmk8m>

The area where this incident occurs is a rural agricultural area with low building and population density. Buildings in this area are predominantly single family homes and agricultural buildings. (Open AI, 2026). The frequency of fire and emergency medical incidents in this area is low.

The temperature is currently 27° F with wind from the northwest at 7 mph. (Weather Underground, 2023). **You are the officer of the first arriving engine company.** It is Friday, February 24th and you are dispatched to a rollover vehicle crash in the 2400 block of North State Road 3 along with a medic unit and command officer at 07:50. The engine has four-person staffing¹.



Time starts now! Answer the first eight questions within the next 10 minutes. Save discussion for after answering these questions.

While responding, you hear the medic unit, and command officer go enroute and dispatch provides an update that this incident involves a propane bobtail delivery truck, the driver is out of the truck with minor injuries, and he does not think that the truck is leaking.

1. What critical factors would you consider when dispatched and during response? What conversations would you have with your crew during response? Would you change the resource determination? If so, what additional resources would you request prior to arrival?



Important! Answer questions two through eight in the form of communication you would have with your crew, dispatch, other companies, and the first arriving command officer. State the communications exactly as you would say them face-to-face or over the radio. Save explanation or discussion until after you have completed these questions.

You will arrive from the south (heading northbound). You anticipate the medic unit will arrive shortly after you from the north. The command officer will arrive 8 minutes after you. If you have requested additional resources, they will arrive after the command officer. Watch the first 00:20 of the [incident simulation video](#) (Hartin, 2026) and examine Figure 6 illustrating conditions on arrival. Click the link above or scan the QR code to access the video.

¹ If your first alarm deployment is different, use your own resource assignment and staffing.

Figure 6. Conditions on Arrival



Adapted from Hartin, E. (2026) *10-minute training 26-07 incident simulation* [Fire Studio 7 video].

<https://bit.ly/4qdOH6w>.

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?

Use the following reference resources as needed: [Emergency Response Guidebook](#) (US DOT, 2024), [Pocket Guide to Hazardous Chemical Hazards](#), and [CAMEO Chemicals](#) (NOAA, 2024) 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. Medic 1 arrives and reports that they are Level 1 on North State Road 3 at East 200 South. State the tactical assignment you would give them exactly as you would transmit it.

In the next segment of the incident [simulation video](#) (Hartin, 2026) , you proceed to the rolled over propane bobtail truck to investigate and contact the driver, watch the incident simulation video (Hartin, 2026) from 00:20 to 01:20 before answering the next question.



7. The driver reports that he was restrained and other than being shaken up, he is uninjured and states that he does not think that any propane is leaking. What action will you take based on atmospheric monitoring readings, the driver's report, and observation of the vehicle?

If you choose to remain at the propane bobtail, continue with the next question. If you decide to return to your apparatus, watch the next segment of the [incident simulation video](#) (Hartin, 2026) from 01:20 to 02:00 before answering the remaining questions.



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.



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

9. What was the problem?
10. What were your tactical priorities and what was getting in the way of achieving them?
11. Was there anything in this incident that could have hurt or killed you (right now)?

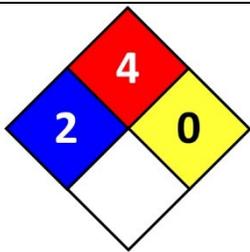
12. What was your initial isolation distance and how did you determine it?

13. Did you consider protective actions such as evacuation beyond the initial isolation distance? If so, what were the influencing factors? If you took protective actions outside the initial isolation distance (or identified this need in your transfer of command CAN), how far did (or would) your protective action distance extend? What factors influenced this decision?

14. What potential problems could arise as this incident progresses and the towing and recovery company contracted by the propane distributor rights the truck and prepares it for towing? What contingency plans would you anticipate that IC #2 would put in place to address these potential problems.

Additional Learning: Propane (C₃H₈) is a flammable hydrocarbon gas. It is a gas at standard temperature and pressure, but compressible to a transportable liquid. Propane is commonly used as a fuel gas. Review the characteristics of propane identified in Table 1 with the members of your crew.

Table 1. Characteristics & Physiological Effects of Propane

Product Name (UN/NA ID) Propane (1075)		Formula C ₃ H ₈	NAERG Guide 115	
Description Colorless, tasteless, odorless, heavier than air, flammable gas. As propane is odorless, ethyl mercaptan is added to provide a distinctive “gas” odor.				
Molecular Weight 44.09	Vapor Density 1.5	Specific Gravity 0.59 @ 60° F	Vapor Pressure 124.9 @70° F	Ionization Potential 14.01 eV
Solubility n/a	Flash Point n/a (gas)	LFL 2.1 %	UFL 9.5 %	Ignition Temperature 920° F (493° C)
TLV-TWA (ACGIH) 1000 ppm (5% LEL)	STEL (15 min) n/a	IDLH 2100 ppm (10% LEL)	Routes of Entry Inhalation, Contact (Liquid)	
Physiological Effects Propane is a simple asphyxiant and rapid evaporation of propane liquid on the skin will result in rapid cooling.				

Continued

Table 1. Characteristics & Physiological Effects of Propane (Continued)

Symptoms of Exposure
Inhalation of propane may result in dizziness, confusion, excitation, or asphyxia; Contact with propane liquid may result in frostbite
Other
Propane containers may present risk of a boiling liquid expanding vapor explosion (BLEVE) if the container is damaged (typically due to mechanical harm) or thermally stressed (due to flame contact above the vapor space). Note that a BLEVE does not require fire or flame impingement prior to container failure (mechanical damage and an increase in ambient temperature may result in a BLEVE).

Figure 7 illustrates a typical propane bobtail delivery truck with a 3,499-gallon tank. Review these features with the members of your crew and if possible, visit a propane distributor to get an up close look at this type of vehicle.

Figure 7. Propane Bobtail Delivery Truck



Note: Adapted from Lin’s Propane Trucks. (2024). *Propane delivery truck*. <https://bit.ly/3WeeJLH>.

MC 331 cargo tanks in propane delivery service are commonly called bobtail delivery trucks due to their relatively short length (in relation to a MC 331 tank trailer). Bobtails are typically 33,000 lb. gross vehicle weight (GVW), straight chassis trucks, but size can vary. Typical tank sizes are between 2,600 gallons and 5,000 gallons. Bobtail delivery trucks are equipped with a pump, meter to measure propane delivered to a customer, and a hose reel to transfer propane to cylinders and tanks.

References

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