



In-Station Training

TM 25-04a Rural Commercial Fire



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Purpose

Fixed critical fireground factors can be identified prior to an incident. Formal pre-plans are essential in effective response to complex occupancies. However, effective response to residential occupancies is often dependent on informal pre-planning; observation, discussion, and consideration of building layout and configuration when responding to other types of incidents or previous fire responses.

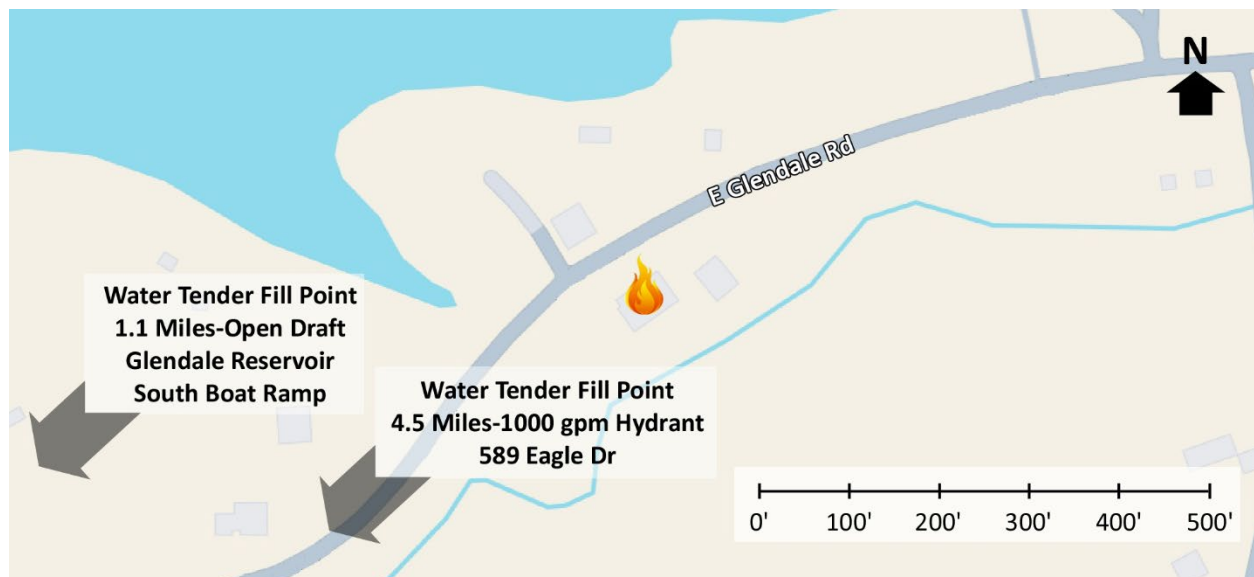
Learning Outcomes

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

Conducting the Drill

This incident involved a commercial fire at 3378 E Glendale Road in Preston, Idaho on Monday November 25, 2024, at 14:09 (Scanner02, 2024, Franklin Fire Company, 2024, & Franklin County Free Press, 2024). Review the map and photos (Figures 1-4) to gain an understanding of the area and building involved.

Figure 1. Map of the Incident Area



Note: Adapted from Google. (2024a). [Map, 3378 E Glendale Road, Preston, ID]. <https://bit.ly/3VO1HDs>.

Figure 2. Aerial View



Note: Adapted from Google. (2024b). [Aerial view 3378 E Glendale Road, Preston, ID].
<https://bit.ly/4glXE9R>.

There are no hydrants in the immediate vicinity. The closest water supply point is an open draft site at the Glendale Reservoir Boat Ramp and the closest hydrant 4.5 miles away at 589 Eagle Drive as illustrated in Figure 1.

Figure 3. Alpha/Delta Corner



Note: Adapted from Google. (2012a). [Street view 3378 E Glendale Road, Preston, ID].
<https://bit.ly/3P7dDML>.

Figure 4. Alpha/Bravo Corner



Note: Adapted from Google. (2012b). [Street view 3378 E Glendale Road, Preston, ID].
<https://bit.ly/3BxeflC>.

The temperature is currently 44° F with no appreciable wind from the north (Weather Underground, 2024). It is Monday November 25th, and you have been dispatched along with three engines, two water tenders, a ladder company, and a medic unit, at 14:09 to 3378 E Glendale Road for a commercial fire. The engines and ladder have four-person staffing and the water tenders are cross staffed with the engines (engines responding along with a tender split staffing with three on the engine and one on the tender)¹. You are responding to this incident as the first arriving command officer.



Time starts now! Answer the first eight questions within the next 10 minutes. After answering question 1, decide and put your answers in the form of communication you would have with the companies assigned to this incident. Save discussion for after answering the first eight questions.

1. What critical factors would you consider when dispatched and during response?

¹ If your first alarm deployment is different, use your own resource assignment and staffing with the first and second arriving resources typical for your agency (e.g., two engines vs. engine and ladder).

You hear three engines, two water tenders, a ladder company, and a medic unit go en route. You will arrive from the southwest on East Glendale Road shortly after the first engine. The ladder company will arrive from the same direction three minutes after you arrive. The second engine and a water tender will arrive from the southwest five minutes after you.

While you are responding, dispatch advises that the caller reported a fire in their shop, that there have been multiple explosions and that the shop contains multiple acetylene cylinders and that there are propane tanks next to the shop.

Engine 1 arrives and provides the following initial radio report.

On-scene of a small, one-story shop with defensive fire conditions. Stretching an attack line on Side Delta for fire control, defensive strategy, continue the assignment, Engine 1 is Glendale Command.

Engine 1 provides the following follow-up report:

No 360 due to fire conditions and explosions, one story all sides, no basement, unable to control power and propane located on Side Alpha, continuing defensive, Engine 1 is accountability on Side Delta.

Watch [incident video](#) (Fire 100 Response Films, 2024) from 03:50 to 04:50 and examine Figure 5, illustrating conditions on arrival.

Figure 5. Conditions on Arrival



Note: Adapted from Fire 100 Response Films. (2024). *Responding to a commercial structure fire* [video]. <https://bit.ly/3VSNhSt>.

Reference materials include the [Emergency Response Guidebook](#) (US DOT, 2024) and [Pocket Guide to Hazardous Chemical Hazards](#) (NIOSH, 2020).

2. What actions will you take prior to contacting IC #1 (Engine 1) to begin command transfer?
3. State your command transfer communication after IC #1 acknowledges your radio contact (exactly as you would transmit it).

Following your confirmation of the location and assignment of Engine 1 and request for a conditions, actions, and needs (CAN) report, IC #1 provides the following CAN:

Multiple explosions, and audible cylinder venting in the shop, stretching an attack line on Delta for fire control, need water supply.

4. State the communication you would have with IC #1 and dispatch to complete the command transfer (exactly as you would transmit it).
5. What action would you take based on the CAN from Engine 1 (IC #1)? State the communications you would have with the operating companies exactly as you would transmit them.
6. Ladder 1 arrives and reports that they are Level 1 to the east. State the tactical assignment you would give them exactly as you would transmit it.
7. Engine 2 arrives and reports that they are Level 1 southwest on Glendale Road with Water Tender 2. State the tactical assignments you would give Engine 2 and Water Tender 2 exactly as you would transmit them.

8. Engine 3 arrives and reports that they are Level 1 southwest on Glendale Road with Water Tender 3. State the tactical assignments you would give Engine 2 and Water Tender 2 exactly as you would transmit them.



Reflect on your strategic decision-making and responses to questions one through eight before answering the next six questions. Give some thought to 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 the Main Fire Occupancy was occupied?
13. Was there searchable space?
14. If you believed it was reasonable that the building was occupied and there was searchable space, what could you do about it?

Watch the [incident video](#) (Fire 100 Response Films, 2024) from 06:00 to 09:30 before answering the next several questions.

15. Did you use the Emergency Response Guidebook and/or the NIOSH Pocket Guide to Chemical Hazards as a reference? If so, how did the reference information impact your incident action plan?

16. Did you modify the Engine 1's resource determination (three engines, one ladder, two water tenders, and medic unit and command officer)? If so, what did you do and why?

17. The first arriving engine deployed a 1 ¾" attack line and operated from a defensive position (outside the collapse zone). Was this line effective in controlling the fire? What were the risks presented by the positioning of the initial attack line?

18. How would you have approached overhaul given the condition of the building and potential presence of fire damaged cylinders of acetylene?

Additional Learning: Acetylene is extremely flammable and has a wide flammable range (2% to 100%), in addition it may polymerize due to heating and will decompose when subjected to heating and increased pressure. Watch [Acetylene Van Explosion Research](#) (Solutions from HSE). This video illustrates the power of an explosion resulting from ignition of a mixture of acetylene and air inside a van.

Acetylene cylinders are considerably different than those used for other compressed gases. Read [First Responder Assessment of Acetylene Cylinders](#) (Chemically Speaking, LLC, 2023). Watch [Why Acetylene Gas Cylinders Are Different](#) (Cylinder Recyclers, 2020) to gain an understanding of the characteristics of acetylene cylinders.

The [Fire and Rescue Service Operational Guidance Incidents Involving Hazardous Materials](#) (CFRA, 2012) are an excellent source of information on response to incidents involving acetylene cylinders, recommendations include (but is not limited to):

- Cool the cylinder for one hour if it is accessible to direct application of water and longer if it is shielded from direct application).
- Monitor to determine if the cylinder has been cooled (using application of water and observation of evaporation or using a thermal imaging camera).
- If the cylinder has been adequately cooled, continue monitoring for an additional hour (at 15-minute intervals).
- If the cylinder temperature increases during monitoring, return to cooling for an additional hour and then resume monitoring.

For detailed information on acetylene cylinders involved in fire or subjected to thermal exposure, see [Fire and Rescue Service Operational Guidance Incidents Involving Hazardous Materials](#) (CFRA, 2012) pages. 323-333.

Consider this additional information provided on the hazards of acetylene and acetylene cylinder response procedures. Would this information have changed your incident action plan. If so, how?

References

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