Propane leak in a residence

HazSim® Hazmat Training Simulation System

Operation level

Objectives

1. **Identify the hazard**
2. **Establish a hot zone (as per AHJ)**
3. **Determine the concentration present**
4. **Determine evacuation/shelter in place needs**
5. **Determine source of leak/proper search techniques**

As instructor, do not stand right near the students, give them some space to learn.

NFPA line items:

NFPA 470 9.7.1
NFPA 1001 4.3.21

Questions for Participants

1. What is the vapor density of propane?
   1.55
2. What is the response time (t90) of the LEL sensor ?
   Varies by manufacturer
3. What is the correction factor for propane?
   Varies by manufacturer

Location suggestions

Outside/Inside a building

HazSim meter to be selected:

Any detector with an LEL sensor.

Equipment required:

- HazSim system
- Full PPE, SCBA
- Radios
- Scene, flagging tape

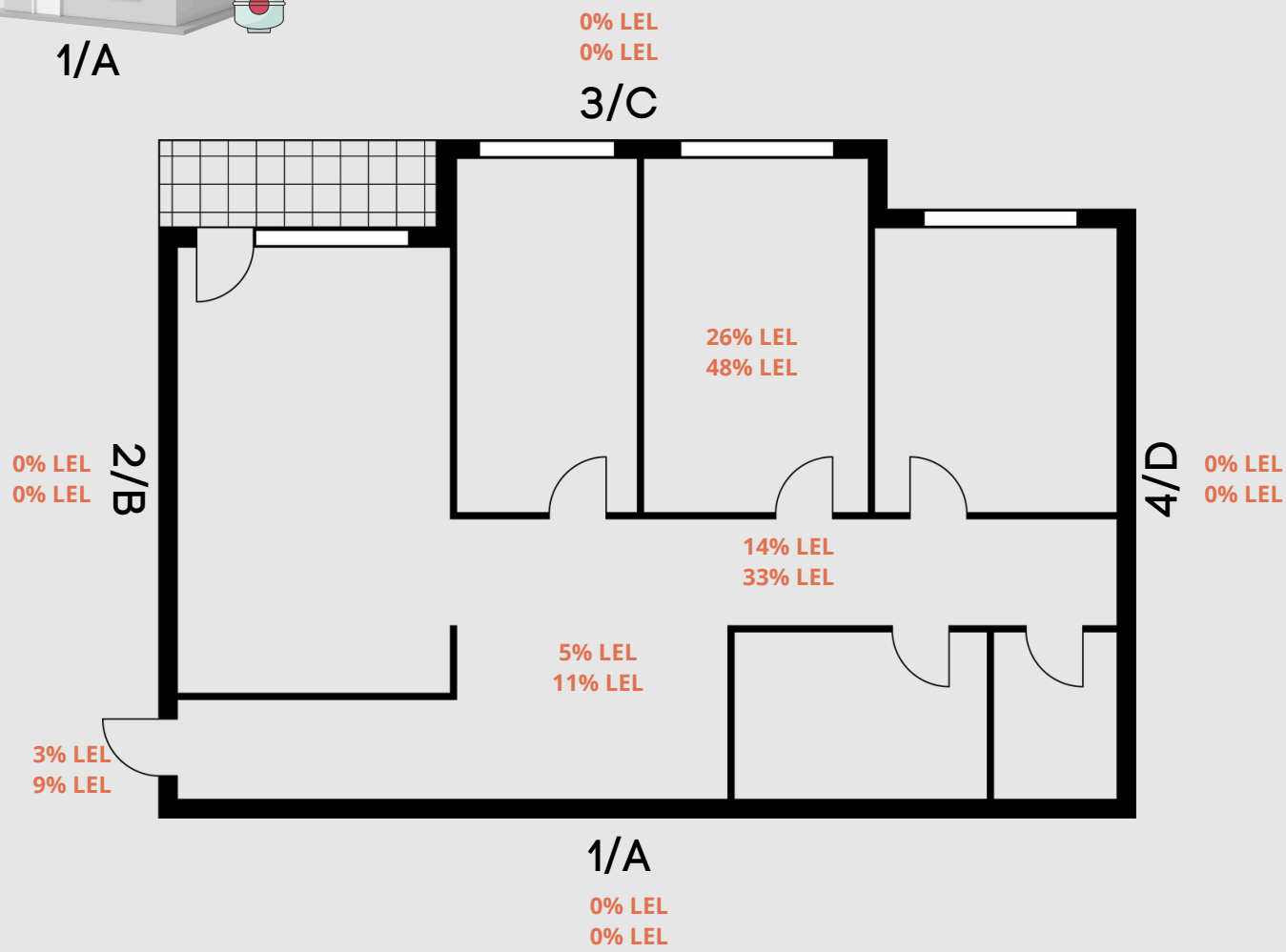
Scenario

Your crew is responding to a possible propane leak inside a building. Earlier today, workers felt lightheaded while working in the basement. The building supervisor reports frost on the bottom half of the tank and on the ground. There is no reported smell. The tank was filled a few days ago.

Readings Timeline

1/A

In this scenario, only the LEL will change. Higher readings will be located at floor levels due to the denser gas. Give zero readings where there is no gas, and raise the readings in the areas where gas could collect.



Training Tips

1. Emphasize that propane will accumulate low near the ground.
2. Explain that odorant (Methy/ethyl mercaptan) can fade or get scrubbed by soil and concrete.
3. Firefighter should be aware of AHJ action levels and take action when detectors goes into alarm.

Visit HazSim.com/Training for more training ideas and resources

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