Flammable Liquid Leak from a Pipe



Technician Level

Objectives

- 1 Identify the hazard
- 2 Establish a hot zone (as per AHJ)
- 3 Determine the concentration present
- 4 Mitigate the release

NFPA line items:

NFPA 470 11.2.2 NFPA 470 11.4.3.2



Consult the AHJ

2 How many seconds should you add to your response time while using a sampling probe?

1-2 seconds per loot

3 What is the correction factor for the chemical leaking?

Location suggestions

Outside, near a sewer manhole. Ideally with a few others on site.

HazSim meter set to be selected:

Any 5-Gas meter with a PID

Equipment required:

- HazSim System
- Leaking Pipe Prop



Scenario

A flammable liquid is leaking from a pipe/flange at a local chemical plant. The liquid is starting to pool and reach a manhole.

Readings Timeline

50 feet from leak:

Sensor	Oxygen	% LEL	CO	H2S	PID	
High	20.9	0	0	0	0	
Low	20.9	0	0	0	5-7	

20 feet from leak:

Sensor	Oxygen	% LEL	CO	H2S	PID	
High	20.9	0	0	0	0	
Low	20.9	2	0	0	75	

10 feet from leak:

Sensor	Oxygen	% LEL	CO	H2S	PID	
High	20.9	0	0	0	23	
Low	20.9	19	0	0	758	

10 feet from leak (after foam application): :

Sensor	Oxygen	% LEL	CO	H2S	PID	
High	20.9	0	0	0	0	
Low	20.9	2	0	0	59	

In remote manhole (bottom):

Sensor	Oxygen	% LEL	CO	H2S	PID	
High	20.9	3	0	0	75	
Low	20.9	11	0	0	350	

Training Tips



Emphasize that vapors will accumulate in depression and low lying areas

2

Participants should monitor inside the manhole prior to opening the cover



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



