

Toxic Threat Zone

Time: April 3, 2012 1058 hours ST (user specified)

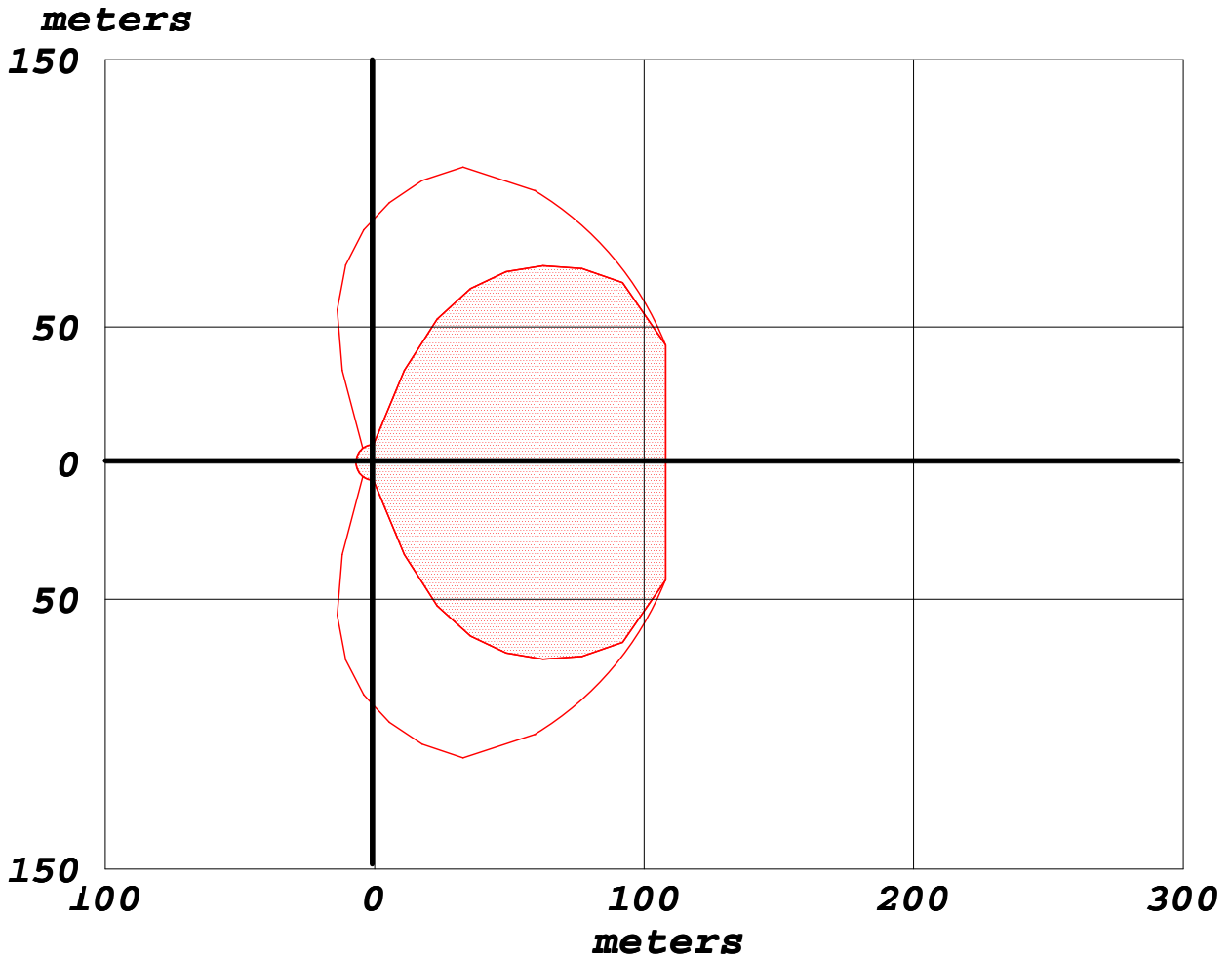
Chemical Name: METHANE



Wind: 2.8 meters/second from 315° true at 10 meters

THREAT ZONE:

Model Run: Heavy Gas

Red : 109 meters --- (30000 ppm)



-  **greater than 30000 ppm**
-  **Confidence Lines**

**SITE DATA:**

Location: MORA, PORTUGAL
Building Air Exchanges Per Hour: 0.30 (unsheltered double storied)
Time: April 3, 2012 1058 hours ST (user specified)

CHEMICAL DATA:

Chemical Name: METHANE **Molecular Weight:** 16.04 g/mol
PAC-1: 2900 ppm **PAC-2:** 2900 ppm **PAC-3:** 17000 ppm
LEL: 50000 ppm **UEL:** 150000 ppm
Ambient Boiling Point: -161.6° C
Vapor Pressure at Ambient Temperature: greater than 1 atm
Ambient Saturation Concentration: 1,000,000 ppm or 100.0%

ATMOSPHERIC DATA: (MANUAL INPUT OF DATA)

Wind: 2.8 meters/second from 315° true at 10 meters
Ground Roughness: open country **Cloud Cover:** 5 tenths
Air Temperature: 22° C **Stability Class:** B
No Inversion Height **Relative Humidity:** 25%

SOURCE STRENGTH:

Leak from short pipe or valve in horizontal cylindrical tank
Flammable chemical escaping from tank (not burning)
Tank Diameter: 2 meters **Tank Length:** 9.55 meters
Tank Volume: 30 cubic meters
Tank contains liquid **Internal Temperature:** -160° C
Chemical Mass in Tank: 12,609 kilograms
Tank is 100% full
Circular Opening Diameter: 10 centimeters
Opening is 0 meters from tank bottom
Release Duration: 25 minutes
Max Average Sustained Release Rate: 634 kilograms/min
(averaged over a minute or more)
Total Amount Released: 12,609 kilograms
Note: The chemical escaped as a mixture of gas and aerosol (two phase flow).

THREAT ZONE:

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