

Modélisation de la dispersion atmosphérique des
toxiques en cas d'incendie de trois cellules de
stockage de produits combustibles pour un total de
24 000 m²

Incendie de trois cellules de stockage
Dispersion des suies
Condition A, vent 2 m/s

SITE DATA:

Location: HEUDEBOUVILLE, FRANCE
Building Air Exchanges Per Hour: 0.42 (unsheltered single storied)
Time: March 12, 2019 0931 hours DST (using computer's clock)

ATMOSPHERIC DATA: (MANUAL INPUT OF DATA)

Wind: **2 meters/second** from W at 3 meters
Ground Roughness: open country Cloud Cover: 5 tenths
Air Temperature: 20° C **Stability Class: A** (user override)
No Inversion Height Relative Humidity: 50%

SOURCE STRENGTH:

Direct Source: 44.46 kilograms/sec **Source Height: 305 meters**
Release Duration: 60 minutes
Release Rate: 2,670 kilograms/min
Total Amount Released: 160,056 kilograms
Note: This chemical may flash boil and/or result in two phase flow.
Use both dispersion modules to investigate its potential behavior.

THREAT ZONE: (GAUSSIAN SELECTED)

Model Run: Gaussian
Red : **LOC is not exceeded** --- (79 mg/(cu m))
Note: Threat zone was not drawn because the ground level concentrations never exceed the LOC.

Incendie de trois cellules de stockage
Dispersion des suies
Condition F, vent 3 m/s

SITE DATA:

Location: HEUDEBOUVILLE, FRANCE
Building Air Exchanges Per Hour: 0.65 (unsheltered single storied)
Time: March 12, 2019 0932 hours DST (using computer's clock)

ATMOSPHERIC DATA: (MANUAL INPUT OF DATA)

Wind: 3 meters/second from SW at 3 meters
Ground Roughness: open country Cloud Cover: 5 tenths
Air Temperature: 15° C
Stability Class: F (user override)
No Inversion Height Relative Humidity: 50%

SOURCE STRENGTH:

Direct Source: 44.46 kilograms/sec Source Height: 203 meters
Release Duration: 60 minutes
Release Rate: 2,670 kilograms/min
Total Amount Released: 160,056 kilograms
Note: This chemical may flash boil and/or result in two phase flow.
 Use both dispersion modules to investigate its potential behavior.

THREAT ZONE: (GAUSSIAN SELECTED)

Model Run: Gaussian
Red : **LOC is not exceeded** --- (79 mg/(cu m))
Note: Threat zone was not drawn because the ground level concentrations never exceed the LOC.

Incendie de trois cellules de stockage
Dispersion des suies
Condition D, vent 5 m/s

SITE DATA:

Location: HEUDEBOUVILLE, FRANCE
Building Air Exchanges Per Hour: 1.04 (unsheltered single storied)
Time: March 12, 2019 0933 hours DST (using computer's clock)

ATMOSPHERIC DATA: (MANUAL INPUT OF DATA)

Wind: **5 meters/second** from W at 3 meters
Ground Roughness: open country Cloud Cover: 5 tenths
Air Temperature: 20° C **Stability Class: D** (user override)
No Inversion Height Relative Humidity: 50%

SOURCE STRENGTH:

Direct Source: 44.46 kilograms/sec **Source Height: 122 meters**
Release Duration: 60 minutes
Release Rate: 2,670 kilograms/min
Total Amount Released: 160,056 kilograms
Note: This chemical may flash boil and/or result in two phase flow.
Use both dispersion modules to investigate its potential behavior.

THREAT ZONE: (GAUSSIAN SELECTED)

Model Run: Gaussian
Red : **LOC is not exceeded** --- (79 mg/(cu m))
Note: Threat zone was not drawn because the ground level concentrations never exceed the LOC.

Incendie de trois cellules de stockage
Dispersion du Monoxyde de carbone
Condition A, vent 2 m/s

SITE DATA:

Location: HEUDEBOUVILLE, FRANCE
Building Air Exchanges Per Hour: 0.42 (unsheltered single storied)
Time: March 12, 2019 0934 hours DST (using computer's clock)

CHEMICAL DATA:

Chemical Name: CARBON MONOXIDE
CAS Number: 630-8-0 Molecular Weight: 28.01 g/mol
AEGL-1 (60 min): N/A AEGL-2 (60 min): 83 ppm AEGL-3 (60 min): 330 ppm
IDLH: 1200 ppm LEL: 125000 ppm UEL: 742000 ppm
Ambient Boiling Point: -191.5° 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 meters/second** from W at 3 meters
Ground Roughness: open country Cloud Cover: 5 tenths
Air Temperature: 20° C **Stability Class: A** (user override)
No Inversion Height Relative Humidity: 50%

SOURCE STRENGTH:

Direct Source: 139.48 kilograms/sec Source Height: 305 meters
Release Duration: 60 minutes
Release Rate: 8,370 kilograms/min
Total Amount Released: 502,128 kilograms
Note: This chemical may flash boil and/or result in two phase flow.
Use both dispersion modules to investigate its potential behavior.

THREAT ZONE: (GAUSSIAN SELECTED)

Model Run: Gaussian
Red : **LOC is not exceeded** --- (3680 mg/(cu m))
Note: Threat zone was not drawn because the ground level concentrations never exceed the LOC.
Orange: **LOC is not exceeded** --- (920 mg/(cu m))
Note: Threat zone was not drawn because the ground level concentrations never exceed the LOC.

Incendie de trois cellules de stockage
Dispersion du Monoxyde de carbone
Condition F, vent 3 m/s

SITE DATA:

Location: HEUDEBOUVILLE, FRANCE
Building Air Exchanges Per Hour: 0.65 (unsheltered single storied)
Time: March 12, 2019 0935 hours DST (using computer's clock)

CHEMICAL DATA:

Chemical Name: CARBON MONOXIDE
CAS Number: 630-8-0 Molecular Weight: 28.01 g/mol
AEGL-1 (60 min): N/A AEGL-2 (60 min): 83 ppm AEGL-3 (60 min): 330 ppm
IDLH: 1200 ppm LEL: 125000 ppm UEL: 742000 ppm
Ambient Boiling Point: -191.5° 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: **3 meters/second** from W at 3 meters
Ground Roughness: open country Cloud Cover: 5 tenths
Air Temperature: 15° C **Stability Class: F**
No Inversion Height Relative Humidity: 50%

SOURCE STRENGTH:

Direct Source: 139.48 kilograms/sec Source Height: 203 meters
Release Duration: 60 minutes
Release Rate: 8,370 kilograms/min
Total Amount Released: 502,128 kilograms
Note: This chemical may flash boil and/or result in two phase flow.
Use both dispersion modules to investigate its potential behavior.

THREAT ZONE: (GAUSSIAN SELECTED)

Model Run: Gaussian
Red : **LOC is not exceeded** --- (3680 mg/(cu m))
Note: Threat zone was not drawn because the ground level concentrations never exceed the LOC.
Orange: **LOC is not exceeded** --- (920 mg/(cu m))
Note: Threat zone was not drawn because the ground level concentrations never exceed the LOC.

Incendie de trois cellules de stockage
Dispersion du Monoxyde de carbone
Condition D, vent 5 m/s

SITE DATA:

Location: HEUDEBOUVILLE, FRANCE
Building Air Exchanges Per Hour: 1.04 (unsheltered single storied)
Time: March 12, 2019 0936 hours DST (using computer's clock)

CHEMICAL DATA:

Chemical Name: CARBON MONOXIDE
CAS Number: 630-8-0 Molecular Weight: 28.01 g/mol
AEGL-1 (60 min): N/A AEGL-2 (60 min): 83 ppm AEGL-3 (60 min): 330 ppm
IDLH: 1200 ppm LEL: 125000 ppm UEL: 742000 ppm
Ambient Boiling Point: -191.5° 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: **5 meters/second** from W at 3 meters
Ground Roughness: open country Cloud Cover: 5 tenths
Air Temperature: 20° C **Stability Class: D** (user override)
No Inversion Height Relative Humidity: 50%

SOURCE STRENGTH:

Direct Source: 139.48 kilograms/sec Source Height: 122 meters
Release Duration: 60 minutes
Release Rate: 8,370 kilograms/min
Total Amount Released: 502,128 kilograms
Note: This chemical may flash boil and/or result in two phase flow.
Use both dispersion modules to investigate its potential behavior.

THREAT ZONE: (GAUSSIAN SELECTED)

Model Run: Gaussian
Red : **LOC is not exceeded** --- (3680 mg/(cu m))
Note: Threat zone was not drawn because the ground level concentrations never exceed the LOC.
Orange: **LOC is not exceeded** --- (920 mg/(cu m))
Note: Threat zone was not drawn because the ground level concentrations never exceed the LOC.

Incendie de 3 cellules de stockage
Dispersion du Dioxyde de carbone
Condition A, vent 2 m/s

SITE DATA:

Location: HEUDEBOUVILLE, FRANCE
Building Air Exchanges Per Hour: 0.42 (unsheltered single storied)
Time: March 12, 2019 0942 hours DST (using computer's clock)

CHEMICAL DATA:

Chemical Name: CARBON DIOXIDE
CAS Number: 124-38-9 Molecular Weight: 44.01 g/mol
IDLH: 40000 ppm
Normal Boiling Point: -unavail-
Vapor Pressure at Ambient Temperature: greater than 1 atm
Ambient Saturation Concentration: 1,000,000 ppm or 100.0%
Note: Not enough chemical data to use Heavy Gas option

ATMOSPHERIC DATA: (MANUAL INPUT OF DATA)

Wind: 2 meters/second from SW at 3 meters
Ground Roughness: open country Cloud Cover: 5 tenths
Air Temperature: 20° C
Stability Class: A (user override)
No Inversion Height Relative Humidity: 50%

SOURCE STRENGTH:

Direct Source: 1394.79 kilograms/sec
Source Height: 305 meters
Release Duration: 60 minutes
Release Rate: 83,700 kilograms/min
Total Amount Released: 5,021,244 kilograms

THREAT ZONE: (GAUSSIAN SELECTED)

Model Run: Gaussian
Red : **LOC is not exceeded** --- (89980 mg/(cu m))
Note: Threat zone was not drawn because the ground level concentrations never exceed the LOC.

Incendie de 3 cellules de stockage
Dispersion du Dioxyde de carbone
Condition F, vent 3 m/s

SITE DATA:

Location: HEUDEBOUVILLE, FRANCE
Building Air Exchanges Per Hour: 0.65 (unsheltered single storied)
Time: March 12, 2019 0943 hours DST (using computer's clock)

CHEMICAL DATA:

Chemical Name: CARBON DIOXIDE
CAS Number: 124-38-9 Molecular Weight: 44.01 g/mol
IDLH: 40000 ppm
Normal Boiling Point: -unavail-
Vapor Pressure at Ambient Temperature: greater than 1 atm
Ambient Saturation Concentration: 1,000,000 ppm or 100.0%
Note: Not enough chemical data to use Heavy Gas option

ATMOSPHERIC DATA: (MANUAL INPUT OF DATA)

Wind: 3 meters/second from SW at 3 meters
Ground Roughness: open country Cloud Cover: 5 tenths
Air Temperature: 15° C
Stability Class: F (user override)
No Inversion Height Relative Humidity: 50%

SOURCE STRENGTH:

Direct Source: 1394.79 kilograms/sec
Source Height: 203 meters
Release Duration: 60 minutes
Release Rate: 83,700 kilograms/min
Total Amount Released: 5,021,244 kilograms

THREAT ZONE: (GAUSSIAN SELECTED)

Model Run: Gaussian
Red : **LOC is not exceeded --- (89980 mg/(cu m))**
Note: Threat zone was not drawn because the ground level concentrations never exceed the LOC.

Incendie de 3 cellules de stockage
Dispersion du Dioxyde de carbone
Condition D, vent 5 m/s

SITE DATA:

Location: HEUDEBOUVILLE, FRANCE
Building Air Exchanges Per Hour: 1.04 (unsheltered single storied)
Time: March 12, 2019 0944 hours DST (using computer's clock)

CHEMICAL DATA:

Chemical Name: CARBON DIOXIDE
CAS Number: 124-38-9 Molecular Weight: 44.01 g/mol
IDLH: 40000 ppm
Normal Boiling Point: -unavail-
Vapor Pressure at Ambient Temperature: greater than 1 atm
Ambient Saturation Concentration: 1,000,000 ppm or 100.0%
Note: Not enough chemical data to use Heavy Gas option

ATMOSPHERIC DATA: (MANUAL INPUT OF DATA)

Wind: 5 meters/second from SW at 3 meters
Ground Roughness: open country Cloud Cover: 5 tenths
Air Temperature: 20° C Stability Class: D
No Inversion Height Relative Humidity: 50%

SOURCE STRENGTH:

Direct Source: 1394.79 kilograms/sec
Source Height: 122 meters
Release Duration: 60 minutes
Release Rate: 83,700 kilograms/min
Total Amount Released: 5,021,244 kilograms

THREAT ZONE: (GAUSSIAN SELECTED)

Model Run: Gaussian
Red : **LOC is not exceeded** --- (89980 mg/(cu m))
Note: Threat zone was not drawn because the ground level concentrations never exceed the LOC.

Incendie de trois cellules de stockage
Dispersion du HCl
Condition A, vent 2 m/s

SITE DATA:

Location: HEUDEBOUVILLE, FRANCE
Building Air Exchanges Per Hour: 0.42 (unsheltered single storied)
Time: March 12, 2019 0945 hours DST (using computer's clock)

CHEMICAL DATA:

Warning: HYDROGEN CHLORIDE can react with water and/or water vapor. This can affect the evaporation rate and downwind dispersion. ALOHA cannot accurately predict the air hazard if this substance comes in contact with water.

Chemical Name: HYDROGEN CHLORIDE
CAS Number: 7647-1-0 Molecular Weight: 36.46 g/mol
AEGL-1 (60 min): 1.8 ppm AEGL-2 (60 min): 22 ppm AEGL-3 (60 min): 100 ppm
IDLH: 50 ppm
Ambient Boiling Point: -85.0° 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 meters/second from SW at 3 meters
Ground Roughness: open country Cloud Cover: 5 tenths
Air Temperature: 20° C
Stability Class: A (user override)
No Inversion Height Relative Humidity: 50%

SOURCE STRENGTH:

Direct Source: 52.56 kilograms/sec Source Height: 305 meters
Release Duration: 60 minutes
Release Rate: 3,150 kilograms/min
Total Amount Released: 189,216 kilograms
Note: This chemical may flash boil and/or result in two phase flow.

THREAT ZONE: (GAUSSIAN SELECTED)

Model Run: Gaussian
Red : **LOC is not exceeded** --- (358 mg/(cu m))
Note: Threat zone was not drawn because the ground level concentrations never exceed the LOC.
Orange: **LOC is not exceeded** --- (60 mg/(cu m))
Note: Threat zone was not drawn because the ground level concentrations never exceed the LOC.

Incendie de trois cellules de stockage
Dispersion du HCl
Condition F, vent 3 m/s

SITE DATA:

Location: HEUDEBOUVILLE, FRANCE
Building Air Exchanges Per Hour: 0.65 (unsheltered single storied)
Time: March 12, 2019 0946 hours DST (using computer's clock)

CHEMICAL DATA:

Warning: HYDROGEN CHLORIDE can react with water and/or water vapor. This can affect the evaporation rate and downwind dispersion. ALOHA cannot accurately predict the air hazard if this substance comes in contact with water.

Chemical Name: HYDROGEN CHLORIDE
CAS Number: 7647-1-0 Molecular Weight: 36.46 g/mol
AEGL-1 (60 min): 1.8 ppm AEGL-2 (60 min): 22 ppm AEGL-3 (60 min): 100 ppm
IDLH: 50 ppm
Ambient Boiling Point: -85.0° 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: 3 meters/second from SW at 3 meters
Ground Roughness: open country Cloud Cover: 5 tenths
Air Temperature: 15° C
Stability Class: F (user override)
No Inversion Height Relative Humidity: 50%

SOURCE STRENGTH:

Direct Source: 52.56 kilograms/sec Source Height: 203 meters
Release Duration: 60 minutes
Release Rate: 3,150 kilograms/min
Total Amount Released: 189,216 kilograms
Note: This chemical may flash boil and/or result in two phase flow.

THREAT ZONE: (GAUSSIAN SELECTED)

Model Run: Gaussian
Red : **LOC is not exceeded** --- (358 mg/(cu m))
Note: Threat zone was not drawn because the ground level concentrations never exceed the LOC.
Orange: **LOC is not exceeded** --- (60 mg/(cu m))
Note: Threat zone was not drawn because the ground level concentrations never exceed the LOC.

Incendie de trois cellules de stockage
Dispersion du HCl
Condition D, vent 5 m/s

SITE DATA:

Location: HEUDEBOUVILLE, FRANCE
Building Air Exchanges Per Hour: 1.04 (unsheltered single storied)
Time: March 12, 2019 0946 hours DST (using computer's clock)

CHEMICAL DATA:

Warning: HYDROGEN CHLORIDE can react with water and/or water vapor. This can affect the evaporation rate and downwind dispersion. ALOHA cannot accurately predict the air hazard if this substance comes in contact with water.

Chemical Name: HYDROGEN CHLORIDE
CAS Number: 7647-1-0 Molecular Weight: 36.46 g/mol
AEGL-1 (60 min): 1.8 ppm AEGL-2 (60 min): 22 ppm AEGL-3 (60 min): 100 ppm
IDLH: 50 ppm
Ambient Boiling Point: -85.0° 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: 5 meters/second from SW at 3 meters
Ground Roughness: open country Cloud Cover: 5 tenths
Air Temperature: 20° C Stability Class: D
No Inversion Height Relative Humidity: 50%

SOURCE STRENGTH:

Direct Source: 52.56 kilograms/sec Source Height: 122 meters
Release Duration: 60 minutes
Release Rate: 3,150 kilograms/min
Total Amount Released: 189,216 kilograms
Note: This chemical may flash boil and/or result in two phase flow.

THREAT ZONE: (GAUSSIAN SELECTED)

Model Run: Gaussian
Red : **LOC is not exceeded** --- (358 mg/(cu m))
Note: Threat zone was not drawn because the ground level concentrations never exceed the LOC.
Orange: **LOC is not exceeded** --- (60 mg/(cu m))
Note: Threat zone was not drawn because the ground level concentrations never exceed the LOC.

Incendie de trois cellules de stockage
Dispersion du HCN
Condition A, vent 2 m/s

SITE DATA:

Location: HEUDEBOUVILLE, FRANCE
Building Air Exchanges Per Hour: 0.42 (unsheltered single storied)
Time: March 12, 2019 0948 hours DST (using computer's clock)

CHEMICAL DATA:

Chemical Name: HYDROGEN CYANIDE
CAS Number: 74-90-8 Molecular Weight: 27.03 g/mol
AEGL-1 (60 min): 2 ppm AEGL-2 (60 min): 7.1 ppm AEGL-3 (60 min): 15 ppm
IDLH: 50 ppm LEL: 56000 ppm UEL: 400000 ppm
Ambient Boiling Point: 25.5° C
Vapor Pressure at Ambient Temperature: 0.81 atm
Ambient Saturation Concentration: 809,371 ppm or 80.9%

ATMOSPHERIC DATA: (MANUAL INPUT OF DATA)

Wind: 2 meters/second from SW at 3 meters
Ground Roughness: open country Cloud Cover: 5 tenths
Air Temperature: 20° C
Stability Class: A (user override)
No Inversion Height Relative Humidity: 50%

SOURCE STRENGTH:

Direct Source: 4.08 kilograms/sec Source Height: 305 meters
Release Duration: 60 minutes
Release Rate: 245 kilograms/min
Total Amount Released: 14,688 kilograms

THREAT ZONE: (GAUSSIAN SELECTED)

Model Run: Gaussian
Red : LOC is not exceeded --- (45 mg/(cu m))
Note: Threat zone was not drawn because the ground level concentrations never exceed the LOC.

Incendie de trois cellules de stockage
Dispersion du HCN
Condition F, vent 3 m/s

SITE DATA:

Location: HEUDEBOUVILLE, FRANCE
Building Air Exchanges Per Hour: 0.65 (unsheltered single storied)
Time: March 12, 2019 0949 hours DST (using computer's clock)

CHEMICAL DATA:

Chemical Name: HYDROGEN CYANIDE
CAS Number: 74-90-8 Molecular Weight: 27.03 g/mol
AEGL-1 (60 min): 2 ppm AEGL-2 (60 min): 7.1 ppm AEGL-3 (60 min): 15 ppm
IDLH: 50 ppm LEL: 56000 ppm UEL: 400000 ppm
Ambient Boiling Point: 25.5° C
Vapor Pressure at Ambient Temperature: 0.66 atm
Ambient Saturation Concentration: 663,766 ppm or 66.4%

ATMOSPHERIC DATA: (MANUAL INPUT OF DATA)

Wind: 3 meters/second from SW at 3 meters
Ground Roughness: open country Cloud Cover: 5 tenths
Air Temperature: 15° C
Stability Class: F (user override)
No Inversion Height Relative Humidity: 50%

SOURCE STRENGTH:

Direct Source: 4.08 kilograms/sec Source Height: 203 meters
Release Duration: 60 minutes
Release Rate: 245 kilograms/min
Total Amount Released: 14,688 kilograms

THREAT ZONE: (GAUSSIAN SELECTED)

Model Run: Gaussian
Red : **LOC is not exceeded** --- (45 mg/(cu m))
Note: Threat zone was not drawn because the ground level concentrations never exceed the LOC.

Incendie de trois cellules de stockage
Dispersion du HCN
Condition D, vent 5 m/s

SITE DATA:

Location: HEUDEBOUVILLE, FRANCE
Building Air Exchanges Per Hour: 1.04 (unsheltered single storied)
Time: March 12, 2019 0950 hours DST (using computer's clock)

CHEMICAL DATA:

Chemical Name: HYDROGEN CYANIDE
CAS Number: 74-90-8 Molecular Weight: 27.03 g/mol
AEGL-1 (60 min): 2 ppm AEGL-2 (60 min): 7.1 ppm AEGL-3 (60 min): 15 ppm
IDLH: 50 ppm LEL: 56000 ppm UEL: 400000 ppm
Ambient Boiling Point: 25.5° C
Vapor Pressure at Ambient Temperature: 0.81 atm
Ambient Saturation Concentration: 809,371 ppm or 80.9%

ATMOSPHERIC DATA: (MANUAL INPUT OF DATA)

Wind: 5 meters/second from SW at 3 meters
Ground Roughness: open country Cloud Cover: 5 tenths
Air Temperature: 20° C Stability Class: D
No Inversion Height Relative Humidity: 50%

SOURCE STRENGTH:

Direct Source: 4.08 kilograms/sec Source Height: 122 meters
Release Duration: 60 minutes
Release Rate: 245 kilograms/min
Total Amount Released: 14,688 kilograms

THREAT ZONE: (GAUSSIAN SELECTED)

Model Run: Gaussian
Red : **LOC is not exceeded** --- (45 mg/(cu m))
Note: Threat zone was not drawn because the ground level concentrations never exceed the LOC.

Incendie de trois cellules de stockage
Dispersion des fumées de l'incendie (seuil équivalent)
Condition A, vent 2 m/s

SITE DATA:

Location: HEUDEBOUVILLE, FRANCE

Building Air Exchanges Per Hour: 0.42 (unsheltered single storied)

Time: March 12, 2019 0937 hours DST (using computer's clock)

ATMOSPHERIC DATA: (MANUAL INPUT OF DATA)

Wind: **2 meters/second** from W at 3 meters

Ground Roughness: open country Cloud Cover: 5 tenths

Air Temperature: 20° C **Stability Class: A** (user override)

No Inversion Height Relative Humidity: 50%

SOURCE STRENGTH:

Direct Source: 6351.09 kilograms/sec

Source Height: 305 meters

Release Duration: 60 minutes

Release Rate: 381,000 kilograms/min

Total Amount Released: 22,863,924 kilograms

Note: This chemical may flash boil and/or result in two phase flow.

Use both dispersion modules to investigate its potential behavior.

THREAT ZONE: (GAUSSIAN SELECTED)

Model Run: Gaussian

Red : **LOC is not exceeded** --- (21705 mg/(cu m))

Note: Threat zone was not drawn because the ground level concentrations never exceed the LOC.

Orange: **LOC is not exceeded** --- (5568 mg/(cu m))

Note: Threat zone was not drawn because the ground level concentrations never exceed the LOC.

Incendie de trois cellules de stockage
Dispersion des fumées de l'incendie (seuil équivalent)
Condition F, vent 3 m/s

SITE DATA:

Location: HEUDEBOUVILLE, FRANCE
Building Air Exchanges Per Hour: 0.65 (unsheltered single storied)
Time: March 12, 2019 0938 hours DST (using computer's clock)

ATMOSPHERIC DATA: (MANUAL INPUT OF DATA)

Wind: **3 meters/second** from W at 3 meters
Ground Roughness: open country Cloud Cover: 5 tenths
Air Temperature: 15° C **Stability Class: F**
No Inversion Height Relative Humidity: 50%

SOURCE STRENGTH:

Direct Source: 6351.09 kilograms/sec
Source Height: 203 meters
Release Duration: 60 minutes
Release Rate: 381,000 kilograms/min
Total Amount Released: 22,863,924 kilograms
Note: This chemical may flash boil and/or result in two phase flow.
Use both dispersion modules to investigate its potential behavior.

THREAT ZONE: (GAUSSIAN SELECTED)

Model Run: Gaussian
Red : **LOC is not exceeded** --- (21705 mg/(cu m))
Note: Threat zone was not drawn because the ground level concentrations never exceed the LOC.
Orange: **LOC is not exceeded** --- (5568 mg/(cu m))
Note: Threat zone was not drawn because the ground level concentrations never exceed the LOC.

Incendie de trois cellules de stockage
Dispersion des fumées de l'incendie (seuil équivalent)
Condition D, vent 5 m/s

SITE DATA:

Location: HEUDEBOUVILLE, FRANCE
Building Air Exchanges Per Hour: 1.04 (unsheltered single storied)
Time: March 12, 2019 0940 hours DST (using computer's clock)

ATMOSPHERIC DATA: (MANUAL INPUT OF DATA)

Wind: 5 meters/second from SW at 3 meters
Ground Roughness: open country Cloud Cover: 5 tenths
Air Temperature: 20° C **Stability Class: D**
No Inversion Height Relative Humidity: 50%

SOURCE STRENGTH:

Direct Source: 6351.09 kilograms/sec
Source Height: 122 meters
Release Duration: 60 minutes
Release Rate: 381,000 kilograms/min
Total Amount Released: 22,863,924 kilograms
Note: This chemical may flash boil and/or result in two phase flow.
Use both dispersion modules to investigate its potential behavior.

THREAT ZONE: (GAUSSIAN SELECTED)

Model Run: Gaussian
Red : **LOC is not exceeded** --- (21705 mg/(cu m))
Note: Threat zone was not drawn because the ground level concentrations never exceed the LOC.
Orange: **LOC is not exceeded** --- (5568 mg/(cu m))
Note: Threat zone was not drawn because the ground level concentrations never exceed the LOC.