

Modélisation de la dispersion atmosphérique des  
toxiques en cas d'incendie de trois cellules de  
stockage de produits combustibles

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

**SITE DATA INFORMATION:**

Location: BULLY LES MINES, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: November 2, 2017 1803 hours ST (using computer's clock)

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

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

**SOURCE STRENGTH INFORMATION:**

Direct Source: 53.35 kilograms /sec    Source Height: 328 meters  
Release Rate: 3,200 kilograms/min  
Total Amount Released: 192,060 kilograms

**FOOTPRINT INFORMATION:**

Dispersion Module: Gaussian  
Yellow LOC (79 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint 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 INFORMATION:**

Location: BULLY LES MINES, FRANCE  
Building Air Exchanges Per Hour: 0.78 (sheltered single storied)  
Time: November 2, 2017 1806 hours ST (using computer's clock)

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

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

**SOURCE STRENGTH INFORMATION:**

Direct Source: 53.35 kilograms /sec    Source Height: 131 meters  
Release Rate: 3,200 kilograms/min  
Total Amount Released: 192,060 kilograms

**FOOTPRINT INFORMATION:**

Dispersion Module: Gaussian  
Yellow LOC (79 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint 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 INFORMATION:**

Location: BULLY LES MINES, FRANCE  
Building Air Exchanges Per Hour: 0.51 (sheltered single storied)  
Time: November 2, 2017 1808 hours ST (using computer's clock)

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

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

**SOURCE STRENGTH INFORMATION:**

Direct Source: 53.35 kilograms/sec    Source Height: 219 meters  
Release Duration: 60 minutes  
Release Rate: 3,200 kilograms/min  
Total Amount Released: 192,060 kilograms

**FOOTPRINT INFORMATION:**

Dispersion Module: Gaussian  
Yellow LOC (79 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint 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 INFORMATION:**

Location: BULLY LES MINES, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: November 2, 2017 1810 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: CARBON MONOXIDE      Molecular Weight: 28.01 g/mol  
ERPG-3: 500 ppm    ERPG-2: 350 ppm    ERPG-1: 200 ppm  
IDLH: 1200 ppm  
Normal Boiling Point: -191.5° C      Ambient Boiling Point: -191.7° C  
Vapor Pressure at Ambient Temperature: greater than 1 atm  
Ambient Saturation Concentration: 1,000,000 ppm or 100.0%

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

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

**SOURCE STRENGTH INFORMATION:**

Direct Source: 167.37 kilograms/sec    Source Height: 328 meters  
Release Duration: 60 minutes  
Release Rate: 10,000 kilograms/min  
Total Amount Released: 602,532 kilograms  
Note: This chemical may flash boil and/or result in two phase flow.  
Use both dispersion modules to investigate its potential behavior.

**FOOTPRINT INFORMATION:**

Dispersion Module: Gaussian  
Red LOC (3680 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because  
the ground level concentrations never exceed the LOC.  
Orange LOC (920 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint 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 INFORMATION:**

Location: BULLY LES MINES, FRANCE  
Building Air Exchanges Per Hour: 0.78 (sheltered single storied)  
Time: November 2, 2017 1813 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: CARBON MONOXIDE      Molecular Weight: 28.01 g/mol  
ERPG-3: 500 ppm    ERPG-2: 350 ppm    ERPG-1: 200 ppm  
IDLH: 1200 ppm  
Normal Boiling Point: -191.5° C      Ambient Boiling Point: -191.7° C  
Vapor Pressure at Ambient Temperature: greater than 1 atm  
Ambient Saturation Concentration: 1,000,000 ppm or 100.0%

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

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

**SOURCE STRENGTH INFORMATION:**

Direct Source: 167.37 kilograms/sec    Source Height: 131 meters  
Release Duration: 60 minutes  
Release Rate: 10,000 kilograms/min  
Total Amount Released: 602,532 kilograms  
Note: This chemical may flash boil and/or result in two phase flow.  
    Use both dispersion modules to investigate its potential behavior.

**FOOTPRINT INFORMATION:**

Dispersion Module: Gaussian  
Red LOC (3680 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because  
    the ground level concentrations never exceed the LOC.  
Orange LOC (920 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint 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 INFORMATION:**

Location: BULLY LES MINES, FRANCE  
Building Air Exchanges Per Hour: 0.51 (sheltered single storied)  
Time: November 2, 2017 1816 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: CARBON MONOXIDE      Molecular Weight: 28.01 g/mol  
ERPG-3: 500 ppm    ERPG-2: 350 ppm    ERPG-1: 200 ppm  
IDLH: 1200 ppm  
Normal Boiling Point: -191.5° C      Ambient Boiling Point: -191.7° C  
Vapor Pressure at Ambient Temperature: greater than 1 atm  
Ambient Saturation Concentration: 1,000,000 ppm or 100.0%

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

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

**SOURCE STRENGTH INFORMATION:**

Direct Source: 167.37 kilograms/sec      Source Height: 219 meters  
Release Duration: 60 minutes  
Release Rate: 10,000 kilograms/min  
Total Amount Released: 602,532 kilograms  
Note: This chemical may flash boil and/or result in two phase flow.  
Use both dispersion modules to investigate its potential behavior.

**FOOTPRINT INFORMATION:**

Dispersion Module: Gaussian  
Red LOC (3680 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because  
the ground level concentrations never exceed the LOC.  
Orange LOC (920 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because  
the ground level concentrations never exceed the LOC.

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

**SITE DATA INFORMATION:**

Location: BULLY LES MINES, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: November 2, 2017 1820 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: CARBON DIOXIDE      Molecular Weight: 44.01 g/mol  
TEEL-3: 40000 ppm   TEEL-2: 30000 ppm   TEEL-1: 30000 ppm  
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 INFORMATION: (MANUAL INPUT OF DATA)**

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

**SOURCE STRENGTH INFORMATION:**

Direct Source: 1673.75 kilograms/sec      Source Height: 328 meters  
Release Duration: 60 minutes  
Release Rate: 100,000 kilograms/min  
Total Amount Released: 6,025,500 kilograms

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian  
Red LOC (89980 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.

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

**SITE DATA INFORMATION:**

Location: BULLY LES MINES, FRANCE  
Building Air Exchanges Per Hour: 0.78 (sheltered single storied)  
Time: November 2, 2017 1825 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: CARBON DIOXIDE      Molecular Weight: 44.01 g/mol  
TEEL-3: 40000 ppm   TEEL-2: 30000 ppm   TEEL-1: 30000 ppm  
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 INFORMATION: (MANUAL INPUT OF DATA)**

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

**SOURCE STRENGTH INFORMATION:**

Direct Source: 1673.75 kilograms/sec   Source Height: 131 meters  
Release Duration: 60 minutes  
Release Rate: 100,000 kilograms/min  
Total Amount Released: 6,025,500 kilograms

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian  
Red LOC (89980 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because the ground level concentrations never exceed the LOC.

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

**SITE DATA INFORMATION:**

Location: BULLY LES MINES, FRANCE  
Building Air Exchanges Per Hour: 0.51 (sheltered single storied)  
Time: November 2, 2017 1827 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: CARBON DIOXIDE      Molecular Weight: 44.01 g/mol  
TEEL-3: 40000 ppm   TEEL-2: 30000 ppm   TEEL-1: 30000 ppm  
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 INFORMATION: (MANUAL INPUT OF DATA)**

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

**SOURCE STRENGTH INFORMATION:**

Direct Source: 1673.75 kilograms/sec      Source Height: 219 meters  
Release Duration: 60 minutes  
Release Rate: 100,000 kilograms/min  
Total Amount Released: 6,025,500 kilograms

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian  
Red LOC (89980 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint 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 INFORMATION:**

Location: BULLY LES MINES, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: November 2, 2017 1834 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

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 Molecular Weight: 36.46 g/mol  
ERPG-3: 150 ppm ERPG-2: 20 ppm ERPG-1: 3 ppm  
IDLH: 50 ppm  
Normal Boiling Point: -85.0° C Ambient Boiling Point: -85.3° C  
Vapor Pressure at Ambient Temperature: greater than 1 atm  
Ambient Saturation Concentration: 1,000,000 ppm or 100.0%

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

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

**SOURCE STRENGTH INFORMATION:**

Direct Source: 63.07 kilograms/sec Source Height: 328 meters  
Release Duration: 60 minutes  
Release Rate: 3,780 kilograms/min  
Total Amount Released: 227,052 kilograms  
Note: This chemical may flash boil and/or result in two phase flow.

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian  
Red LOC (358 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because  
the ground level concentrations never exceed the LOC.  
Orange LOC (60 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint 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 INFORMATION:**

Location: BULLY LES MINES, FRANCE  
Building Air Exchanges Per Hour: 0.78 (sheltered single storied)  
Time: November 2, 2017 1836 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

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 Molecular Weight: 36.46 g/mol  
ERPG-3: 150 ppm ERPG-2: 20 ppm ERPG-1: 3 ppm  
IDLH: 50 ppm  
Normal Boiling Point: -85.0° C Ambient Boiling Point: -85.3° C  
Vapor Pressure at Ambient Temperature: greater than 1 atm  
Ambient Saturation Concentration: 1,000,000 ppm or 100.0%

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

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

**SOURCE STRENGTH INFORMATION:**

Direct Source: 63.07 kilograms/sec Source Height: 131 meters  
Release Duration: 60 minutes  
Release Rate: 3,780 kilograms/min  
Total Amount Released: 227,052 kilograms  
Note: This chemical may flash boil and/or result in two phase flow.

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian  
Red LOC (358 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because  
the ground level concentrations never exceed the LOC.  
Orange LOC (60 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint 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 INFORMATION:**

Location: BULLY LES MINES, FRANCE  
Building Air Exchanges Per Hour: 0.51 (sheltered single storied)  
Time: November 2, 2017 1838 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

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    Molecular Weight: 36.46 g/mol  
ERPG-3: 150 ppm    ERPG-2: 20 ppm    ERPG-1: 3 ppm  
IDLH: 50 ppm  
Normal Boiling Point: -85.0° C    Ambient Boiling Point: -85.3° C  
Vapor Pressure at Ambient Temperature: greater than 1 atm  
Ambient Saturation Concentration: 1,000,000 ppm or 100.0%

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

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

**SOURCE STRENGTH INFORMATION:**

Direct Source: 63.07 kilograms/sec    Source Height: 219 meters  
Release Duration: 60 minutes  
Release Rate: 3,780 kilograms/min  
Total Amount Released: 227,052 kilograms  
Note: This chemical may flash boil and/or result in two phase flow.

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian  
Red LOC (358 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because  
the ground level concentrations never exceed the LOC.  
Orange LOC (60 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint 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 INFORMATION:**

Location: BULLY LES MINES, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: November 2, 2017 1842 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: HYDROGEN CYANIDE      Molecular Weight: 27.03 g/mol  
AEGL-3: 27 ppm    AEGL-2: 17 ppm    AEGL-1: 2.5 ppm  
ERPG-3: 25 ppm    ERPG-2: 10 ppm    TEEL-1: 4.7 ppm  
IDLH: 50 ppm  
Normal Boiling Point: 25.7° C      Ambient Boiling Point: 25.4° C  
Vapor Pressure at Ambient Temperature: 0.81 atm  
Ambient Saturation Concentration: 814,227 ppm or 81.4%

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

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

**SOURCE STRENGTH INFORMATION:**

Direct Source: 4.90 kilograms/sec    Source Height: 328 meters  
Release Duration: 60 minutes  
Release Rate: 294 kilograms/min  
Total Amount Released: 17,640 kilograms

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian  
Red LOC (45 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint 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 INFORMATION:**

Location: BULLY LES MINES, FRANCE  
Building Air Exchanges Per Hour: 0.78 (sheltered single storied)  
Time: November 2, 2017 1845 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: HYDROGEN CYANIDE      Molecular Weight: 27.03 g/mol  
AEGL-3: 27 ppm    AEGL-2: 17 ppm    AEGL-1: 2.5 ppm  
ERPG-3: 25 ppm    ERPG-2: 10 ppm    TEEL-1: 4.7 ppm  
IDLH: 50 ppm  
Normal Boiling Point: 25.7° C      Ambient Boiling Point: 25.4° C  
Vapor Pressure at Ambient Temperature: 0.81 atm  
Ambient Saturation Concentration: 814,227 ppm or 81.4%

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

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

**SOURCE STRENGTH INFORMATION:**

Direct Source: 4.90 kilograms/sec    Source Height: 131 meters  
Release Duration: 60 minutes  
Release Rate: 294 kilograms/min  
Total Amount Released: 17,640 kilograms

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian  
Red LOC (45 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint 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 INFORMATION:**

Location: BULLY LES MINES, FRANCE  
Building Air Exchanges Per Hour: 0.51 (sheltered single storied)  
Time: November 2, 2017 1848 hours ST (using computer's clock)

**CHEMICAL INFORMATION:**

Chemical Name: HYDROGEN CYANIDE      Molecular Weight: 27.03 g/mol  
AEGL-3: 27 ppm    AEGL-2: 17 ppm    AEGL-1: 2.5 ppm  
ERPG-3: 25 ppm    ERPG-2: 10 ppm    TEEL-1: 4.7 ppm  
IDLH: 50 ppm  
Normal Boiling Point: 25.7° C      Ambient Boiling Point: 25.4° C  
Vapor Pressure at Ambient Temperature: 0.81 atm  
Ambient Saturation Concentration: 814,227 ppm or 81.4%

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

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

**SOURCE STRENGTH INFORMATION:**

Direct Source: 4.90 kilograms/sec    Source Height: 219 meters  
Release Duration: 60 minutes  
Release Rate: 294 kilograms/min  
Total Amount Released: 17,640 kilograms

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian  
Red LOC (45 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because  
the ground level concentrations never exceed the LOC.

Incendie de trois cellules de stockage  
**Dispersion des fumées de l'incendie**  
Condition A, vent 2 m/s

**SITE DATA INFORMATION:**

Location: BULLY LES MINES, FRANCE  
Building Air Exchanges Per Hour: 0.32 (sheltered single storied)  
Time: November 2, 2017 1852 hours ST (using computer's clock)

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

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

**SOURCE STRENGTH INFORMATION:**

Direct Source: 7621.3 kilograms/sec    Source Height: 328 meters  
Release Duration: 60 minutes  
Release Rate: 457,000 kilograms/min  
Total Amount Released: 27,436,680 kilograms

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian  
Red LOC (31018 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because  
    the ground level concentrations never exceed the LOC.  
Orange LOC (11346 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because  
    the ground level concentrations never exceed the LOC.

Incendie de trois cellules de stockage  
**Dispersion des fumées de l'incendie**  
Condition D, vent 5 m/s

**SITE DATA INFORMATION:**

Location: BULLY LES MINES, FRANCE  
Building Air Exchanges Per Hour: 0.78 (sheltered single storied)  
Time: November 2, 2017 1854 hours ST (using computer's clock)

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

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

**SOURCE STRENGTH INFORMATION:**

Direct Source: 7621.3 kilograms/sec    Source Height: 131 meters  
Release Duration: 60 minutes  
Release Rate: 457,000 kilograms/min  
Total Amount Released: 27,436,680 kilograms

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian  
Red LOC (21705 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because  
    the ground level concentrations never exceed the LOC.  
Orange LOC (5568 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because  
    the ground level concentrations never exceed the LOC.

Incendie de trois cellules de stockage  
**Dispersion des fumées de l'incendie**  
Condition F, vent 3 m/s

**SITE DATA INFORMATION:**

Location: BULLY LES MINES, FRANCE  
Building Air Exchanges Per Hour: 0.51 (sheltered single storied)  
Time: November 2, 2017 1855 hours ST (using computer's clock)

**ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)**

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

**SOURCE STRENGTH INFORMATION:**

Direct Source: 7621.3 kilograms/sec    Source Height: 219 meters  
Release Duration: 60 minutes  
Release Rate: 457,000 kilograms/min  
Total Amount Released: 27,436,680 kilograms

**FOOTPRINT INFORMATION: (GAUSS SELECTED)**

Dispersion Module: Gaussian  
Red LOC (21705 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because  
    the ground level concentrations never exceed the LOC.  
Orange LOC (5568 mg/(cu m)) Max Threat Zone: LOC is not exceeded  
Note: Footprint was not drawn because  
    the ground level concentrations never exceed the LOC.