Modélisation de la dispersion atmosphérique des toxiques en cas d'incendie d'une cellule de stockage de produits combustibles

# Incendie d'une cellule 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 1613 hours ST (using computer's clock)

## ATMOSPHERIC INFORMATION: (MANUAL INPUT OF DATA)

Wind: 2 meters/sec from SW at 3 meters

No Inversion Height

Relative Humidity: 50% Ground Roughness: open country

Cloud Cover: 5 tenths

## SOURCE STRENGTH INFORMATION:

Direct Source: 17.78 kilograms/sec Source Height: 214 meters

Release Duration: 60 minutes Release Rate: 1,070 kilograms/min Total Amount Released: 64,008 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

## Incendie d'une cellule 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 1635 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: 17.78 kilograms/sec Source Height: 86 meters

Release Duration: 60 minutes Release Rate: 1,070 kilograms/min Total Amount Released: 64,008 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

# Incendie d'une cellule 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 1638 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: 17.78 kilograms/sec Source Height: 143 meters

Release Duration: 60 minutes Release Rate: 1,070 kilograms/min Total Amount Released: 64,008 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

## Incendie d'une cellule 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 1645 hours ST (using computer's clock)

#### CHEMICAL INFORMATION:

Chemical Name: CARBON MONOXIDE Molecular Weight: 28.01 g/mol

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: 55.79 kilograms/sec Source Height: 214 meters

Release Duration: 60 minutes Release Rate: 3,350 kilograms/min

Total Amount Released: 200,844 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

## Incendie d'une cellule 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 1647 hours ST (using computer's clock)

#### CHEMICAL INFORMATION:

Chemical Name: CARBON MONOXIDE Molecular Weight: 28.01 g/mol

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: 55.79 kilograms/sec Source Height: 86 meters

Release Duration: 60 minutes Release Rate: 3,350 kilograms/min

Total Amount Released: 200,844 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

## Incendie d'une cellule 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 1649 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: 55.79 kilograms/sec Source Height: 143 meters

Release Duration: 60 minutes Release Rate: 3,350 kilograms/min

Total Amount Released: 200,844 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

## Incendie d'une cellule 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 1655 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

Relative Humidity: 50% Ground Roughness: open country

Cloud Cover: 5 tenths

## SOURCE STRENGTH INFORMATION:

Direct Source: 557.92 kilograms/sec Source Height: 214 meters

Release Duration: 60 minutes Release Rate: 33,500 kilograms/min

Total Amount Released: 2,008,512 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 d'une cellule 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 1657 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: 557.92 kilograms/sec Source Height: 86 meters

Release Duration: 60 minutes Release Rate: 33,500 kilograms/min

Total Amount Released: 2,008,512 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 d'une cellule 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 1659 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: 557.92 kilograms/sec Source Height: 143 meters

Release Duration: 60 minutes Release Rate: 33,500 kilograms/min

Total Amount Released: 2,008,512 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 d'une cellule de stockage Dispersion du HCI

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 1703 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: 21.02 kilograms/sec Source Height: 214 meters

Release Duration: 60 minutes Release Rate: 1,260 kilograms/min Total Amount Released: 75,672 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

## Incendie d'une cellule de stockage **Dispersion du HCI**

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 1706 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

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: 21.02 kilograms/sec Source Height: 86 meters

Release Duration: 60 minutes Release Rate: 1,260 kilograms/min Total Amount Released: 75,672 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

## Incendie d'une cellule de stockage Dispersion du HCI

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 1709 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

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

Relative Humidity: 50% Ground Roughness: open country

Cloud Cover: 5 tenths

## SOURCE STRENGTH INFORMATION:

Direct Source: 21.02 kilograms/sec Source Height: 143 meters

Release Duration: 60 minutes Release Rate: 1,260 kilograms/min Total Amount Released: 75,672 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

## Incendie d'une cellule 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 1715 hours ST (using computer's clock)

#### CHEMICAL INFORMATION:

Chemical Name: HYDROGEN CYANIDE Molecular Weight: 27.03 g/mol

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: 1.63 kilograms/sec Source Height: 214 meters

Release Duration: 60 minutes Release Rate: 97.8 kilograms/min Total Amount Released: 5,868 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

## Incendie d'une cellule 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 1717 hours ST (using computer's clock)

#### CHEMICAL INFORMATION:

Chemical Name: HYDROGEN CYANIDE Molecular Weight: 27.03 g/mol

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: 1.63 kilograms/sec Source Height: 86 meters

Release Duration: 60 minutes Release Rate: 97.8 kilograms/min Total Amount Released: 5,868 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

## Incendie d'une cellule 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 1719 hours ST (using computer's clock)

#### CHEMICAL INFORMATION:

Chemical Name: HYDROGEN CYANIDE Molecular Weight: 27.03 g/mol

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

Relative Humidity: 50% Ground Roughness: open country

Cloud Cover: 5 tenths

## SOURCE STRENGTH INFORMATION:

Direct Source: 1.63 kilograms/sec Source Height: 143 meters

Release Duration: 60 minutes Release Rate: 97.8 kilograms/min Total Amount Released: 5,868 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

## Incendie d'une cellule 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 1728 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: 2540.4 kilograms/sec Source Height: 214 meters

Release Duration: 60 minutes

Release Rate: 152,000 kilograms/min

Total Amount Released: 9,145,440 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: (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

## Incendie d'une cellule 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 1731 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: 2540.4 kilograms/sec Source Height: 86 meters

Release Duration: 60 minutes

Release Rate: 152,000 kilograms/min Total Amount Released: 9,145,440 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: (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

## Incendie d'une cellule 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 1733 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: 2540.4 kilograms/sec Source Height: 143 meters

Release Duration: 60 minutes

Release Rate: 152,000 kilograms/min

Total Amount Released: 9,145,440 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: (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