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

# Incendie d'une cellule de stockage Dispersion des suies Condition A, vent 2 m/s

#### SITE DATA INFORMATION:

Location: BELLE-EGLISE, FRANCE

Building Air Exchanges Per Hour: 0.32 (sheltered single storied) Time: February 4, 2020 1357 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: 54.67 kilograms/sec Source Height: 282 meters

Release Duration: 60 minutes Release Rate: 3,280 kilograms/min

Total Amount Released: 196,812 kilograms

## FOOTPRINT INFORMATION: Dispersion Module: Gaussian

Yellow LOC (79 mg/(cu m)) Max Threat Zone: LOC is not exceeded

# Incendie d'une cellule de stockage Dispersion des suies Condition D. Wort 5 m/s

Condition D, vent 5 m/s

#### SITE DATA INFORMATION:

Location: BELLE-EGLISE, FRANCE

Building Air Exchanges Per Hour: 0.32 (sheltered single storied) Time: February 4, 2020 1401 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: 54.67 kilograms/sec Source Height: 113 meters

Release Duration: 60 minutes Release Rate: 3,280 kilograms/min

Total Amount Released: 196,812 kilograms

## FOOTPRINT INFORMATION: Dispersion Module: Gaussian

Yellow LOC (79 mg/(cu m)) Max Threat Zone: LOC is not exceeded

## Incendie d'une cellule de stockage **Dispersion des suies**

Condition F, vent 3 m/s

#### SITE DATA INFORMATION:

Location: BELLE-EGLISE, FRANCE

Building Air Exchanges Per Hour: 0.32 (sheltered single storied) Time: February 4, 2020 1404 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: 54.67 kilograms/sec Source Height: 188 meters

Release Duration: 60 minutes Release Rate: 3,280 kilograms/min

Total Amount Released: 196,812 kilograms

## FOOTPRINT INFORMATION: Dispersion Module: Gaussian

Yellow LOC (79 mg/(cu m)) Max Threat Zone: LOC is not exceeded

# Incendie d'une cellule de stockage Dispersion du Monoxyde de carbone Condition A, vent 2 m/s

SITE DATA INFORMATION:

Location: BELLE-EGLISE, FRANCE

Building Air Exchanges Per Hour: 0.32 (sheltered single storied) Time: February 4, 2020 1408 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: 26.52 kilograms/sec Source Height: 282 meters

Release Duration: 60 minutes Release Rate: 1,590 kilograms/min Total Amount Released: 95,472 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

# Incendie d'une cellule de stockage Dispersion du Monoxyde de carbone

Condition D, vent 5 m/s

#### SITE DATA INFORMATION:

Location: BELLE-EGLISE, FRANCE

Building Air Exchanges Per Hour: 0.32 (sheltered single storied) Time: February 4, 2020 1409 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: 26.52 kilograms/sec Source Height: 113 meters

Release Duration: 60 minutes Release Rate: 1,590 kilograms/min Total Amount Released: 95,472 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

# Incendie d'une cellule de stockage Dispersion du Monoxyde de carbone

Condition F, vent 3 m/s

#### SITE DATA INFORMATION:

Location: BELLE-EGLISE, FRANCE

Building Air Exchanges Per Hour: 0.32 (sheltered single storied) Time: February 4, 2020 1410 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: 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: 26.52 kilograms/sec Source Height: 188 meters

Release Duration: 60 minutes Release Rate: 1,590 kilograms/min Total Amount Released: 95,472 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

# Incendie d'une cellule de stockage Dispersion du Dioxyde de carbone

Condition A, vent 2 m/s

#### SITE DATA INFORMATION:

Location: BELLE-EGLISE, FRANCE

Building Air Exchanges Per Hour: 0.32 (sheltered single storied) Time: February 4, 2020 1413 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: 707 kilograms/sec Source Height: 282 meters

Release Duration: 60 minutes Release Rate: 42,400 kilograms/min

Total Amount Released: 2,545,200 kilograms

#### FOOTPRINT INFORMATION: (GAUSS SELECTED)

Dispersion Module: Gaussian

Red LOC (89980 mg/(cu m)) Max Threat Zone: LOC is not exceeded

### Incendie d'une cellule de stockage Dispersion du Dioxyde de carbone

Condition D, vent 5 m/s

#### SITE DATA INFORMATION:

Location: BELLE-EGLISE, FRANCE

Building Air Exchanges Per Hour: 0.32 (sheltered single storied) Time: February 4, 2020 1414 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: 707 kilograms/sec Source Height: 113 meters

Release Duration: 60 minutes

Release Rate: 42,400 kilograms/min

Total Amount Released: 2,545,200 kilograms

#### FOOTPRINT INFORMATION: (GAUSS SELECTED)

Dispersion Module: Gaussian

Red LOC (89980 mg/(cu m)) Max Threat Zone: LOC is not exceeded

### Incendie d'une cellule de stockage **Dispersion du Dioxyde de carbone**

Condition F, vent 3 m/s

#### SITE DATA INFORMATION:

Location: BELLE-EGLISE, FRANCE

Building Air Exchanges Per Hour: 0.32 (sheltered single storied) Time: February 4, 2020 1415 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: 707 kilograms/sec Source Height: 188 meters

Release Duration: 60 minutes Release Rate: 42,400 kilograms/min

Total Amount Released: 2,545,200 kilograms

#### FOOTPRINT INFORMATION: (GAUSS SELECTED)

Dispersion Module: Gaussian

Red LOC (89980 mg/(cu m)) Max Threat Zone: LOC is not exceeded

## Incendie d'une cellule de stockage de pneumatiques Dispersion du SO<sub>2</sub>

Condition A, vent 2 m/s

#### SITE DATA INFORMATION:

Location: BELLE-EGLISE, FRANCE

Building Air Exchanges Per Hour: 0.32 (sheltered single storied) Time: February 4, 2020 1418 hours ST (using computer's clock)

#### CHEMICAL INFORMATION:

Chemical Name: SULFUR DIOXIDE Molecular Weight: 64.06 g/mol

ERPG-3: 15 ppm ERPG-2: 3 ppm ERPG-1: 0.3 ppm

IDLH: 100 ppm

Carcinogenic risk - see CAMEO

Normal Boiling Point: -10.0° C Ambient Boiling Point: -10.2° 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: 3.59 kilograms/sec Source Height: 282 meters

Release Duration: 60 minutes Release Rate: 215 kilograms/min

Total Amount Released: 12,924 kilograms

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

### FOOTPRINT INFORMATION: (GAUSS SELECTED)

Dispersion Module: Gaussian

Red LOC (1885 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 (211 mg/(cu m)) Max Threat Zone: LOC is not exceeded

### Incendie d'une cellule de stockage de pneumatiques Dispersion du SO<sub>2</sub>

Condition D, vent 5 m/s

#### SITE DATA INFORMATION:

Location: BELLE-EGLISE, FRANCE

Building Air Exchanges Per Hour: 0.32 (sheltered single storied) Time: February 4, 2020 1420 hours ST (using computer's clock)

#### CHEMICAL INFORMATION:

Chemical Name: SULFUR DIOXIDE Molecular Weight: 64.06 g/mol

IDLH: 100 ppm

Carcinogenic risk - see CAMEO

Normal Boiling Point: -10.0° C Ambient Boiling Point: -10.2° 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: 3.59 kilograms/sec Source Height: 113 meters

Release Duration: 60 minutes Release Rate: 215 kilograms/min

Total Amount Released: 12,924 kilograms

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

#### FOOTPRINT INFORMATION: (GAUSS SELECTED)

Dispersion Module: Gaussian

Red LOC (1885 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 (211 mg/(cu m)) Max Threat Zone: LOC is not exceeded

### Incendie d'une cellule de stockage de pneumatiques Dispersion du SO<sub>2</sub>

Condition F, vent 3 m/s

#### SITE DATA INFORMATION:

Location: BELLE-EGLISE, FRANCE

Building Air Exchanges Per Hour: 0.32 (sheltered single storied) Time: February 4, 2020 1421 hours ST (using computer's clock)

#### CHEMICAL INFORMATION:

Chemical Name: SULFUR DIOXIDE Molecular Weight: 64.06 g/mol

IDLH: 100 ppm

Carcinogenic risk - see CAMEO

Normal Boiling Point: -10.0° C Ambient Boiling Point: -10.2° 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: 20° C**Relative Humidity: 50% Ground Roughness: open country

Cloud Cover: 5 tenths

#### SOURCE STRENGTH INFORMATION:

Direct Source: 3.59 kilograms/sec Source Height: 188 meters

Release Duration: 60 minutes Release Rate: 215 kilograms/min

Total Amount Released: 12,924 kilograms

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

#### FOOTPRINT INFORMATION: (GAUSS SELECTED)

Dispersion Module: Gaussian

Red LOC (1885 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 (211 mg/(cu m)) Max Threat Zone: LOC is not exceeded

### Incendie d'une cellule de stockage de pneumatiques Dispersion du NO<sub>2</sub>

Condition A, vent 2 m/s

#### SITE DATA INFORMATION:

Location: BELLE-EGLISE, FRANCE

Building Air Exchanges Per Hour: 0.32 (sheltered single storied) Time: February 4, 2020 1424 hours ST (using computer's clock)

#### CHEMICAL INFORMATION:

Chemical Name: NITROGEN DIOXIDE Molecular Weight: 46.01 g/mol

TEEL-3: 30 ppm TEEL-2: 15 ppm TEEL-1: 2 ppm

IDLH: 20 ppm

Normal Boiling Point: 21.0° C Ambient Boiling Point: 20.9° C

Vapor Pressure at Ambient Temperature: 0.95 atm

Ambient Saturation Concentration: 958,041 ppm or 95.8%

#### 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: 1.02 kilograms/sec Source Height: 282 meters

Release Duration: 60 minutes Release Rate: 61.2 kilograms/min Total Amount Released: 3,672 kilograms

#### FOOTPRINT INFORMATION: (GAUSS SELECTED)

Dispersion Module: Gaussian

Red LOC (132 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 (75 mg/(cu m)) Max Threat Zone: LOC is not exceeded

### Incendie d'une cellule de stockage de pneumatiques Dispersion du NO<sub>2</sub>

Condition D, vent 5 m/s

#### SITE DATA INFORMATION:

Location: BELLE-EGLISE, FRANCE

Building Air Exchanges Per Hour: 0.32 (sheltered single storied) Time: February 4, 2020 1425 hours ST (using computer's clock)

#### CHEMICAL INFORMATION:

Chemical Name: NITROGEN DIOXIDE Molecular Weight: 46.01 g/mol

TEEL-3: 30 ppm TEEL-2: 15 ppm TEEL-1: 2 ppm

IDLH: 20 ppm

Normal Boiling Point: 21.0° C Ambient Boiling Point: 20.9° C

Vapor Pressure at Ambient Temperature: 0.95 atm

Ambient Saturation Concentration: 958,041 ppm or 95.8%

#### 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: 1.02 kilograms/sec Source Height: 113 meters

Release Duration: 60 minutes Release Rate: 61.2 kilograms/min Total Amount Released: 3,672 kilograms

#### FOOTPRINT INFORMATION: (GAUSS SELECTED)

Dispersion Module: Gaussian

Red LOC (132 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 (75 mg/(cu m)) Max Threat Zone: LOC is not exceeded

## Incendie d'une cellule de stockage de pneumatiques Dispersion du NO<sub>2</sub>

Condition F, vent 3 m/s

#### SITE DATA INFORMATION:

Location: BELLE-EGLISE, FRANCE

Building Air Exchanges Per Hour: 0.32 (sheltered single storied) Time: February 4, 2020 1426 hours ST (using computer's clock)

#### CHEMICAL INFORMATION:

Chemical Name: NITROGEN DIOXIDE Molecular Weight: 46.01 g/mol

TEEL-3: 30 ppm TEEL-2: 15 ppm TEEL-1: 2 ppm

IDLH: 20 ppm

Normal Boiling Point: 21.0° C Ambient Boiling Point: 20.9° C

Vapor Pressure at Ambient Temperature: 0.95 atm

Ambient Saturation Concentration: 958,041 ppm or 95.8%

#### 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: 20° C
Relative Humidity: 50% Ground Roughness: open country

Cloud Cover: 5 tenths

#### SOURCE STRENGTH INFORMATION:

Direct Source: 1.02 kilograms/sec Source Height: 188 meters

Release Duration: 60 minutes Release Rate: 61.2 kilograms/min Total Amount Released: 3,672 kilograms

#### FOOTPRINT INFORMATION: (GAUSS SELECTED)

Dispersion Module: Gaussian

Red LOC (132 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 (75 mg/(cu m)) Max Threat Zone: LOC is not exceeded

## Incendie d'une cellule de stockage de pneumatiques **Dispersion du formol**

Condition A, vent 2 m/s

#### SITE DATA INFORMATION:

Location: BELLE-EGLISE, FRANCE

Building Air Exchanges Per Hour: 0.32 (sheltered single storied) Time: February 4, 2020 1430 hours ST (using computer's clock)

#### CHEMICAL INFORMATION:

Chemical Name: FORMIC ACID Molecular Weight: 46.03 g/mol

TEEL-3: 30 ppm TEEL-2: 10 ppm TEEL-1: 10 ppm

IDLH: 30 ppmf

Normal Boiling Point: 100.6° C Ambient Boiling Point: 100.3° C

Vapor Pressure at Ambient Temperature: 0.044 atm Ambient Saturation Concentration: 44,317 ppm or 4.43%

#### 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: 0.04 kilograms/sec Source Height: 282 meters

Release Duration: 60 minutes Release Rate: 2.4 kilograms/min

Total Amount Released: 144.0 kilograms

#### FOOTPRINT INFORMATION: (GAUSS SELECTED)

Dispersion Module: Gaussian

Red LOC (31 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 (12 mg/(cu m)) Max Threat Zone: LOC is not exceeded

# Incendie d'une cellule de stockage de pneumatiques **Dispersion du formol**

Condition D, vent 5 m/s

#### SITE DATA INFORMATION:

Location: BELLE-EGLISE, FRANCE

Building Air Exchanges Per Hour: 0.32 (sheltered single storied) Time: February 4, 2020 1432 hours ST (using computer's clock)

#### CHEMICAL INFORMATION:

Chemical Name: FORMIC ACID Molecular Weight: 46.03 g/mol

TEEL-3: 30 ppm TEEL-2: 10 ppm TEEL-1: 10 ppm

IDLH: 30 ppm

Normal Boiling Point: 100.6° C Ambient Boiling Point: 100.3° C

Vapor Pressure at Ambient Temperature: 0.044 atm Ambient Saturation Concentration: 44,317 ppm or 4.43%

#### 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: 0.04 kilograms/sec Source Height: 113 meters

Release Duration: 60 minutes Release Rate: 2.4 kilograms/min

Total Amount Released: 144.0 kilograms

#### FOOTPRINT INFORMATION: (GAUSS SELECTED)

Dispersion Module: Gaussian

Red LOC (31 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 (12 mg/(cu m)) Max Threat Zone: LOC is not exceeded

# Incendie d'une cellule de stockage de pneumatiques **Dispersion du formol**

Condition F, vent 3 m/s

#### SITE DATA INFORMATION:

Location: BELLE-EGLISE, FRANCE

Building Air Exchanges Per Hour: 0.32 (sheltered single storied) Time: February 4, 2020 1433 hours ST (using computer's clock)

#### CHEMICAL INFORMATION:

Chemical Name: FORMIC ACID Molecular Weight: 46.03 g/mol

TEEL-3: 30 ppm TEEL-2: 10 ppm TEEL-1: 10 ppm

IDLH: 30 ppm

Normal Boiling Point: 100.6° C Ambient Boiling Point: 100.3° C

Vapor Pressure at Ambient Temperature: 0.044 atm Ambient Saturation Concentration: 44,317 ppm or 4.43%

#### 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: 20° C**Relative Humidity: 50% Ground Roughness: open country

Cloud Cover: 5 tenths

#### SOURCE STRENGTH INFORMATION:

Direct Source: 0.04 kilograms/sec Source Height: 188 meters

Release Duration: 60 minutes Release Rate: 2.4 kilograms/min

Total Amount Released: 144.0 kilograms

#### FOOTPRINT INFORMATION: (GAUSS SELECTED)

Dispersion Module: Gaussian

Red LOC (31 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 (12 mg/(cu m)) Max Threat Zone: LOC is not exceeded

# Incendie d'une cellule de stockage de pneumatiques Dispersion des fumées d'incendie\_ Seuils équivalents Condition A, vent 2 m/s

#### SITE DATA INFORMATION:

Location: BELLE-EGLISE, FRANCE

Building Air Exchanges Per Hour: 0.32 (sheltered single storied) Time: February 4, 2020 1434 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: 817.02 kilograms/sec Source Height: 282 meters

Release Duration: 60 minutes

Release Rate: 49,000 kilograms/min

Total Amount Released: 2,941,272 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

# Incendie d'une cellule de stockage de pneumatiques Dispersion des fumées d'incendie\_ Seuls équivalents Condition D, vent 5 m/s

#### SITE DATA INFORMATION:

Location: BELLE-EGLISE, FRANCE

Building Air Exchanges Per Hour: 0.32 (sheltered single storied) Time: February 4, 2020 1435 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: 817.02 kilograms/sec Source Height: 113 meters

Release Duration: 60 minutes

Release Rate: 49,000 kilograms/min

Total Amount Released: 2,941,272 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

# Incendie d'une cellule de stockage de pneumatiques Dispersion des fumées d'incendie\_ Seuils équivalents Condition F, vent 3 m/s

#### SITE DATA INFORMATION:

Location: BELLE-EGLISE, FRANCE

Building Air Exchanges Per Hour: 0.32 (sheltered single storied) Time: February 4, 2020 1436 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: 20° C**Relative Humidity: 50% Ground Roughness: open country

Cloud Cover: 5 tenths

#### SOURCE STRENGTH INFORMATION:

Direct Source: 817.02 kilograms/sec Source Height: 188 meters

Release Duration: 60 minutes Release Rate: 49,000 kilograms/min

Total Amount Released: 2,941,272 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