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: Location: BELLE-EGLISE, FRANCE Building Air Exchanges Per Hour: 0.42 (unsheltered single storied) Time: February 4, 2020 1349 hours ST (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: 66.69 kilograms/sec Source Height: 358 meters Release Duration: 60 minutes Release Rate: 4,000 kilograms/min Total Amount Released: 240,084 kilograms 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: BELLE-EGLISE, FRANCE Building Air Exchanges Per Hour: 0.42 (unsheltered single storied) Time: February 4, 2020 1350 hours ST (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 No Inversion Height Relative Humidity: 50% SOURCE STRENGTH: Direct Source: 66.69 kilograms/sec Source Height: 143 meters Release Duration: 60 minutes Release Rate: 4,000 kilograms/min Total Amount Released: 240,084 kilograms 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: BELLE-EGLISE, FRANCE Building Air Exchanges Per Hour: 0.42 (unsheltered single storied) Time: February 4, 2020 1352 hours ST (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 Stability Class: F (user override) Air Temperature: 15° C No Inversion Height Relative Humidity: 50% SOURCE STRENGTH: Direct Source: 66.69 kilograms/sec Source Height: 239 meters Release Duration: 60 minutes Release Rate: 4,000 kilograms/min Total Amount Released: 240,084 kilograms 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

<ul> <li>SITE DATA: Location: BELLE-EGLISE, FRANCE Building Air Exchanges Per Hour: 0.42 (unsheltered single storied) Time: February 4, 2020 1354 hours ST (using computer's clock)</li> <li>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%</li> <li>ATMOSPHERIC DATA: (MANUAL INPUT OF DATA) Wind: 2 meters/second from W at 3 meters</li> </ul>
Ground Roughness: open countryCloud Cover: 5 tenthsAir Temperature: 20° CStability Class: A (user override)No Inversion HeightRelative Humidity: 50%
SOURCE STRENGTH: <b>Direct Source: 209.22 kilograms/sec</b> Source Height: 358 meters Release Duration: 60 minutes Release Rate: 12,600 kilograms/min Total Amount Released: 753,192 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 : <b>LOC is not exceeded</b> (3680 mg/(cu m)) Note: Threat zone was not drawn because the ground level concentrations never exceed the LOC. Orange: <b>LOC is not exceeded</b> (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: BELLE-EGLISE, FRANCE Building Air Exchanges Per Hour: 0.42 (unsheltered single storied) Time: February 4, 2020 1356 hours ST (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         No Inversion Height       Relative Humidity: 50%
SOURCE STRENGTH: <b>Direct Source: 209.22 kilograms/sec</b> Source Height: 143 meters Release Duration: 60 minutes Release Rate: 12,600 kilograms/min Total Amount Released: 753,192 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 : <b>LOC is not exceeded</b> (3680 mg/(cu m)) Note: Threat zone was not drawn because the ground level concentrations never exceed the LOC. Orange: <b>LOC is not exceeded</b> (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: BELLE-EGLISE, FRANCE Building Air Exchanges Per Hour: 0.42 (unsheltered single storied) Time: February 4, 2020 1358 hours ST (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 (user override)         No Inversion Height       Relative Humidity: 50%
SOURCE STRENGTH: <b>Direct Source: 209.22 kilograms/sec</b> Source Height: 239 meters Release Duration: 60 minutes Release Rate: 12,600 kilograms/min Total Amount Released: 753,192 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 : <b>LOC is not exceeded</b> (3680 mg/(cu m)) Note: Threat zone was not drawn because the ground level concentrations never exceed the LOC. Orange: <b>LOC is not exceeded</b> (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: BELLE-EGLISE, FRANCE Building Air Exchanges Per Hour: 0.42 (unsheltered single storied) Time: February 4, 2020 1401 hours ST (using computer's clock) CHEMICAL DATA: Chemical Name: CARBON DIOXIDE Molecular Weight: 44.01 g/mol CAS Number: 124-38-9 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 W at 3 meters Ground Roughness: open country Cloud Cover: 5 tenths Air Temperature: 20° C Stability Class: A (user override) Relative Humidity: 50% No Inversion Height SOURCE STRENGTH: Direct Source: 2092.19 kilograms/sec Source Height: 358 meters Release Duration: 60 minutes Release Rate: 126,000 kilograms/min Total Amount Released: 7,531,884 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: BELLE-EGLISE, FRANCE Building Air Exchanges Per Hour: 0.42 (unsheltered single storied) Time: February 4, 2020 1402 hours ST (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 W 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: <b>Direct Source: 2092.19 kilograms/sec Source Height: 143 meters</b> Release Duration: 60 minutes Release Rate: 126,000 kilograms/min Total Amount Released: 7,531,884 kilograms
THREAT ZONE: (GAUSSIAN SELECTED) Model Run: Gaussian Red : <b>LOC is not exceeded (89980 mg/(cu m))</b> 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: BELLE-EGLISE, FRANCE
Building Air Exchanges Per Hour: 0.42 (unsheltered single storied)
Time: February 4, 2020 1403 hours ST (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: <b>3 meters/second</b> from W 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: 2092.19 kilograms/sec Source Height: 239 meters
Release Duration: 60 minutes
Release Rate: 126,000 kilograms/min
Total Amount Released: 7,531,884 kilograms
THREAT ZONE: (GAUSSIAN SELECTED) Model Run: Gaussian
Red : <b>LOC is not exceeded</b> (89980 mg/(cu m)) Note: Threat zone was not drawn because the ground level concentrations never exceed the LOC.
Note. Threat zone was not drawn because the ground level concentrations nevel exceed the LOC.

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

SITE DATA:
Location: BELLE-EGLISE, FRANCE
Building Air Exchanges Per Hour: 0.42 (unsheltered single storied)
Time: February 4, 2020 1405 hours ST (using computer's clock)
CHEMICAL DATA:
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: <b>2 meters/second</b> 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: 78.84 kilograms/sec Source Height: 358 meters
Release Duration: 60 minutes
Release Rate: 4,730 kilograms/min
Total Amount Released: 283,824 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 HCI** Condition D, vent 5 m/s

SITE DATA: Location: BELLE-EGLISE, FRANCE Building Air Exchanges Per Hour: 0.42 (unsheltered single storied) Time: February 4, 2020 1406 hours ST (using computer's clock) CHEMICAL DATA: 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 W 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: 78.84 kilograms/sec Source Height: 143 meters **Release Duration: 60 minutes** Release Rate: 4,730 kilograms/min Total Amount Released: 283,824 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 HCI Condition F, vent 3 m/s

SITE DATA: Location: BELLE-EGLISE, FRANCE Building Air Exchanges Per Hour: 0.42 (unsheltered single storied) Time: February 4, 2020 1408 hours ST (using computer's clock) CHEMICAL DATA: 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 W 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: 78.84 kilograms/sec Source Height: 239 meters **Release Duration: 60 minutes** Release Rate: 4,730 kilograms/min Total Amount Released: 283,824 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: BELLE-EGLISE, FRANCE Building Air Exchanges Per Hour: 0.42 (unsheltered single storied) Time: February 4, 2020 1410 hours ST (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 LEL: 56000 ppm IDLH: 50 ppm UEL: 400000 ppm Ambient Boiling Point: 25.7° C Vapor Pressure at Ambient Temperature: 0.81 atm Ambient Saturation Concentration: 806,532 ppm or 80.7% ATMOSPHERIC DATA: (MANUAL INPUT OF DATA) Wind: 2 meters/second from W at 3 meters Ground Roughness: open country Cloud Cover: 5 tenths Stability Class: A (user override) Air Temperature: 20° C No Inversion Height Relative Humidity: 50% SOURCE STRENGTH: Direct Source: 6.12 kilograms/sec Source Height: 358 meters Release Duration: 60 minutes Release Rate: 367 kilograms/min Total Amount Released: 22,032 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: BELLE-EGLISE, FRANCE Building Air Exchanges Per Hour: 0.42 (unsheltered single storied) Time: February 4, 2020 1411 hours ST (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 LEL: 56000 ppm IDLH: 50 ppm UEL: 400000 ppm Ambient Boiling Point: 25.7° C Vapor Pressure at Ambient Temperature: 0.81 atm Ambient Saturation Concentration: 806,532 ppm or 80.7% 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** No Inversion Height Relative Humidity: 50% SOURCE STRENGTH: Source Height: 143 meters Direct Source: 6.12 kilograms/sec Release Duration: 60 minutes Release Rate: 367 kilograms/min Total Amount Released: 22,032 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: BELLE-EGLISE, FRANCE Building Air Exchanges Per Hour: 0.42 (unsheltered single storied) Time: February 4, 2020 1412 hours ST (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: 25.7° C Vapor Pressure at Ambient Temperature: 0.66 atm Ambient Saturation Concentration: 661,437 ppm or 66.1% ATMOSPHERIC DATA: (MANUAL INPUT OF DATA) Wind: 3 meters/second from W at 3 meters Cloud Cover: 5 tenths Ground Roughness: open country Air Temperature: 15° C Stability Class: F (user override) Relative Humidity: 50% No Inversion Height SOURCE STRENGTH: Direct Source: 6.12 kilograms/sec Source Height: 239 meters Release Duration: 60 minutes Release Rate: 367 kilograms/min Total Amount Released: 22,032 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: BELLE-EGLISE, FRANCE Building Air Exchanges Per Hour: 0.42 (unsheltered single storied) Time: February 4, 2020 1413 hours ST (using computer's clock)
ATMOSPHERIC DATA: (MANUAL INPUT OF DATA)Wind: 2 meters/second from W at 3 metersGround Roughness: open countryCloud Cover: 5 tenthsAir Temperature: 20° CStability Class: A (user override)No Inversion HeightRelative Humidity: 50%
SOURCE STRENGTH: <b>Direct Source: 9526.6 kilograms/sec</b> Source Height: 358 meters Release Duration: 60 minutes Release Rate: 572,000 kilograms/min Total Amount Released: 34,295,760 kilograms
THREAT ZONE: (GAUSSIAN SELECTED) Model Run: Gaussian Red : <b>LOC is not exceeded</b> (21705 mg/(cu m)) Note: Threat zone was not drawn because the ground level concentrations never exceed the LOC. Orange: <b>LOC is not exceeded</b> (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: BELLE-EGLISE, FRANCE Building Air Exchanges Per Hour: 0.42 (unsheltered single storied) Time: February 4, 2020 1415 hours ST (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 **Stability Class: D** Air Temperature: 20° C Relative Humidity: 50% No Inversion Height SOURCE STRENGTH: Direct Source: 9526.6 kilograms/sec Source Height: 143 meters Release Duration: 60 minutes Release Rate: 572,000 kilograms/min Total Amount Released: 34,295,760 kilograms 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: BELLE-EGLISE, FRANCE Building Air Exchanges Per Hour: 0.42 (unsheltered single storied) Time: February 4, 2020 1416 hours ST (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 (user override) No Inversion Height Relative Humidity: 50% SOURCE STRENGTH: Direct Source: 9526.6 kilograms/sec Source Height: 239 meters Release Duration: 60 minutes Release Rate: 572,000 kilograms/min Total Amount Released: 34,295,760 kilograms 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.