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

Incendie d’une cellule de stockage

Dispersion des suies

Condition A, vent 2 m/s

SITE DATA:
Location: VENNECY, FRANCE
Building Air Exchanges Per Hour: 0.42 (unsheltered single storied)
Time: March 24, 2020 1617 hours ST (using computer's clock)

ATMOSPHERIC DATA: (MANUAL INPUT OF DATA)
Wind: 2 meters/second from NE 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: 15.95 kilograms/sec Source Height: 176 meters
Release Duration: 60 minutes
Release Rate: 2,109 pounds/min
Total Amount Released: 126,540 pounds
Note: This chemical may flash boil and/or result in two phase flow.
Use both dispersion modules to investigate its potential behavior.

THREAT ZONE:
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 d’une cellule de stockage

Dispersion des suies

Condition D, vent 5 m/s

SITE DATA:
Location: VENNECY, FRANCE
Building Air Exchanges Per Hour: 1.04 (unsheltered single storied)
Time: March 24, 2020 1619 hours ST (using computer's clock)

ATMOSPHERIC DATA: (MANUAL INPUT OF DATA)
Wind: 5 meters/second from NE 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: 15.95 kilograms/sec Source Height: 70 meters
Release Duration: 60 minutes
Release Rate: 2,109 pounds/min
Total Amount Released: 126,540 pounds
Note: This chemical may flash boil and/or result in two phase flow.
Use both dispersion modules to investigate its potential behavior.

THREAT ZONE:
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 d’une cellule de stockage

Dispersion des suies

Condition F, vent 3 m/s

SITE DATA:
Location: VENNECY, FRANCE
Building Air Exchanges Per Hour: 0.65 (unsheltered single storied)
Time: March 24, 2020 1622 hours ST (using computer's clock)

ATMOSPHERIC DATA: (MANUAL INPUT OF DATA)
Wind: 3 meters/second from NE 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: 15.95 kilograms/sec Source Height: 117 meters
Release Duration: 60 minutes
Release Rate: 2,109 pounds/min
Total Amount Released: 126,540 pounds
Note: This chemical may flash boil and/or result in two phase flow.
Use both dispersion modules to investigate its potential behavior.

THREAT ZONE:
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 d’une cellule de stockage
Dispersion du Monoxyde de carbone
Condition A, vent 2 m/s

SITE DATA:
Location: VENNECY, FRANCE
Building Air Exchanges Per Hour: 0.42 (unsheltered single storied)
Time: March 24, 2020 1627 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: -313.0° F
Vapor Pressure at Ambient Temperature: greater than 1 atm
Ambient Saturation Concentration: 1,000,000 ppm or 100.0%

ATMOSPHERIC DATA: (MANUAL INPUT OF DATA)
Wind: 2 meters/second from NE 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: 7.73 kilograms/sec Source Height: 176 meters
Release Duration: 60 minutes
Release Rate: 1,022 pounds/min
Total Amount Released: 61,320 pounds
Note: This chemical may flash boil and/or result in two phase flow.
Use both dispersion modules to investigate its potential behavior.

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

Incendie d'une cellule de stockage
Dispersion du Monoxyde de carbone
Condition D, vent 5 m/s

SITE DATA:
Location: VENNECY, FRANCE
Building Air Exchanges Per Hour: 1.04 (unsheltered single storied)
Time: March 24, 2020 1635 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: -313.0° F
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 NE 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: 7.73 kilograms/sec Source Height: 70 meters
Release Duration: 60 minutes
Release Rate: 1,022 pounds/min
Total Amount Released: 61,320 pounds
Note: This chemical may flash boil and/or result in two phase flow.
Use both dispersion modules to investigate its potential behavior.

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

Incendie d’une cellule de stockage
Dispersion du Monoxyde de carbone
Condition F, vent 3 m/s

SITE DATA:
Location: VENNECY, FRANCE
Building Air Exchanges Per Hour: 0.65 (unsheltered single storied)
Time: March 24, 2020 1641 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: -313.0° F
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 NE 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: 7.73 kilograms/sec Source Height: 117 meters
Release Duration: 60 minutes
Release Rate: 1,022 pounds/min
Total Amount Released: 61,320 pounds
Note: This chemical may flash boil and/or result in two phase flow.
Use both dispersion modules to investigate its potential behavior.

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

Incendie d’une cellule de stockage
Dispersion du Dioxyde de carbone
Condition A, vent 2 m/s

SITE DATA:
Location: VENNECY, FRANCE
Building Air Exchanges Per Hour: 0.42 (unsheltered single storied)
Time: March 24, 2020 1645 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: 2 meters/second from NE 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: 206.23 kilograms/sec Source Height: 176 meters
Release Duration: 60 minutes
Release Rate: 26,882 pounds/min
Total Amount Released: 1,612,963 pounds

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 d'une cellule de stockage
Dispersion du Dioxyde de carbone
Condition D, vent 5 m/s

SITE DATA:
Location: VENNECY, FRANCE
Building Air Exchanges Per Hour: 1.04 (unsheltered single storied)
Time: March 24, 2020 1651 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 NE 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: 206.23 kilograms/sec Source Height: 70 meters
Release Duration: 60 minutes
Release Rate: 26,882 pounds/min
Total Amount Released: 1,612,963 pounds

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 d'une cellule de stockage
Dispersion du Dioxyde de carbone
Condition F, vent 3 m/s

SITE DATA:
Location: VENNECY, FRANCE
Building Air Exchanges Per Hour: 0.65 (unsheltered single storied)
Time: March 24, 2020 1657 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: 3 meters/second from NE 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: 206.23 kilograms/sec Source Height: 117 meters
Release Duration: 60 minutes
Release Rate: 26,882 pounds/min
Total Amount Released: 1,612,963 pounds

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 d'une cellule de stockage
Dispersion du SO2
Condition A, vent 2 m/s

SITE DATA:
Location: VENNECY, FRANCE
Building Air Exchanges Per Hour: 0.42 (unsheltered single storied)
Time: March 25, 2020 0913 hours ST (using computer's clock)

CHEMICAL DATA:
Chemical Name: SULFUR DIOXIDE
CAS Number: 7446-9-5 Molecular Weight: 64.06 g/mol
AEGL-1 (60 min): 0.2 ppm AEGL-2 (60 min): 0.75 ppm AEGL-3 (60 min): 30 ppm
IDLH: 100 ppm
Ambient Boiling Point: 13.5° F
Vapor Pressure at Ambient Temperature: greater than 1 atm
Ambient Saturation Concentration: 1,000,000 ppm or 100.0%

ATMOSPHERIC DATA: (MANUAL INPUT OF DATA)
Wind: 2 meters/second from NE 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: 0.95 kilograms/sec Source Height: 176 meters
Release Duration: 60 minutes
Release Rate: 126 pounds/min
Total Amount Released: 7,540 pounds
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 --- (1885 mg/(cu m))
Note: Threat zone was not drawn because
the ground level concentrations never exceed the LOC.
Orange: LOC is not exceeded --- (211 mg/(cu m))
Note: Threat zone was not drawn because
the ground level concentrations never exceed the LOC.

Incendie d'une cellule de stockage

Dispersion du SO2

Condition D, vent 5 m/s

SITE DATA:
Location: VENNECY, FRANCE
Building Air Exchanges Per Hour: 1.04 (unsheltered single storied)
Time: March 25, 2020 0915 hours ST (using computer's clock)

CHEMICAL DATA:
Chemical Name: SULFUR DIOXIDE
CAS Number: 7446-9-5 Molecular Weight: 64.06 g/mol
AEGL-1 (60 min): 0.2 ppm AEGL-2 (60 min): 0.75 ppm AEGL-3 (60 min): 30 ppm
IDLH: 100 ppm
Ambient Boiling Point: 13.5° F
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 NE 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: 0.95 kilograms/sec Source Height: 70 meters
Release Duration: 60 minutes
Release Rate: 126 pounds/min
Total Amount Released: 7,540 pounds
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 --- (1885 mg/(cu m))
Note: Threat zone was not drawn because
the ground level concentrations never exceed the LOC.
Orange: LOC is not exceeded --- (211 mg/(cu m))
Note: Threat zone was not drawn because
the ground level concentrations never exceed the LOC.

Incendie d'une cellule de stockage

Dispersion du SO2

Condition F, vent 3 m/s

SITE DATA:
Location: VENNECY, FRANCE
Building Air Exchanges Per Hour: 0.65 (unsheltered single storied)
Time: March 25, 2020 0918 hours ST (using computer's clock)

CHEMICAL DATA:
Chemical Name: SULFUR DIOXIDE
CAS Number: 7446-9-5 Molecular Weight: 64.06 g/mol
AEGL-1 (60 min): 0.2 ppm AEGL-2 (60 min): 0.75 ppm AEGL-3 (60 min): 30 ppm
IDLH: 100 ppm
Ambient Boiling Point: 13.5° F
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 NE 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: 0.95 kilograms/sec Source Height: 117 meters
Release Duration: 60 minutes
Release Rate: 126 pounds/min
Total Amount Released: 7,540 pounds
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 --- (1885 mg/(cu m))
Note: Threat zone was not drawn because
the ground level concentrations never exceed the LOC.
Orange: LOC is not exceeded --- (211 mg/(cu m))
Note: Threat zone was not drawn because
the ground level concentrations never exceed the LOC.

Incendie d'une cellule de stockage
Dispersion du NO2
Condition A, vent 2 m/s

SITE DATA:
Location: VENNECY, FRANCE
Building Air Exchanges Per Hour: 0.42 (unsheltered single storied)
Time: March 25, 2020 0919 hours ST (using computer's clock)

CHEMICAL DATA:
Chemical Name: NITROGEN DIOXIDE
CAS Number: 10102-44-0 Molecular Weight: 46.01 g/mol
AEGL-1 (60 min): 0.5 ppm AEGL-2 (60 min): 12 ppm AEGL-3 (60 min): 20 ppm
IDLH: 20 ppm
Ambient Boiling Point: 69.5° F
Vapor Pressure at Ambient Temperature: 0.95 atm
Ambient Saturation Concentration: 960,220 ppm or 96.0%

ATMOSPHERIC DATA: (MANUAL INPUT OF DATA)
Wind: 2 meters/second from NE 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: 0.30 kilograms/sec Source Height: 176 meters
Release Duration: 60 minutes
Release Rate: 39.7 pounds/min
Total Amount Released: 2,381 pounds

THREAT ZONE: (GAUSSIAN SELECTED)
Model Run: Gaussian
Red : LOC is not exceeded --- (132 mg/(cu m))
Note: Threat zone was not drawn because
the ground level concentrations never exceed the LOC.
Orange: LOC is not exceeded --- (75 mg/(cu m))
Note: Threat zone was not drawn because
the ground level concentrations never exceed the LOC.

Incendie d'une cellule de stockage

Dispersion du NO2

Condition D, vent 5 m/s

SITE DATA:
Location: VENNECY, FRANCE
Building Air Exchanges Per Hour: 1.04 (unsheltered single storied)
Time: March 25, 2020 0921 hours ST (using computer's clock)

CHEMICAL DATA:
Chemical Name: NITROGEN DIOXIDE
CAS Number: 10102-44-0 Molecular Weight: 46.01 g/mol
AEGL-1 (60 min): 0.5 ppm AEGL-2 (60 min): 12 ppm AEGL-3 (60 min): 20 ppm
IDLH: 20 ppm
Ambient Boiling Point: 69.5° F
Vapor Pressure at Ambient Temperature: 0.95 atm
Ambient Saturation Concentration: 960,220 ppm or 96.0%

ATMOSPHERIC DATA: (MANUAL INPUT OF DATA)
Wind: 5 meters/second from NE 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: 0.30 kilograms/sec Source Height: 70 meters
Release Duration: 60 minutes
Release Rate: 39.7 pounds/min
Total Amount Released: 2,381 pounds

THREAT ZONE: (GAUSSIAN SELECTED)
Model Run: Gaussian
Red : LOC is not exceeded --- (132 mg/(cu m))
Note: Threat zone was not drawn because
the ground level concentrations never exceed the LOC.
Orange: LOC is not exceeded --- (75 mg/(cu m))
Note: Threat zone was not drawn because
the ground level concentrations never exceed the LOC.

Incendie d'une cellule de stockage
Dispersion du NO2
Condition F, vent 3 m/s

SITE DATA:
Location: VENNECY, FRANCE
Building Air Exchanges Per Hour: 0.65 (unsheltered single storied)
Time: March 25, 2020 0923 hours ST (using computer's clock)

CHEMICAL DATA:
Chemical Name: NITROGEN DIOXIDE
CAS Number: 10102-44-0 Molecular Weight: 46.01 g/mol
AEGL-1 (60 min): 0.5 ppm AEGL-2 (60 min): 12 ppm AEGL-3 (60 min): 20 ppm
IDLH: 20 ppm
Ambient Boiling Point: 69.5° F
Vapor Pressure at Ambient Temperature: 0.75 atm
Ambient Saturation Concentration: 756,062 ppm or 75.6%

ATMOSPHERIC DATA: (MANUAL INPUT OF DATA)
Wind: 3 meters/second from NE 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: 0.30 kilograms/sec Source Height: 117 meters
Release Duration: 60 minutes
Release Rate: 39.7 pounds/min
Total Amount Released: 2,381 pounds

THREAT ZONE: (GAUSSIAN SELECTED)
Model Run: Gaussian
Red : LOC is not exceeded --- (132 mg/(cu m))
Note: Threat zone was not drawn because
the ground level concentrations never exceed the LOC.
Orange: LOC is not exceeded --- (75 mg/(cu m))
Note: Threat zone was not drawn because
the ground level concentrations never exceed the LOC.

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

SITE DATA:
Location: VENNECY, FRANCE
Building Air Exchanges Per Hour: 0.42 (unsheltered single storied)
Time: March 25, 2020 0925 hours ST (using computer's clock)

CHEMICAL DATA:
Chemical Name: FORMIC ACID
CAS Number: 64-18-6 Molecular Weight: 46.03 g/mol
ERPG-1: 3 ppm ERPG-2: 25 ppm ERPG-3: 250 ppm
IDLH: 30 ppm LEL: 120000 ppm UEL: 380000 ppm
Ambient Boiling Point: 212.2° F
Vapor Pressure at Ambient Temperature: 0.044 atm
Ambient Saturation Concentration: 44,425 ppm or 4.44%

ATMOSPHERIC DATA: (MANUAL INPUT OF DATA)
Wind: 2 meters/second from NE 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: 0.012 kilograms/sec Source Height: 176 meters
Release Duration: 60 minutes
Release Rate: 1.59 pounds/min
Total Amount Released: 95.2 pounds

THREAT ZONE: (GAUSSIAN SELECTED)
Model Run: Gaussian
Red : LOC is not exceeded --- (31 mg/(cu m))
Note: Threat zone was not drawn because
the ground level concentrations never exceed the LOC.
Orange: LOC is not exceeded --- (12 mg/(cu m))
Note: Threat zone was not drawn because
the ground level concentrations never exceed the LOC.

Incendie d'une cellule de stockage
Dispersion du formol
Condition D, vent 5 m/s

SITE DATA:
Location: VENNECY, FRANCE
Building Air Exchanges Per Hour: 1.04 (unsheltered single storied)
Time: March 25, 2020 0926 hours ST (using computer's clock)

CHEMICAL DATA:
Chemical Name: FORMIC ACID
CAS Number: 64-18-6 Molecular Weight: 46.03 g/mol
ERPG-1: 3 ppm ERPG-2: 25 ppm ERPG-3: 250 ppm
IDLH: 30 ppm LEL: 120000 ppm UEL: 380000 ppm
Ambient Boiling Point: 212.2° F
Vapor Pressure at Ambient Temperature: 0.044 atm
Ambient Saturation Concentration: 44,425 ppm or 4.44%

ATMOSPHERIC DATA: (MANUAL INPUT OF DATA)
Wind: 5 meters/second from NE 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: 0.012 kilograms/sec Source Height: 70 meters
Release Duration: 60 minutes
Release Rate: 1.59 pounds/min
Total Amount Released: 95.2 pounds

THREAT ZONE: (GAUSSIAN SELECTED)
Model Run: Gaussian
Red : LOC is not exceeded --- (31 mg/(cu m))
Note: Threat zone was not drawn because
the ground level concentrations never exceed the LOC.
Orange: LOC is not exceeded --- (12 mg/(cu m))
Note: Threat zone was not drawn because
the ground level concentrations never exceed the LOC.

Incendie d’une cellule de stockage
Dispersion du formol
Condition F, vent 3 m/s

SITE DATA:
Location: VENNECY, FRANCE
Building Air Exchanges Per Hour: 0.65 (unsheltered single storied)
Time: March 25, 2020 0927 hours ST (using computer's clock)

CHEMICAL DATA:
Chemical Name: FORMIC ACID
CAS Number: 64-18-6 Molecular Weight: 46.03 g/mol
ERPG-1: 3 ppm ERPG-2: 25 ppm ERPG-3: 250 ppm
IDLH: 30 ppm LEL: 120000 ppm UEL: 380000 ppm
Ambient Boiling Point: 212.2° F
Vapor Pressure at Ambient Temperature: 0.034 atm
Ambient Saturation Concentration: 34,398 ppm or 3.44%

ATMOSPHERIC DATA: (MANUAL INPUT OF DATA)
Wind: 3 meters/second from NE 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: 0.012 kilograms/sec Source Height: 117 meters
Release Duration: 60 minutes
Release Rate: 1.59 pounds/min
Total Amount Released: 95.2 pounds

THREAT ZONE: (GAUSSIAN SELECTED)
Model Run: Gaussian
Red : LOC is not exceeded --- (31 mg/(cu m))
Note: Threat zone was not drawn because
the ground level concentrations never exceed the LOC.
Orange: LOC is not exceeded --- (12 mg/(cu m))
Note: Threat zone was not drawn because
the ground level concentrations never exceed the LOC.

Incendie d’une cellule de stockage
Dispersion des fumées de l’incendie
Condition A, vent 2 m/s

SITE DATA:
Location: VENNECY, FRANCE
Building Air Exchanges Per Hour: 0.42 (unsheltered single storied)
Time: March 24, 2020 1711 hours ST (using computer's clock)

ATMOSPHERIC DATA: (MANUAL INPUT OF DATA)
Wind: 2 meters/second from NE 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: 238 kilograms/sec Source Height: 176 meters
Release Duration: 60 minutes
Release Rate: 31,482 pounds/min
Total Amount Released: 1,888,800 pounds
Note: This chemical may flash boil and/or result in two phase flow.
Use both dispersion modules to investigate its potential behavior.

THREAT ZONE:
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 d’une cellule de stockage
Dispersion des fumées de l’incendie
Condition D, vent 5 m/s

SITE DATA:
Location: VENNECY, FRANCE
Building Air Exchanges Per Hour: 1.04 (unsheltered single storied)
Time: March 24, 2020 1724 hours ST (using computer's clock)

ATMOSPHERIC DATA: (MANUAL INPUT OF DATA)
Wind: 5 meters/second from NE 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: 238 kilograms/sec Source Height: 70 meters
Release Duration: 60 minutes
Release Rate: 31,482 pounds/min
Total Amount Released: 1,888,800 pounds
Note: This chemical may flash boil and/or result in two phase flow.
Use both dispersion modules to investigate its potential behavior.

THREAT ZONE:
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 d’une cellule de stockage
Dispersion des fumées de l‘incendie
Condition F, vent 3 m/s

SITE DATA:
Location: VENNECY, FRANCE
Building Air Exchanges Per Hour: 0.65 (unsheltered single storied)
Time: March 24, 2020 1729 hours ST (using computer's clock)

ATMOSPHERIC DATA: (MANUAL INPUT OF DATA)
Wind: 3 meters/second from NE 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: 238 kilograms/sec Source Height: 117 meters
Release Duration: 60 minutes
Release Rate: 31,482 pounds/min
Total Amount Released: 1,888,800 pounds
Note: This chemical may flash boil and/or result in two phase flow.
Use both dispersion modules to investigate its potential behavior.

THREAT ZONE:
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.