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: PERSAN, FRANCE

Building Air Exchanges Per Hour: 0.42 (unsheltered single storied) Time: May 9, 2018 1512 hours ST (using computer's clock)

ATMOSPHERIC DATA: (MANUAL INPUT OF DATA)

Wind: 2 meters/second from SW at 3 meters

Ground Roughness: open country
Air Temperature: 20° C

Cloud Cover: 5 tenths
Stability Class: A (user override)

No Inversion Height Relative Humidity: 50%

SOURCE STRENGTH:

Direct Source: 66,7 kilograms/sec Source Height: 358 meters

Release Duration: 60 minutes Release Rate: 4 000 kilograms/min

Total Amount Released: 240 120 kilograms

THREAT ZONE: (GAUSSIAN SELECTED)

Model Run: Gaussian

Red: LOC is not exceeded --- (79 mg/(cu m))

Incendie de trois cellules de stockage Dispersion des suies Condition D. vont 5 m/s

Condition D, vent 5 m/s

SITE DATA:

Location: PERSAN, FRANCE

Building Air Exchanges Per Hour: 1.04 (unsheltered single storied) Time: May 9, 2018 1513 hours ST (using computer's clock)

ATMOSPHERIC DATA: (MANUAL INPUT OF DATA)

Wind: 5 meters/second from SW at 3 meters

Ground Roughness: open country Cloud Cover: 5 tenths
Air Temperature: 20° C Stability Class: D (user override)

No Inversion Height Relative Humidity: 50%

SOURCE STRENGTH:

Direct Source: 66,7 kilograms/sec Source Height: 143 meters

Release Duration: 60 minutes Release Rate: 4 000 kilograms/min

Total Amount Released: 240 120 kilograms

THREAT ZONE: (GAUSSIAN SELECTED)

Model Run: Gaussian

Red: LOC is not exceeded --- (79 mg/(cu m))

Incendie de trois cellules de stockage **Dispersion des suies**

Condition F, vent 3 m/s

SITE DATA:

Location: PERSAN, FRANCE

Building Air Exchanges Per Hour: 0.65 (unsheltered single storied) Time: May 9, 2018 1514 hours ST (using computer's clock)

ATMOSPHERIC DATA: (MANUAL INPUT OF DATA)

Wind: 3 meters/second from SW at 3 meters

Ground Roughness: open country
Air Temperature: 15° C

Cloud Cover: 5 tenths
Stability Class: F (user override)

No Inversion Height Relative Humidity: 50%

SOURCE STRENGTH:

Direct Source: 66,7 kilograms/sec Source Height: 239 meters

Release Duration: 60 minutes Release Rate: 4 000 kilograms/min

Total Amount Released: 240 120 kilograms

THREAT ZONE: (GAUSSIAN SELECTED)

Model Run: Gaussian

Red : LOC is not exceeded --- (79 mg/(cu m))

Incendie de trois cellules de stockage **Dispersion du Monoxyde de carbone**

Condition A, vent 2 m/s

SITE DATA:

Location: PERSAN, FRANCE

Building Air Exchanges Per Hour: 0.42 (unsheltered single storied) Time: May 9, 2018 1516 hours ST (using computer's clock)

CHEMICAL DATA:

Chemical Name: CARBON MONOXIDE 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: -191.7° C

Vapor Pressure at Ambient Temperature: greater than 1 atm Ambient Saturation Concentration: 1000000 ppm or 100,0%

ATMOSPHERIC DATA: (MANUAL INPUT OF DATA)

Wind: 2 meters/second from SW at 3 meters

Ground Roughness: open country
Air Temperature: 20° C

Cloud Cover: 5 tenths
Stability Class: A (user override)

No Inversion Height Relative Humidity: 50%

SOURCE STRENGTH:

Direct Source: 209,22 kilograms/sec 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: 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))

Incendie de trois cellules de stockage Dispersion du Monoxyde de carbone

Condition D, vent 5 m/s

SITE DATA:

Location: PERSAN, FRANCE

Building Air Exchanges Per Hour: 1.04 (unsheltered single storied) Time: May 9, 2018 1517 hours ST (using computer's clock)

CHEMICAL DATA:

Chemical Name: CARBON MONOXIDE 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: -191.7° C

Vapor Pressure at Ambient Temperature: greater than 1 atm Ambient Saturation Concentration: 1000000 ppm or 100,0%

ATMOSPHERIC DATA: (MANUAL INPUT OF DATA)

Wind: 5 meters/second from SW 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: 209,22 kilograms/sec 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: 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))

Incendie de trois cellules de stockage **Dispersion du Monoxyde de carbone**

Condition F, vent 3 m/s

SITE DATA:

Location: PERSAN, FRANCE

Building Air Exchanges Per Hour: 0.65 (unsheltered single storied) Time: May 9, 2018 1517 hours ST (using computer's clock)

CHEMICAL DATA:

Chemical Name: CARBON MONOXIDE 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: -191.7° C

Vapor Pressure at Ambient Temperature: greater than 1 atm Ambient Saturation Concentration: 1000000 ppm or 100,0%

ATMOSPHERIC DATA: (MANUAL INPUT OF DATA)

Wind: 3 meters/second from SW at 3 meters

Ground Roughness: open country
Air Temperature: 15° C

Cloud Cover: 5 tenths
Stability Class: F (user override)

No Inversion Height Relative Humidity: 50%

SOURCE STRENGTH:

Direct Source: 209,22 kilograms/sec 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: 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))

Incendie de 3 cellules de stockage Dispersion du Dioxyde de carbone

Condition A, vent 2 m/s

SITE DATA INFORMATION:

Location: PERSAN, FRANCE

Building Air Exchanges Per Hour: 0.42 (unsheltered single storied) Time: May 9, 2018 1520 hours ST (using computer's clock)

CHEMICAL INFORMATION:

Chemical Name: CARBON DIOXIDE Molecular Weight: 44.01 g/mol

PAC-1: 30000 ppm PAC-2: 30000 ppm PAC-3: 50000 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: 2092 kilograms/sec Source Height: 358 meters

Release Duration: 60 minutes

Release Rate: 126 000 kilograms/min

Total Amount Released: 7 531 200 kilograms

FOOTPRINT INFORMATION: (GAUSS SELECTED)

Dispersion Module: Gaussian

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

Incendie de 3 cellules de stockage **Dispersion du Dioxyde de carbone**

Condition D, vent 5 m/s

SITE DATA INFORMATION:

Location: PERSAN, FRANCE

Building Air Exchanges Per Hour: 1.04 (unsheltered single storied) Time: May 9, 2018 1521 hours ST (using computer's clock)

CHEMICAL INFORMATION:

Chemical Name: CARBON DIOXIDE Molecular Weight: 44.01 g/mol

PAC-1: 30000 ppm PAC-2: 30000 ppm PAC-3: 50000 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: 2092 kilograms/sec Source Height: 143 meters

Release Duration: 60 minutes

Release Rate: 126 000 kilograms/min Total Amount Released: 7 531 200 kilograms

FOOTPRINT INFORMATION: (GAUSS SELECTED)

Dispersion Module: Gaussian

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

Incendie de 3 cellules de stockage **Dispersion du Dioxyde de carbone**

Condition F, vent 3 m/s

SITE DATA INFORMATION:

Location: PERSAN, FRANCE

Building Air Exchanges Per Hour: 0.61 (unsheltered single storied) Time: May 9, 2018 1522 hours ST (using computer's clock)

CHEMICAL INFORMATION:

Chemical Name: CARBON DIOXIDE Molecular Weight: 44.01 g/mol

PAC-1: 30000 ppm PAC-2: 30000 ppm PAC-3: 50000 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

Relative Humidity: 50% Ground Roughness: open country

Cloud Cover: 5 tenths

SOURCE STRENGTH INFORMATION:

Direct Source: 2092 kilograms/sec Source Height: 239 meters

Release Duration: 60 minutes

Release Rate: 126 000 kilograms/min Total Amount Released: 7 531 200 kilograms

FOOTPRINT INFORMATION: (GAUSS SELECTED)

Dispersion Module: Gaussian

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

Incendie de trois cellules de stockage **Dispersion du HCI**

Condition A, vent 2 m/s

SITE DATA:

Location: PERSAN, FRANCE

Building Air Exchanges Per Hour: 0.42 (unsheltered single storied) Time: May 9, 2018 1523 hours ST (using computer's clock)

CHEMICAL DATA:

Chemical Name: HYDROGEN CHLORIDE 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: -85.3° 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: 2 meters/second from SW at 3 meters

Ground Roughness: open country
Air Temperature: 20° C

Cloud Cover: 5 tenths
Stability Class: A (user override)

No Inversion Height Relative Humidity: 50%

SOURCE STRENGTH:

Direct Source: 78,9 kilograms/sec Source Height: 358 meters

Release Duration: 60 minutes Release Rate: 4 730 kilograms/min

Total Amount Released: 284 040 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))

Incendie de trois cellules de stockage Dispersion du HCI

Condition D, vent 5 m/s

SITE DATA:

Location: PERSAN, FRANCE

Building Air Exchanges Per Hour: 1.04 (unsheltered single storied) Time: May 9, 2018 1523 hours ST (using computer's clock)

CHEMICAL DATA:

Chemical Name: HYDROGEN CHLORIDE 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: -85.3° 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 SW 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: 78,9 kilograms/sec Source Height: 143 meters

Release Duration: 60 minutes Release Rate: 4 730 kilograms/min

Total Amount Released: 284 040 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))

Incendie de trois cellules de stockage **Dispersion du HCI**

Condition F, vent 3 m/s

SITE DATA:

Location: PERSAN, FRANCE

Building Air Exchanges Per Hour: 0.65 (unsheltered single storied) Time: May 9, 2018 1524 hours ST (using computer's clock)

CHEMICAL DATA:

Chemical Name: HYDROGEN CHLORIDE 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: -85.3° 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 SW at 3 meters

Ground Roughness: open country
Air Temperature: 15° C

Cloud Cover: 5 tenths
Stability Class: F (user override)

No Inversion Height Relative Humidity: 50%

SOURCE STRENGTH:

Direct Source: 78,9 kilograms/sec Source Height: 239 meters

Release Duration: 60 minutes Release Rate: 4 730 kilograms/min

Total Amount Released: 284 040 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))

Incendie de trois cellules de stockage **Dispersion du HCN**

Condition A, vent 2 m/s

SITE DATA:

Location: PERSAN, FRANCE

Building Air Exchanges Per Hour: 0.42 (unsheltered single storied) Time: May 9, 2018 1526 hours ST (using computer's clock)

CHEMICAL DATA:

Chemical Name: HYDROGEN CYANIDE 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: 25.3° C

Vapor Pressure at Ambient Temperature: 0.81 atm Ambient Saturation Concentration: 815,195 ppm or 81.5%

ATMOSPHERIC DATA: (MANUAL INPUT OF DATA)

Wind: 2 meters/second from SW at 3 meters

Ground Roughness: open country
Air Temperature: 20° C

Cloud Cover: 5 tenths
Stability Class: A (user override)

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))

Incendie de trois cellules de stockage **Dispersion du HCN**

Condition D, vent 5 m/s

SITE DATA:

Location: PERSAN, FRANCE

Building Air Exchanges Per Hour: 1.04 (unsheltered single storied) Time: May 9, 2018 1527 hours ST (using computer's clock)

CHEMICAL DATA:

Chemical Name: HYDROGEN CYANIDE 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: 25.3° C

Vapor Pressure at Ambient Temperature: 0.81 atm Ambient Saturation Concentration: 815,195 ppm or 81.5%

ATMOSPHERIC DATA: (MANUAL INPUT OF DATA)

Wind: 5 meters/second from SW 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: 6,12 kilograms/sec Source Height: 143 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))

Incendie de trois cellules de stockage **Dispersion du HCN**

Condition F, vent 3 m/s

SITE DATA:

Location: PERSAN, FRANCE

Building Air Exchanges Per Hour: 0.65 (unsheltered single storied) Time: May 9, 2018 1527 hours ST (using computer's clock)

CHEMICAL DATA:

Chemical Name: HYDROGEN CYANIDE 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: 25.3° C

Vapor Pressure at Ambient Temperature: 0.81 atm Ambient Saturation Concentration: 815,195 ppm or 81.5%

ATMOSPHERIC DATA: (MANUAL INPUT OF DATA)

Wind: 3 meters/second from SW at 3 meters

Ground Roughness: open country
Air Temperature: 15° C

Cloud Cover: 5 tenths
Stability Class: F (user override)

No Inversion Height Relative Humidity: 50%

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))

Incendie de trois cellules de stockage Dispersion des fumées de l'incendie (seuil équivalent)

Condition A, vent 2 m/s

SITE DATA:

Location: PERSAN, FRANCE

Building Air Exchanges Per Hour: 0.42 (unsheltered single storied) Time: May 9, 2018 1530 hours ST (using computer's clock)

ATMOSPHERIC DATA: (MANUAL INPUT OF DATA)

Wind: 2 meters/second from SW 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: 9 527 kilograms/sec Source Height: 358 meters

Release Duration: 60 minutes

Release Rate: 572 000 kilograms/min

Total Amount Released: 34 297 200 kilograms

THREAT ZONE: (GAUSSIAN SELECTED)

Model Run: 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

Incendie de trois cellules de stockage Dispersion des fumées de l'incendie (seuil équivalent) Condition D, vent 5 m/s

SITE DATA:

Location: PERSAN, FRANCE

Building Air Exchanges Per Hour: 1.04 (unsheltered single storied) Time: May 9, 2018 1530 hours ST (using computer's clock)

ATMOSPHERIC DATA: (MANUAL INPUT OF DATA)

Wind: 5 meters/second from SW 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: 9 527 kilograms/sec Source Height: 143 meters

Release Duration: 60 minutes

Release Rate: 572 000 kilograms/min

Total Amount Released: 34 297 200 kilograms

THREAT ZONE: (GAUSSIAN SELECTED)

Model Run: 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

Incendie de trois cellules de stockage Dispersion des fumées de l'incendie (seuil équivalent)

Condition F, vent 3 m/s

SITE DATA:

Location: PERSAN, FRANCE

Building Air Exchanges Per Hour: 0.65 (unsheltered single storied) Time: May 9, 2018 1532 hours ST (using computer's clock)

ATMOSPHERIC DATA: (MANUAL INPUT OF DATA)

Wind: 3 meters/second from SW at 3 meters

Ground Roughness: open country Cloud Cover: 5 tenths Air Temperature: 15° C Stability Class: F (user override)

Relative Humidity: 50% No Inversion Height

SOURCE STRENGTH:

Direct Source: 9 527 kilograms/sec Source Height: 239 meters

Release Duration: 60 minutes

Release Rate: 572 000 kilograms/min

Total Amount Released: 34 297 200 kilograms

THREAT ZONE: (GAUSSIAN SELECTED)

Model Run: 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