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Appendix 21. Overview calculated times and development different methods for the possibility of escape and survivability

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Appendix 21. Overview calculated times and development different methods for the possibility of escape and survivability

This appendix presents the following information for the individual tests for the escape phase (0 - 20 minutes) for the first-floor rooms:

> The development of the fire conditions, irritant gases, asphyxiant gases, heat and visibility, for the different methods.
> The times when there is no longer a safe escape, an impaired escape, or a life-threatening situation; i.e. when the end of a situation, e.g. a life-threatening situation, has been reached and the situation has turned into the next-level situation, e.g. fatal. This is presented for each individual group. These times have been rounded to one decimal place and are presented in a table and by means of stacked bars.
> An overview of the times of the different methods (only for the fire room, corridor 1.2 at a height of 1.5 m, and corridor 1.2 at a height of 0.3 m). These times have been rounded to one decimal place and are presented by means of stacked bars.
> An overview of the times of the most critical method (the method whose threshold value is exceeded the first). This is presented for each individual group. These times have been rounded to one decimal place and are presented in a table and by means of stacked bars.

The following information is presented for the deployment phase (20 - 55 minutes):

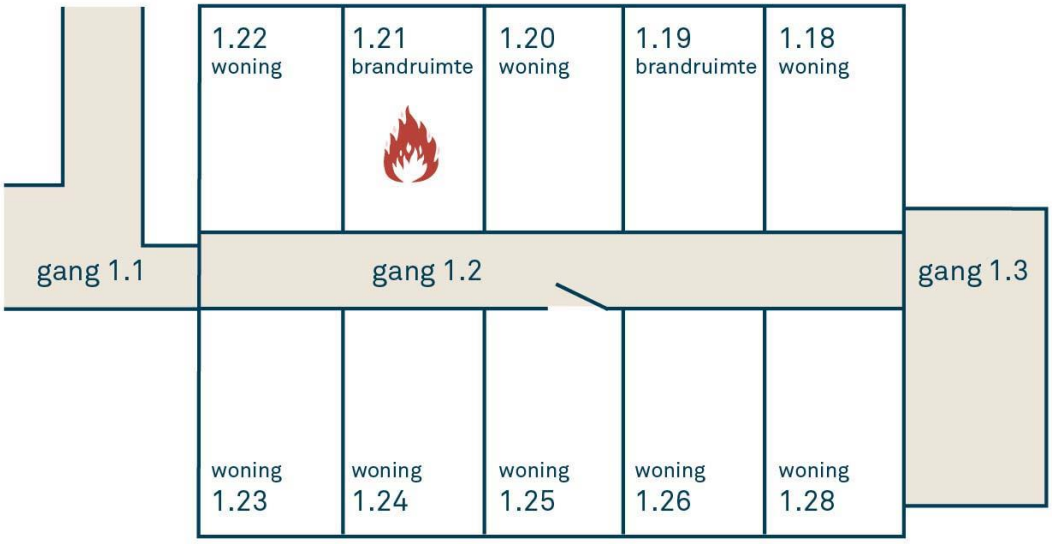
> The development of the fire conditions, irritant gases, asphyxiant gases, heat and visibility, for the different methods. The development is shown for the time from 0 to 55 minutes. The development is shown for the rooms on the first floor. In addition, as regards the method for the fire condition of asphyxiant gases, the development on the ground, second, and third floors is presented as well.
> An overview of the times of the most critical method (the method whose threshold value is exceeded the first). This is presented for each individual group. This is shown for the rooms on the first floor for the time from 20 to 55 minutes. These times have been rounded to one decimal place and are presented in a table and by means of stacked bars.

A description of the test in question is first given for every specific test. An overview of the 'FEDs' per test is presented below.

Test 1 (variant 0: door open) 24/06/2019

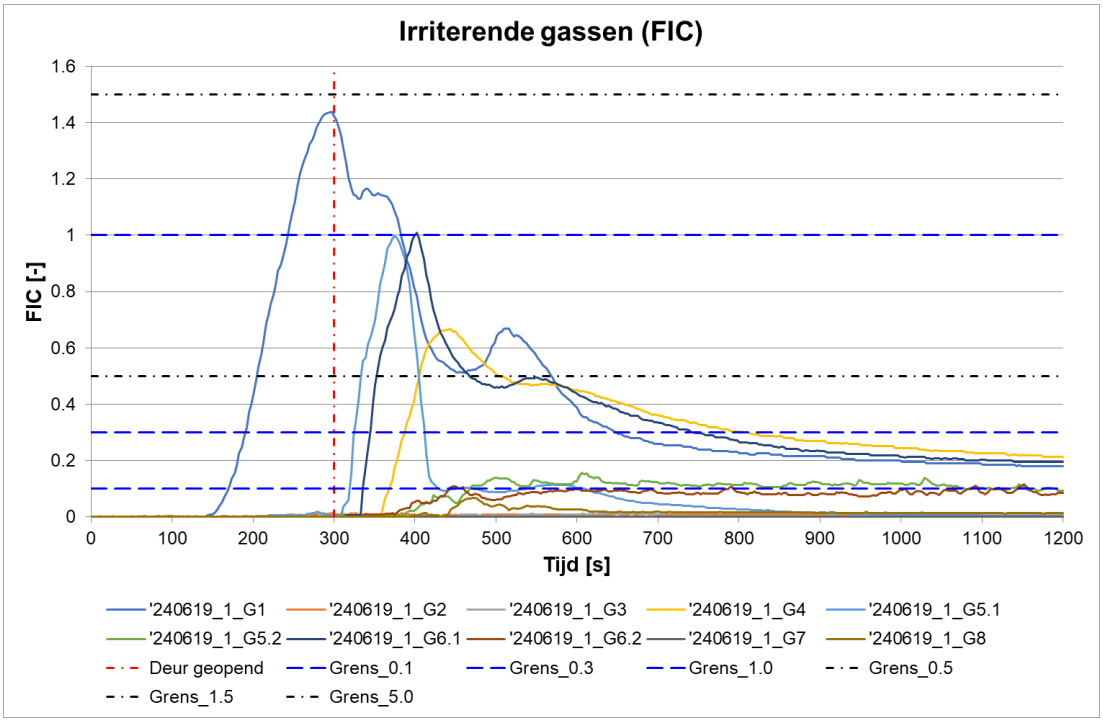
A. Description of the test

Test number	1
Date	24/06/2019
Morning / afternoon	Afternoon
Fire room	1.21
Door to the fire room open / closed	Open
Fire service deployment	None
Extra measures	None
Specific aspects	Gas measurement in corridor 1.3 - no readings. Meteorological data was retrieved from KNMI.nl after the test. The deployment crew started final extinguishing and ventilating after 45 minutes.



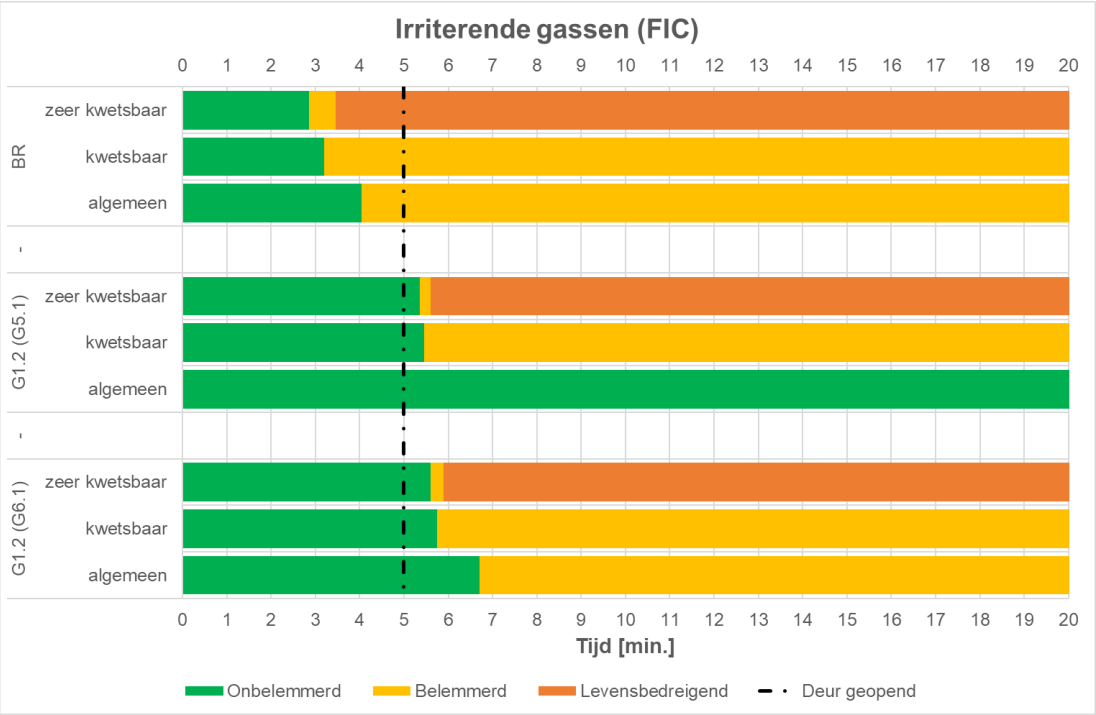
B. Escape phase (0 - 20 minutes)

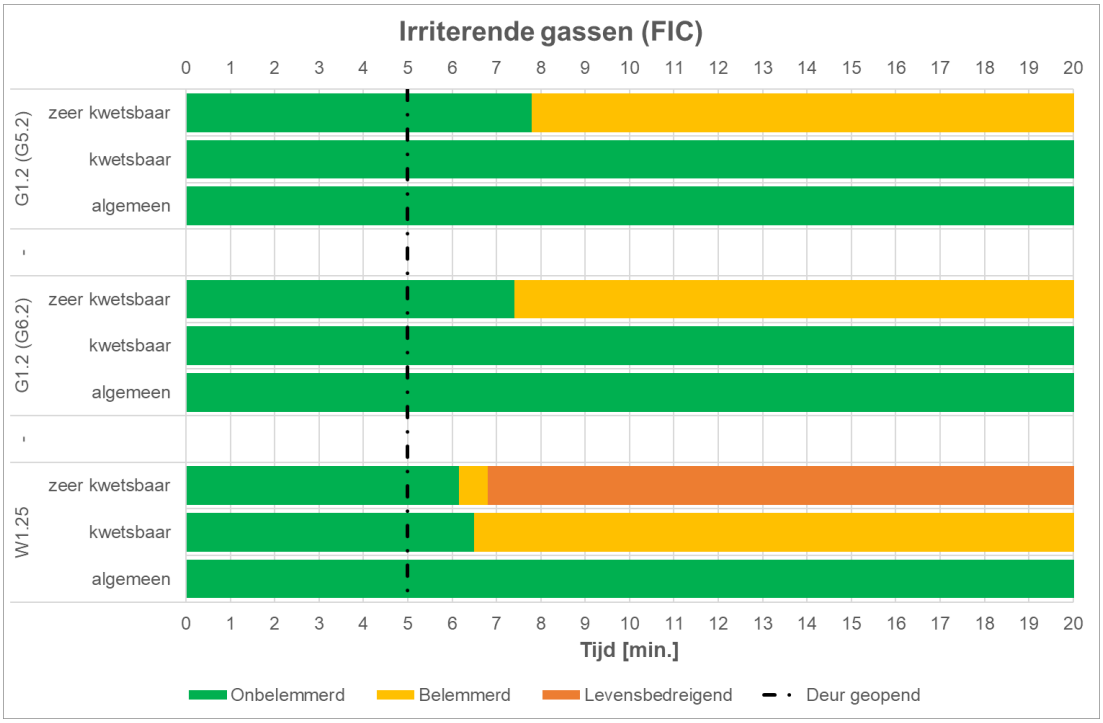
Irritant gases

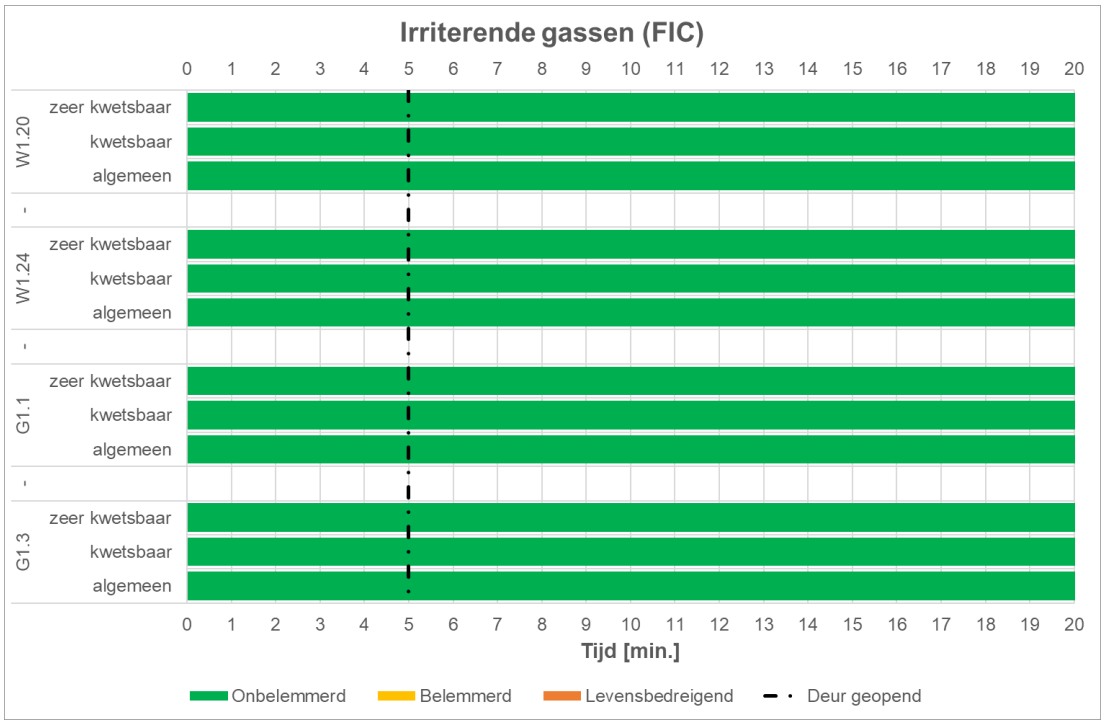


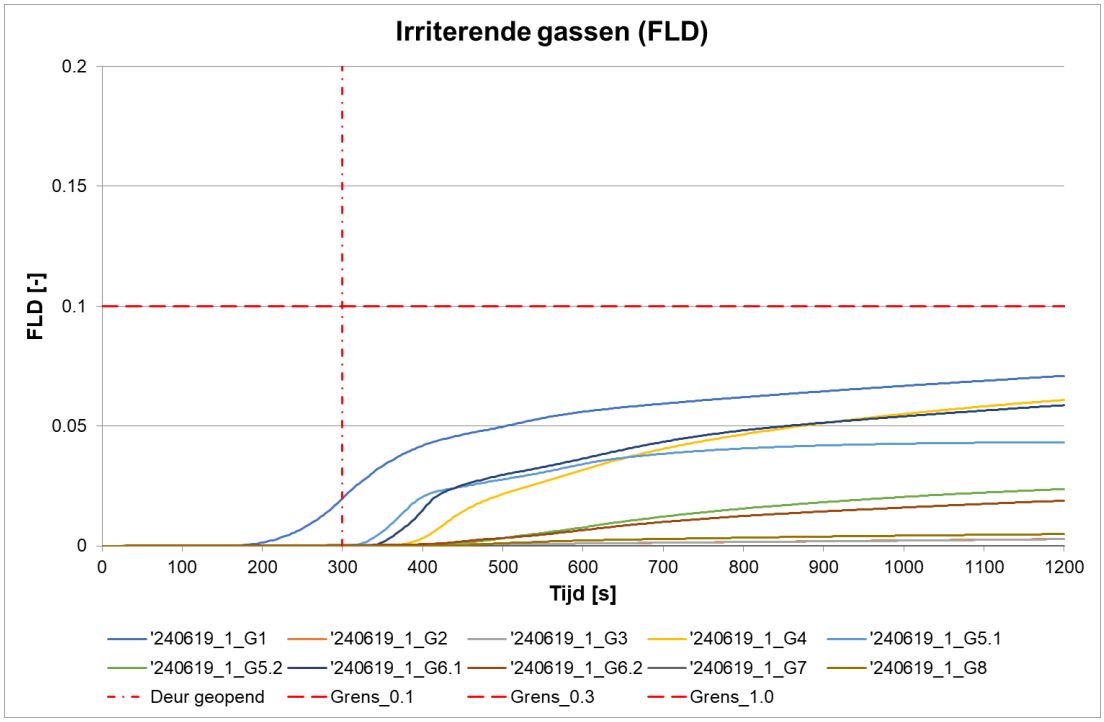
	Irritant gases (FIC)				
	Group	Threshold [-]	Safe [min.]	Impaired [min.]	Life-threatening [min.]
Fire room 1.21 G1	Highly vulnerable	0.1/0.5	2.9	3.5	> 3.5
	Vulnerable	0.3/1.5	3.2	> 3.2	-
	General	1.0/5.0	4.1	> 4.1	-
Residence 1.20 G2	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Residence 1.24 G3	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-

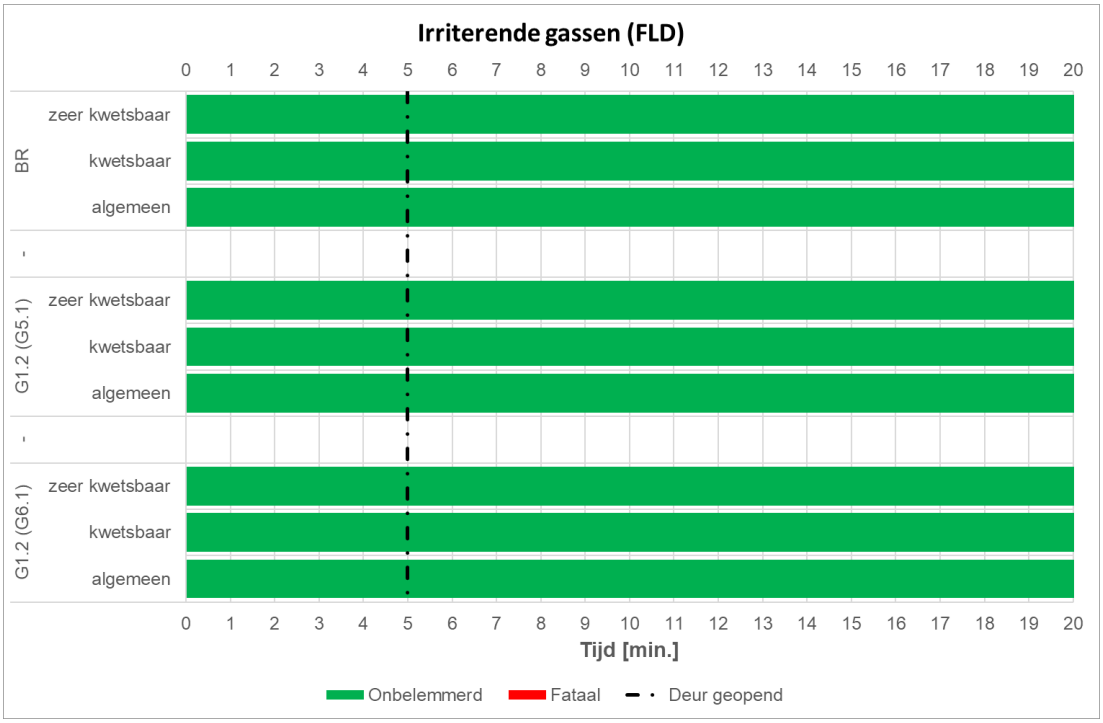
Residence 1.25 G4	Highly vulnerable	0.1/0.5	6.2	6.8	> 6.8
	Vulnerable	0.3/1.5	6.5	> 55.0	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.5	5.4	5.6	> 5.6
	Vulnerable	0.3/1.5	5.5	> 55.0	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.5	7.8	> 55.0	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.5	5.6	5.9	> 5.9
	Vulnerable	0.3/1.5	5.8	> 55.0	-
	General	1.0/5.0	6.7	> 55.0	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.5	7.4	> 55.0	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.5	-	-	-
	Vulnerable	0.3/1.5	-	-	-
	General	1.0/5.0	-	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-


Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G5.1)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.1)
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend


Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend


Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend

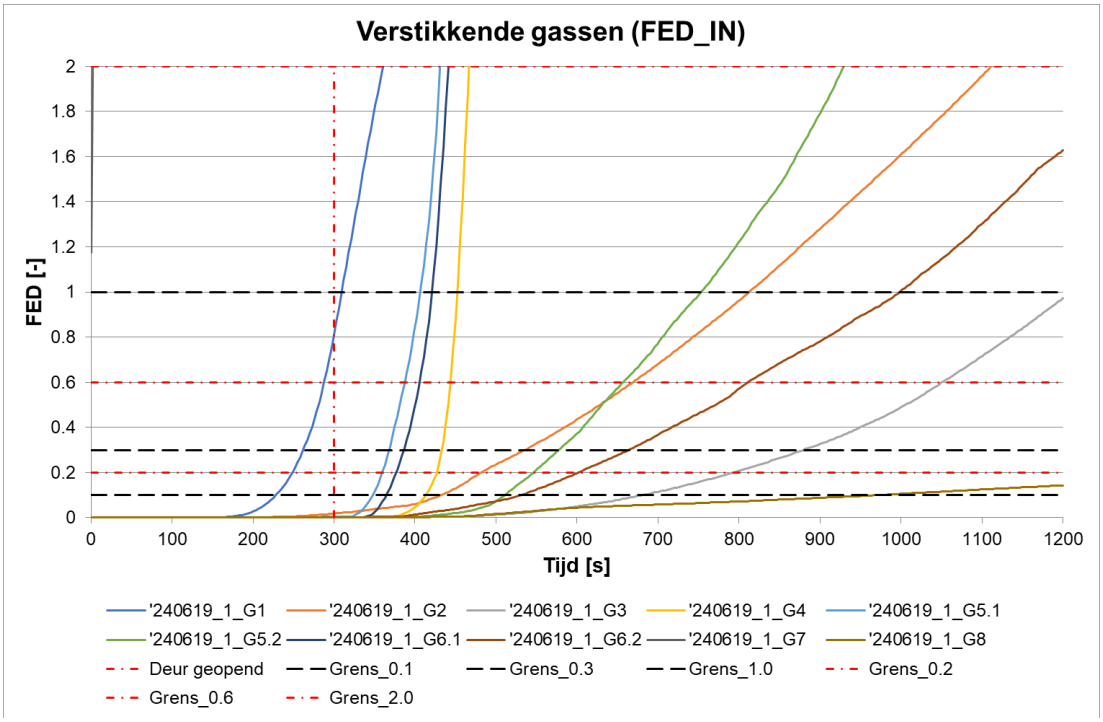

Irriterende gassen (FLD)
0.2
0.15
0.1
0.05
0
FLD [-]
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
Tijd [s]
'240619_1_G1
'240619_1_G2
'240619_1_G3
'240619_1_G4
'240619_1_G5.1
'240619_1_G5.2
'240619_1_G6.1
'240619_1_G6.2
'240619_1_G7
'240619_1_G8
Deur geopend
Grens_0.1
Grens_0.3
Grens_1.0



Irritant gases (FLD)				
	Group	Threshold [-]	Safe [min.]	Impaired [min.]
Fire room 1.19 or 1.21 G1	Highly vulnerable	0.1	53.8	> 53.8
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.20 G2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.24 G3	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-

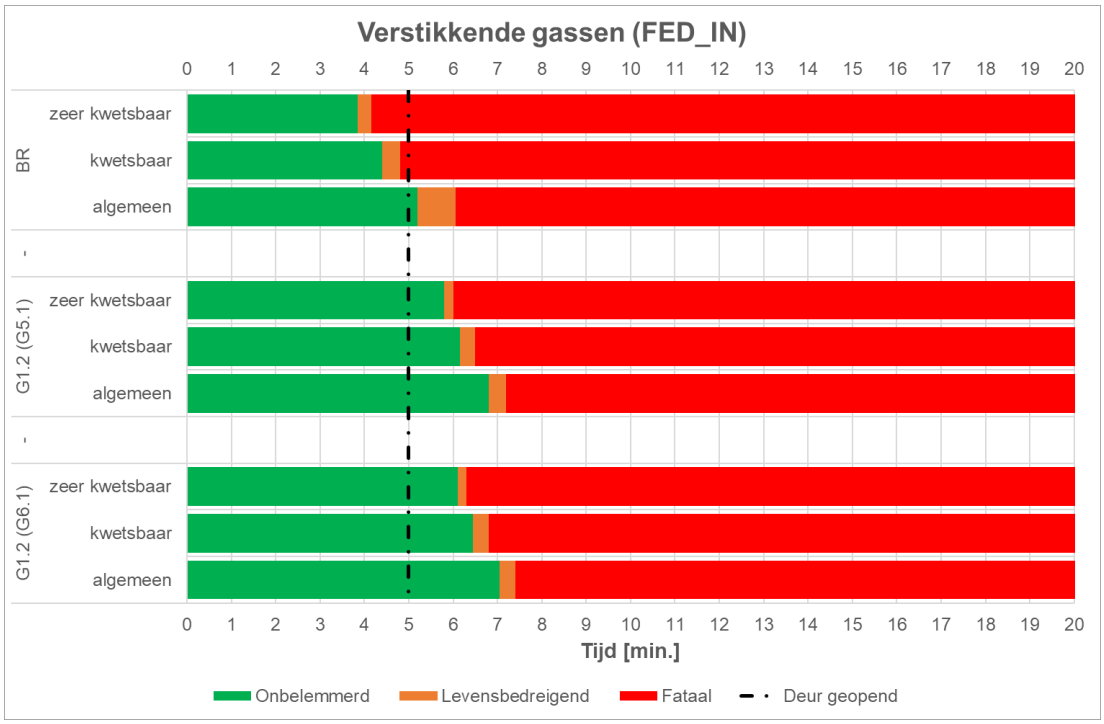
Residence 1.25 G4	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G5.1	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G5.2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G6.1	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G6.2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.1 G7	Highly vulnerable	0.1	-	-
	Vulnerable	0.3	-	-
	General	1.0	-	-
Corridor 1.3 G8	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-

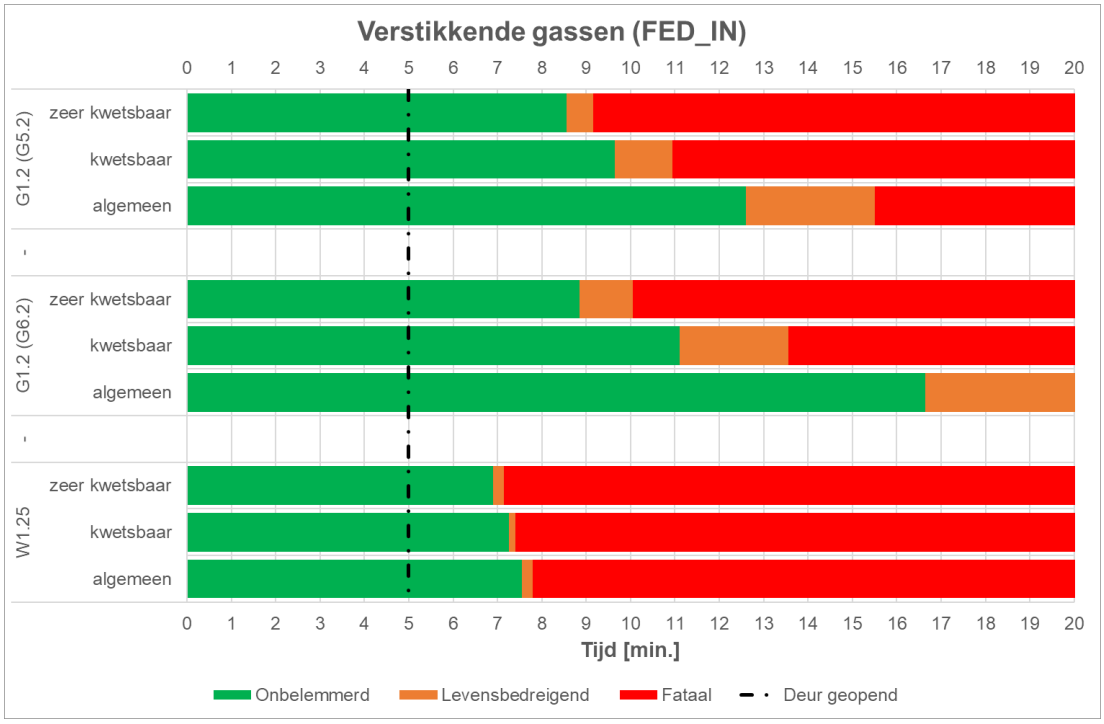
Asphyxiant gases

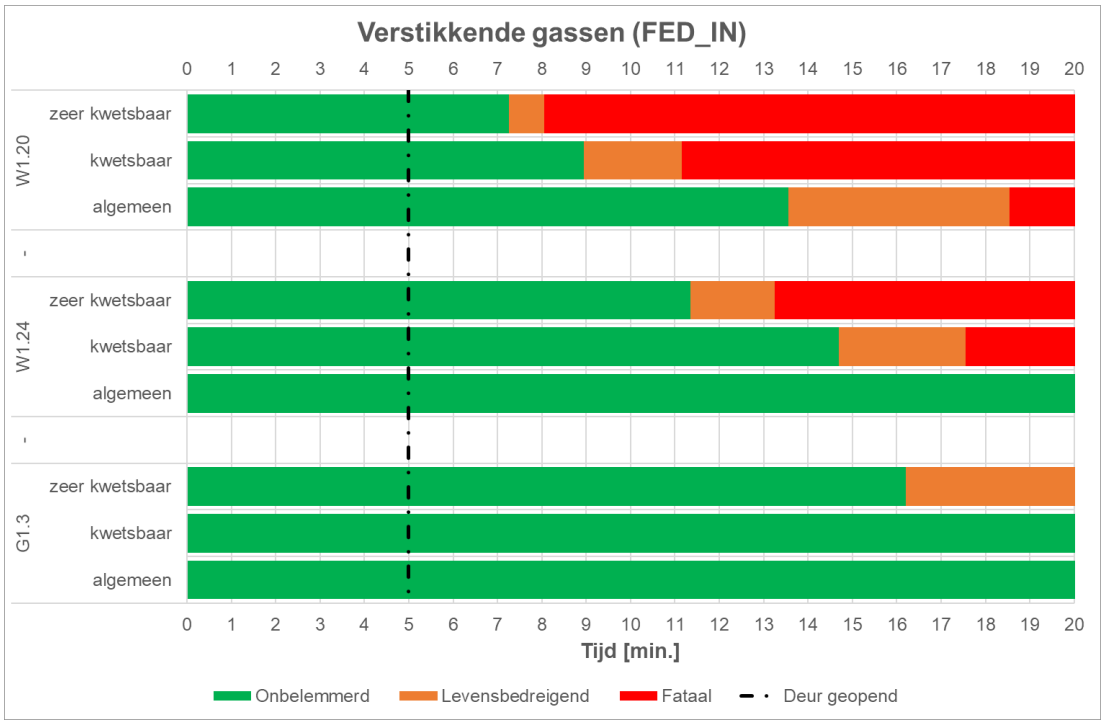


		Asphyxiant gases (FED_IN)			
	Group	Threshold [-]	Safe [min.]	Life-threatening [min.]	Fatal [min.]
Fire room 1.21 G1	Highly vulnerable	0.1/0.2	3.9	4.2	> 4.3
	Vulnerable	0.3/0.6	4.4	4.8	> 4.8
	General	1.0/2.0	5.2	6.1	> 6.1
Residence 1.20 G2	Highly vulnerable	0.1/0.2	7.3	8.1	> 8.1
	Vulnerable	0.3/0.6	9.0	11.2	> 11.2
	General	1.0/2.0	13.6	18.6	>18.6
Residence 1.24 G3	Highly vulnerable	0.1/0.2	11.4	13.3	> 13.3
	Vulnerable	0.3/0.6	14.7	17.6	> 17.6
	General	1.0/2.0	20.2	25.2	> 25.2

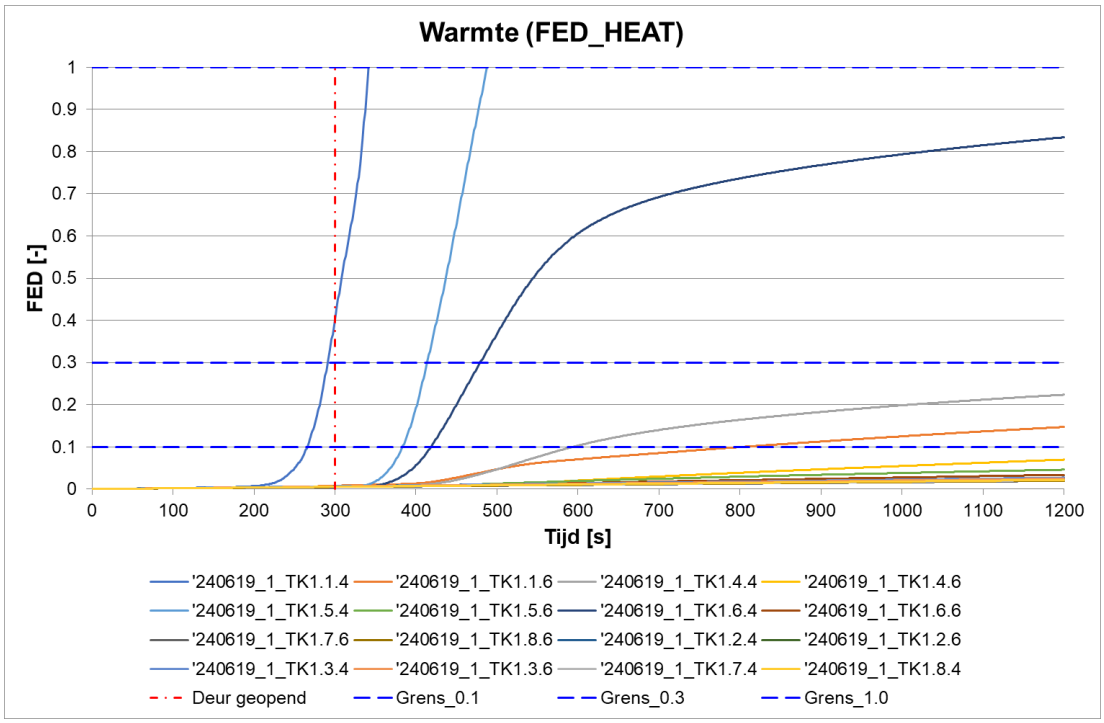
Residence 1.25 G4	Highly vulnerable	0.1/0.2	6.9	7.2	> 7.2
	Vulnerable	0.3/0.6	7.3	7.4	> 7.4
	General	1.0/2.0	7.6	7.8	> 7.8
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.2	5.8	6.0	> 6.0
	Vulnerable	0.3/0.6	6.2	6.5	> 6.5
	General	1.0/2.0	6.8	7.2	> 7.2
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.2	8.6	9.2	> 9.2
	Vulnerable	0.3/0.6	9.7	11.0	> 11.0
	General	1.0/2.0	12.6	15.5	> 15.5
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.2	6.1	6.3	> 6.3
	Vulnerable	0.3/0.6	6.5	6.8	> 6.8
	General	1.0/2.0	7.1	7.4	> 7.4
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.2	8.9	10.1	> 10.1
	Vulnerable	0.3/0.6	11.1	13.6	> 13.6
	General	1.0/2.0	16.7	21.9	> 21.9
Corridor 1.1 G7	Highly vulnerable	0.1/0.2	-	-	-
	Vulnerable	0.3/0.6	-	-	-
	General	1.0/2.0	-	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.2	16.2	25.0	> 25.0
	Vulnerable	0.3/0.6	33.9	54.5	> 54.5
	General	1.0/2.0	> 55.0	-	-


Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G5.1)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.1)
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend


Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend

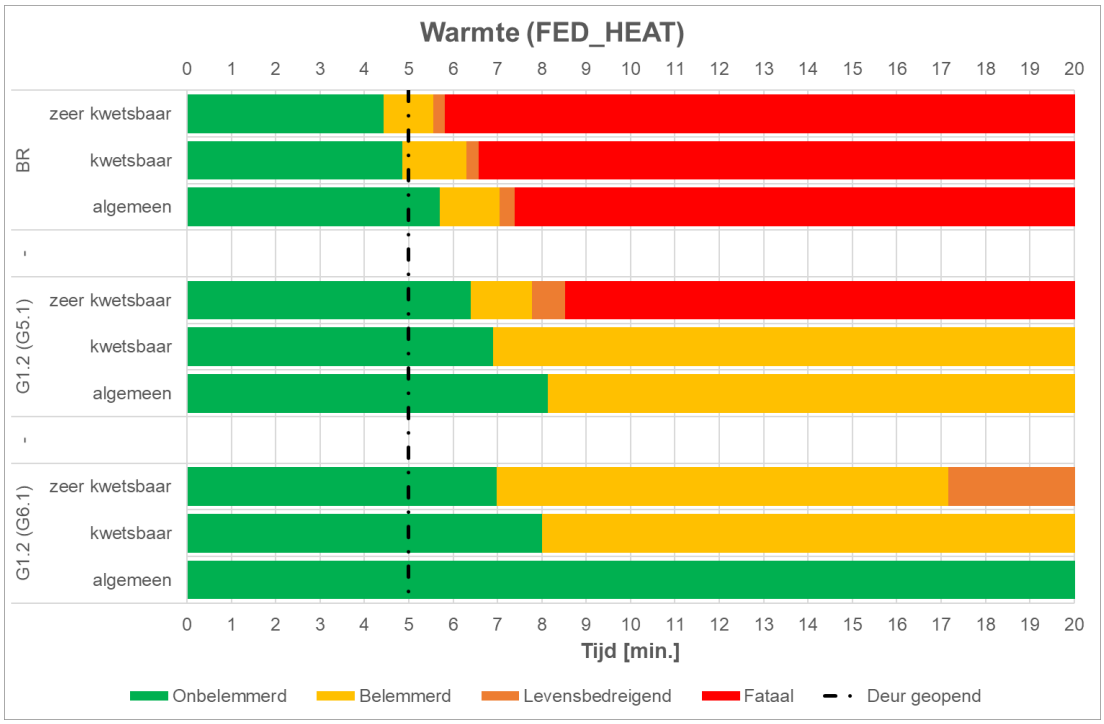

Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend

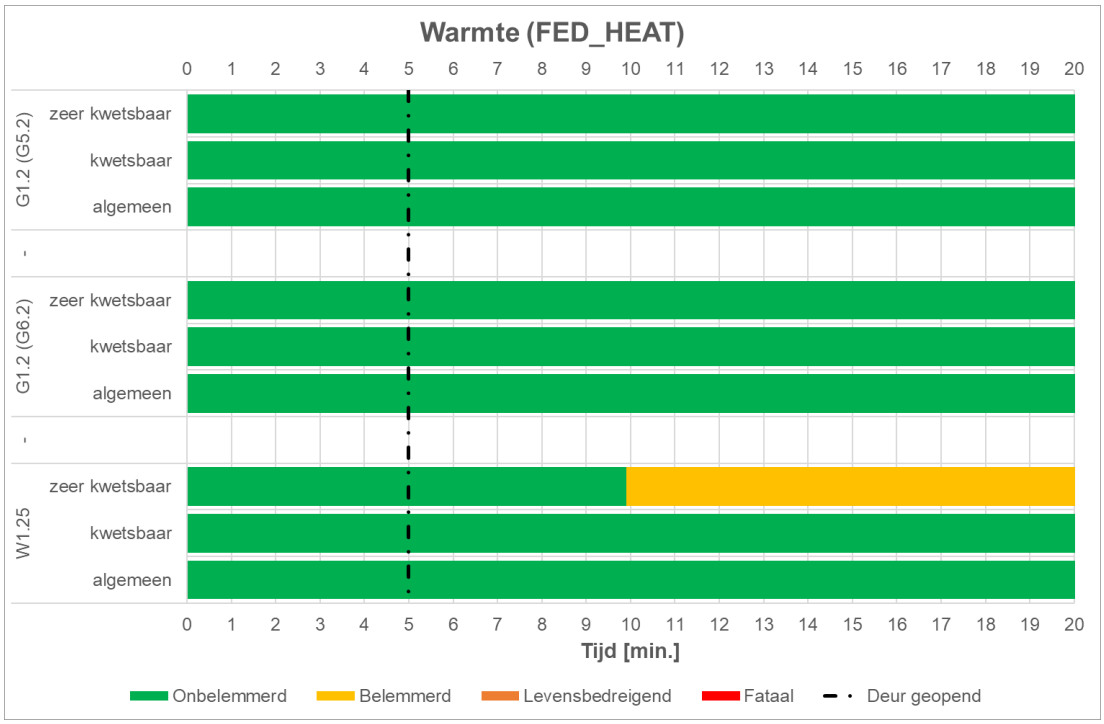
Heat

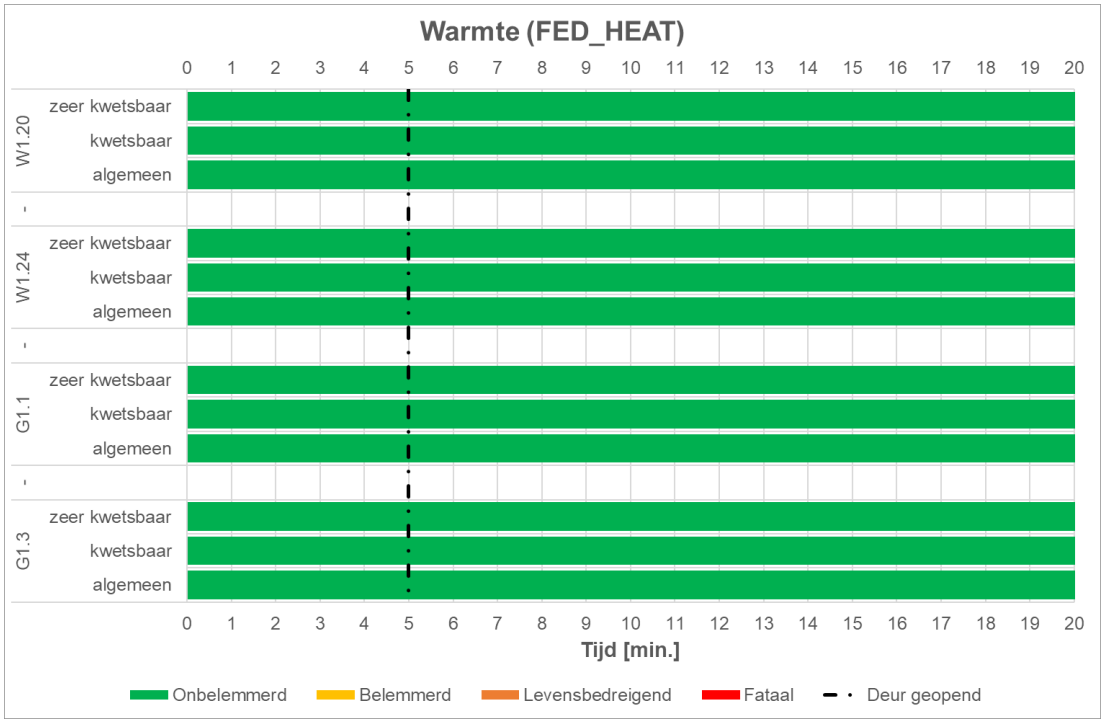

Warmte (FED_HEAT)
FED [-]
0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
Tijd [s]
'240619_1_TK1.1.4
'240619_1_TK1.1.6
'240619_1_TK1.4.4
'240619_1_TK1.4.6
'240619_1_TK1.5.4
'240619_1_TK1.5.6
'240619_1_TK1.6.4
'240619_1_TK1.6.6
'240619_1_TK1.7.6
'240619_1_TK1.8.6
'240619_1_TK1.2.4
'240619_1_TK1.2.6
'240619_1_TK1.3.4
'240619_1_TK1.3.6
'240619_1_TK1.7.4
'240619_1_TK1.8.4
Deur geopend
Grens_0.1
Grens_0.3
Grens_1.0

Heat (FED_HEAT)						
	Group	Threshold [-]	Safe [min.]	Impaired [min.]	Life-threatening [min.]	Fatal [min.
Fire room 1.19 or 1.21 G1	Highly vulnerable	0.1/0.8/1.2	4.4	5.6	5.8	> 5.8
	Vulnerable	0.3/2.4/12.0	4.9	6.3	6.6	> 6.6
	General	1.0/8.0/12.0	5.7	7.1	7.4	> 7.4
Residence 1.20 G2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Residence 1.24 G3	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Residence 1.25 G4	Highly vulnerable	0.1/0.8/1.2	9.9	> 55.0	-	-
	Vulnerable	0.3/2.4/12.0	36.4	> 55.0	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.8/1.2	6.4	7.8	8.5	> 8.5
	Vulnerable	0.3/2.4/12.0	6.9	> 55.0	-	-
	General	1.0/8.0/12.0	8.1	> 55.0	-	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.8/1.2	47.4	> 55.0	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.8/1.2	7.0	17.2	> 55.0	-

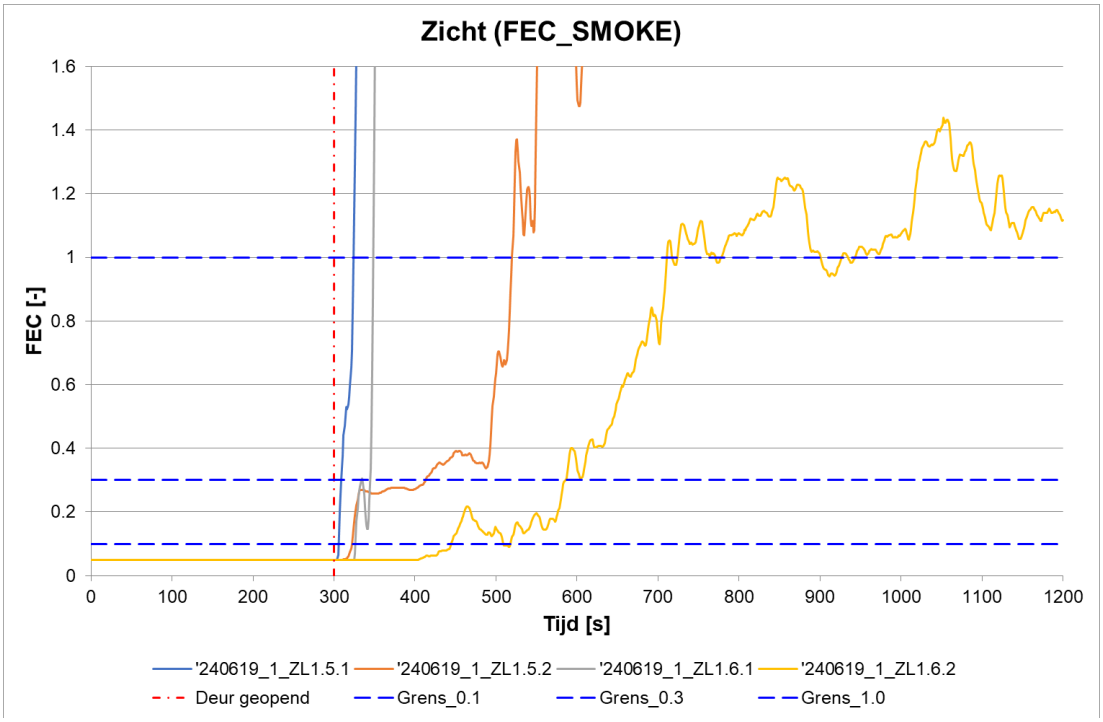
	Vulnerable	0.3/2.4/12.0	8.0	> 55.0	-	-
	General	1.0/8.0/12.0	45.2	> 55.0	-	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-




Warmte (FED_HEAT)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend

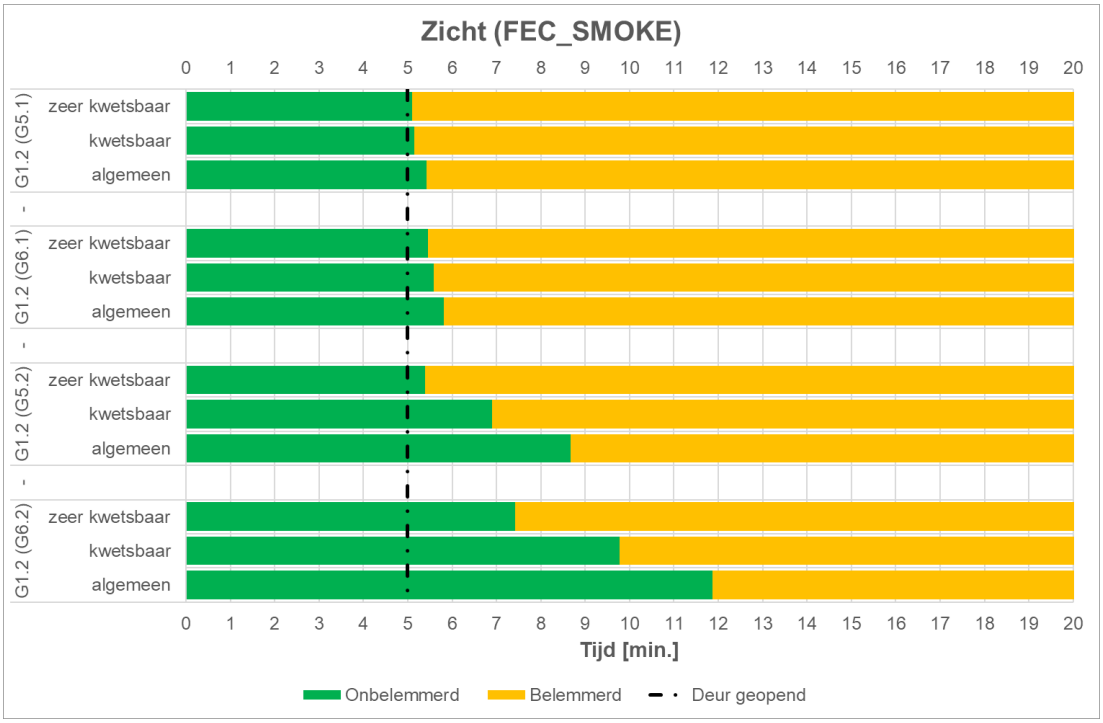

Warmte (FED_HEAT)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend

Visibility

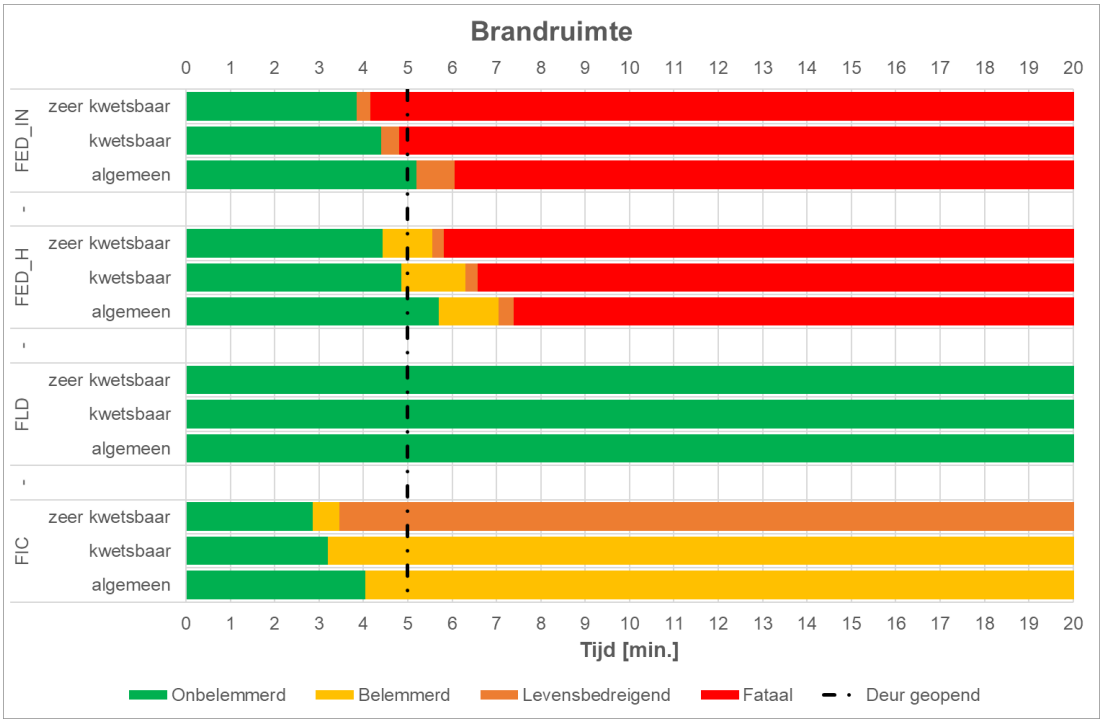


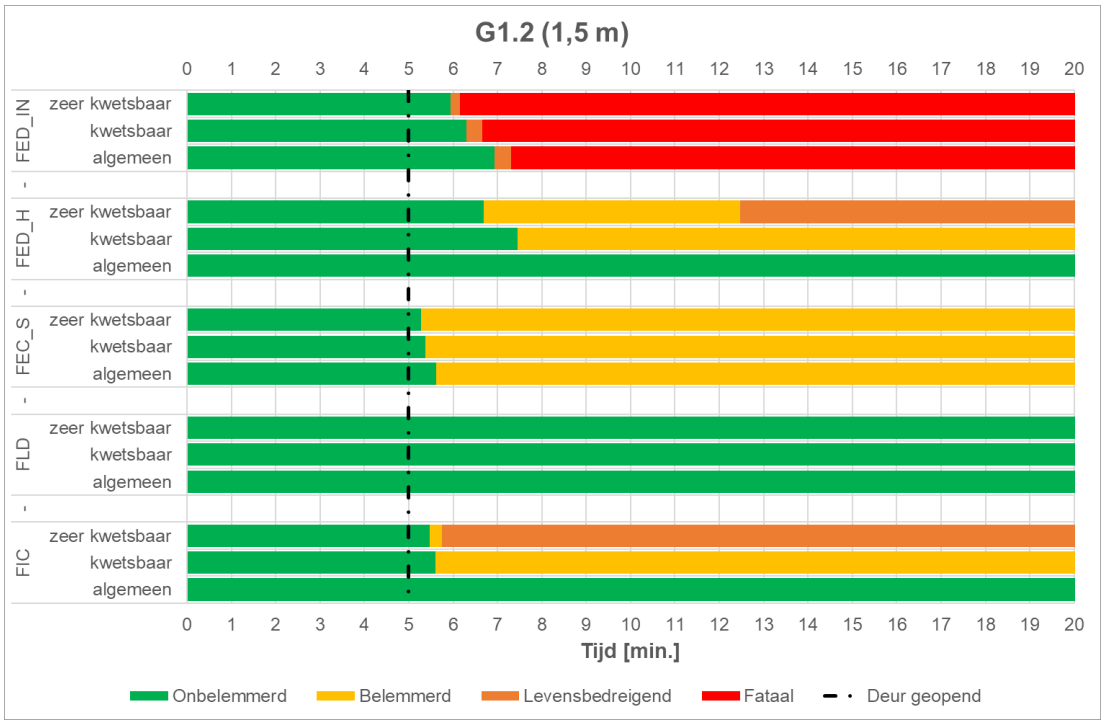
Visibility (FEC_SMOKE)				
	Group	Threshold [-]	Safe [min.]	Impaired [min.]
Corridor 1.2 G5.1	Highly vulnerable	0.1	5.1	> 5.1
	Vulnerable	0.3	5.2	> 5.2
	General	1.0	5.4	> 5.4
Corridor 1.2 G5.2	Highly vulnerable	0.1	5.4	> 5.4
	Vulnerable	0.3	6.9	> 6.9
	General	1.0	8.7	> 8.7
Corridor 1.2 G6.1	Highly vulnerable	0.1	5.5	> 5.5
	Vulnerable	0.3	5.6	> 5.6
	General	1.0	5.8	> 5.8

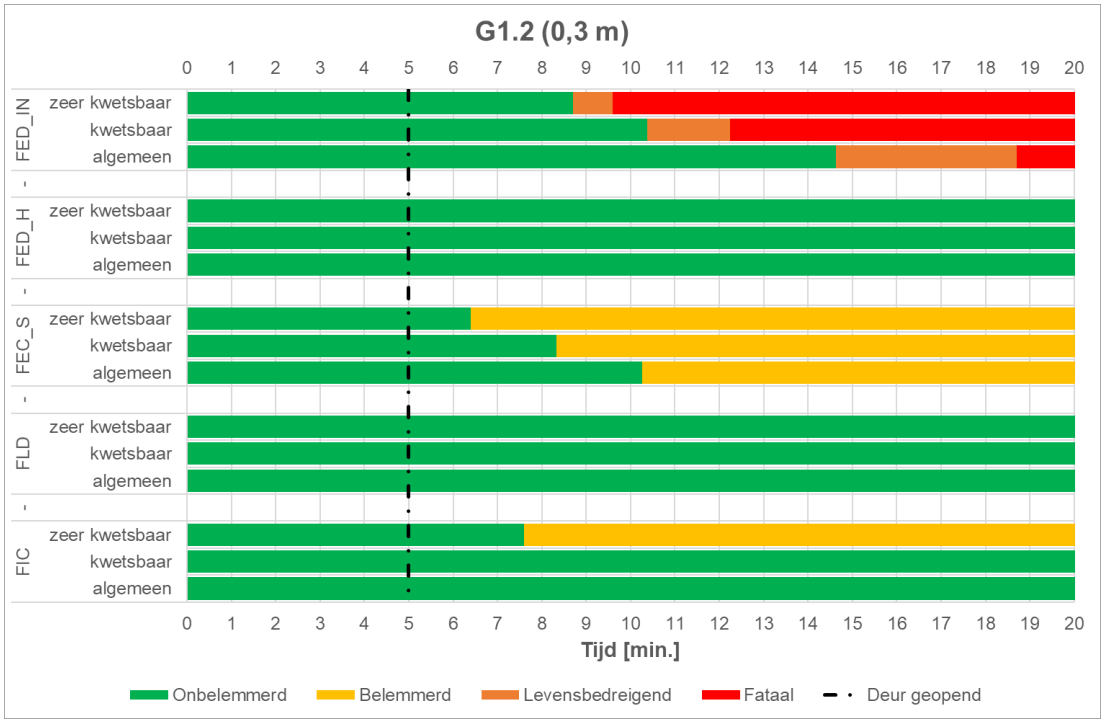
Corridor 1.2 G6.2	Highly vulnerable	0.1	7.4	> 7.4
	Vulnerable	0.3	9.8	> 9.8
	General	1.0	11.9	> 11.9



Overview

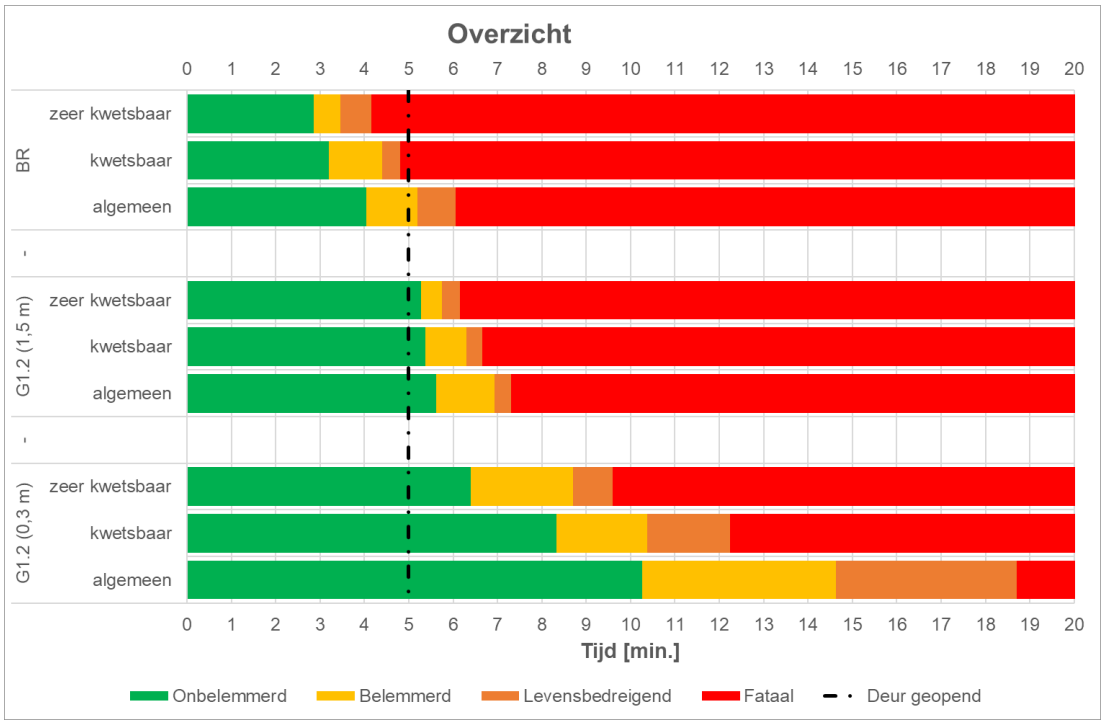


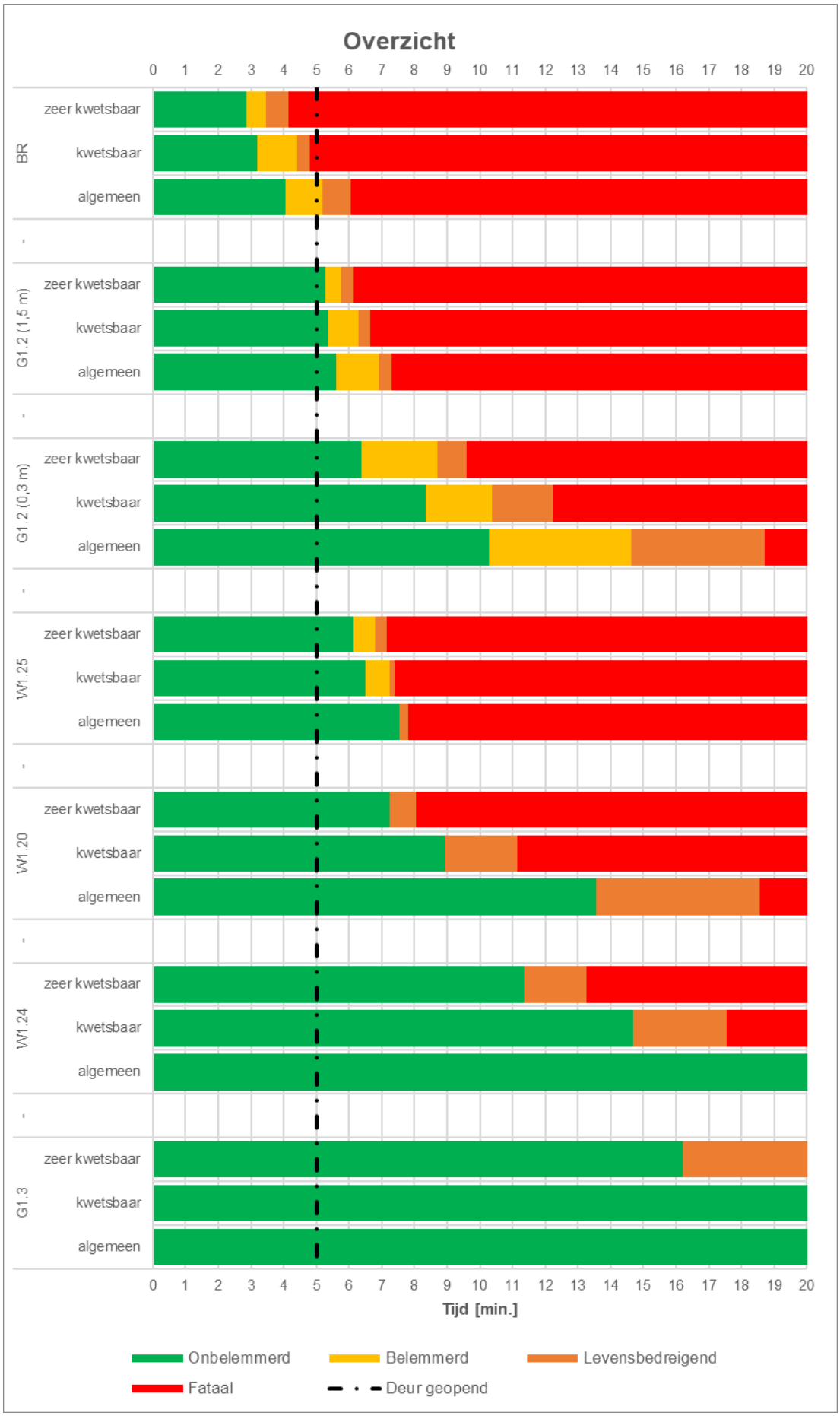

G1.2 (1,5 m)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
FED_IN
FED_H
FEC_S
FLD
FIC
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend


G1.2 (0,3 m)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
FED_IN
FED_H
FEC_S
FLD
FIC
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend

	Overview	Escape		Survivability	
	Group	Safe [min.]	Impaired [min.]	Life-threatening [min.]	Fatal [min.]
Fire room 1.21 G1	Highly vulnerable	2.9	3.5	4.2	> 4.2
	Vulnerable	3.2	4.4	4.8	> 4.8
	General	4.1	5.2	6.1	> 6.1
Residence 1.20 G2	Highly vulnerable	7.3	7.3	8.1	> 8.1
	Vulnerable	9.0	9.0	11.2	> 11.2
	General	13.6	13.6	18.6	> 18.6
Residence 1.24 G3	Highly vulnerable	11.4	11.4	13.3	> 13.3
	Vulnerable	14.7	14.7	17.6	> 17.6
	General	20.2	20.2	25.2	> 25.2
Residence 1.25 G4	Highly vulnerable	6.2	6.8	7.2	> 7.2
	Vulnerable	6.5	7.3	7.4	> 7.4
	General	7.6	7.6	7.8	> 7.8
Corridor 1.2 G5.1	Highly vulnerable	5.1	5.6	6.0	> 6.0
	Vulnerable	5.2	6.2	6.5	> 6.5
	General	5.4	6.8	7.2	> 7.2
Corridor 1.2 G5.2	Highly vulnerable	5.4	8.6	9.2	> 9.2
	Vulnerable	6.9	9.7	11.0	> 11.0
	General	8.7	12.6	15.5	> 15.5
Corridor 1.2	Highly vulnerable	5.5	5.9	6.3	> 6.3

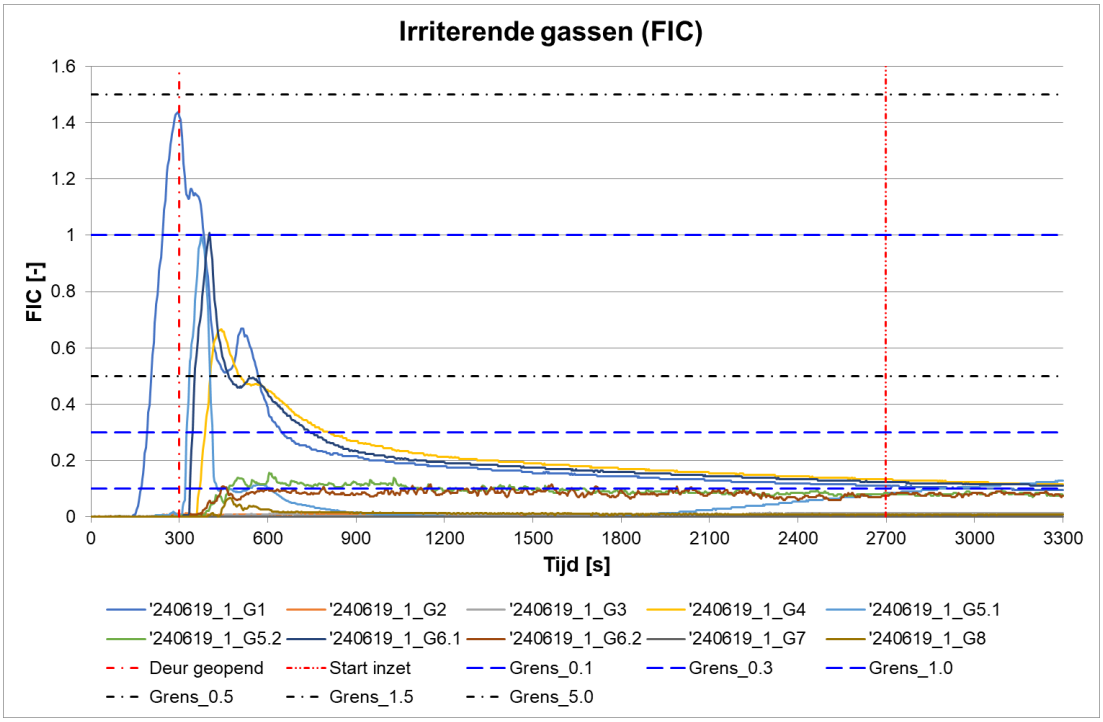
G6.1	Vulnerable	5.6	6.5	6.8	> 6.8
	General	5.8	7.1	7.4	> 7.4
Corridor 1.2 G6.2	Highly vulnerable	7.4	8.9	10.1	> 10.1
	Vulnerable	9.8	11.1	13.6	> 13.6
	General	11.9	16.7	21.9	> 21.9
Corridor 1.1 G7	Highly vulnerable	-	-	-	-
	Vulnerable	-	-	-	-
	General	-	-	-	-
Corridor 1.3 G8	Highly vulnerable	16.2	16.2	25.0	> 25.0
	Vulnerable	33.9	33.9	54.5	> 54.5
	General	> 55.0	-	-	-

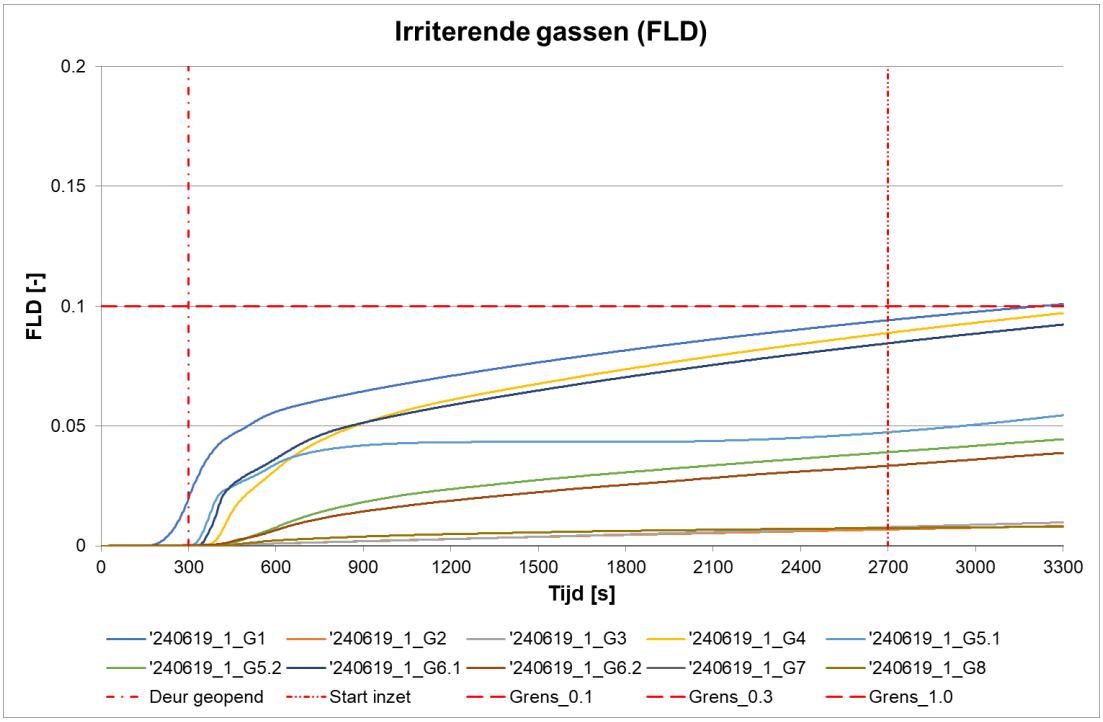



Overzicht
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (1,5 m)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (0,3 m)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend

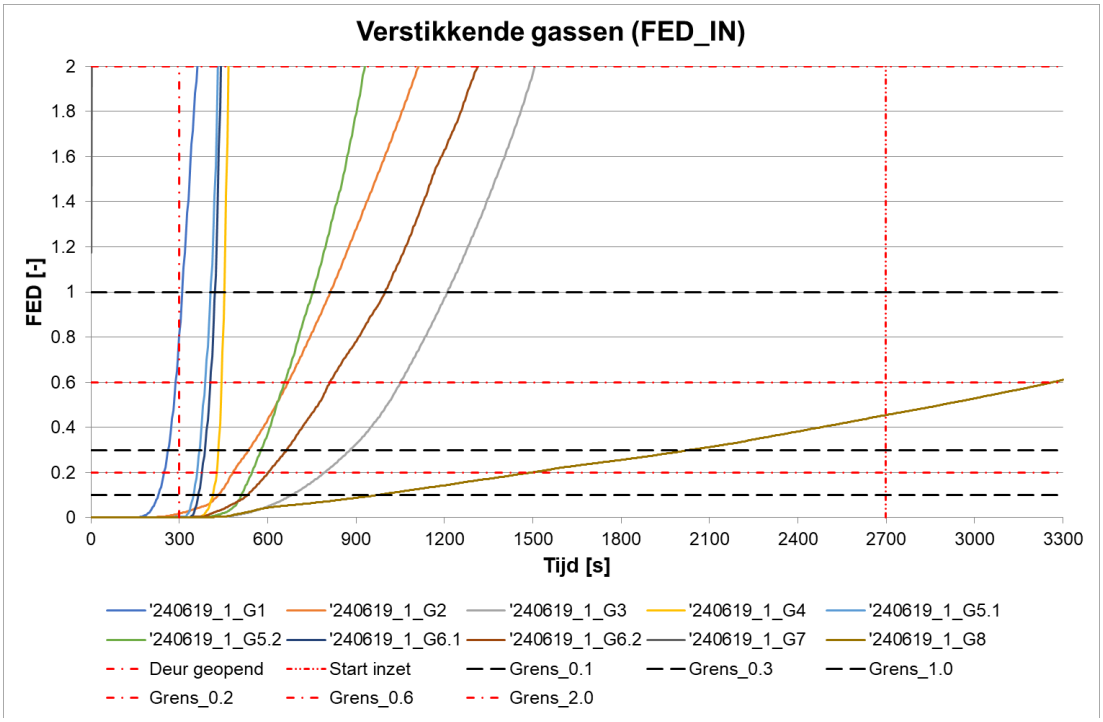
C. Deployment phase (20 - 55 minutes)

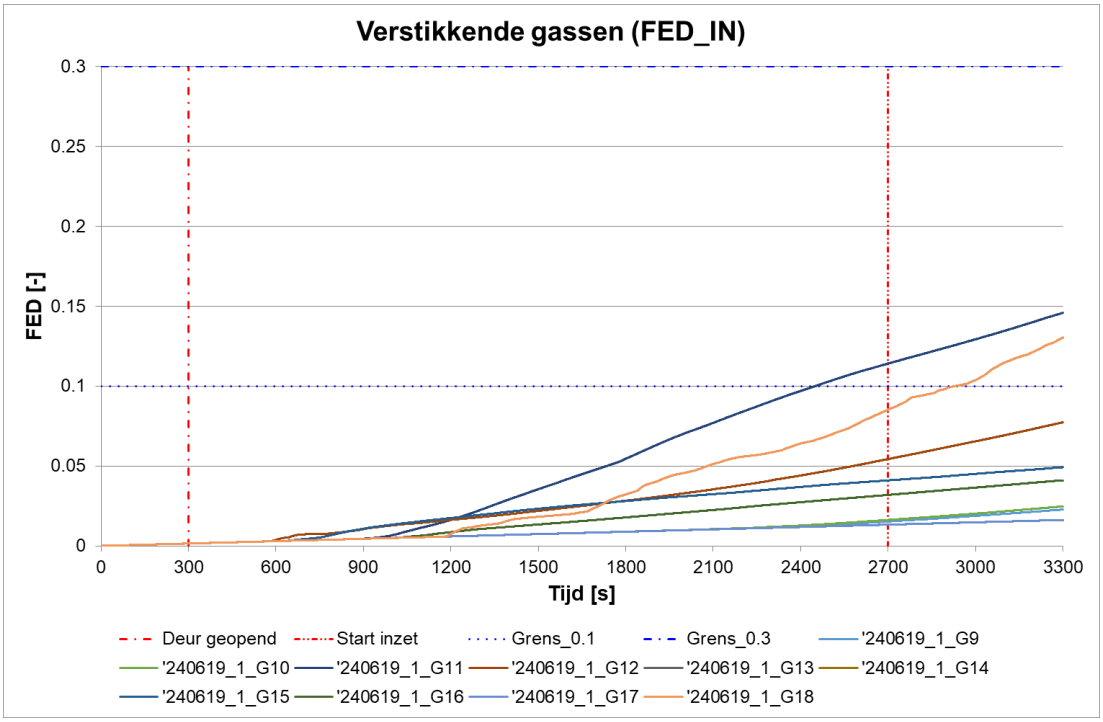
Irritant gases



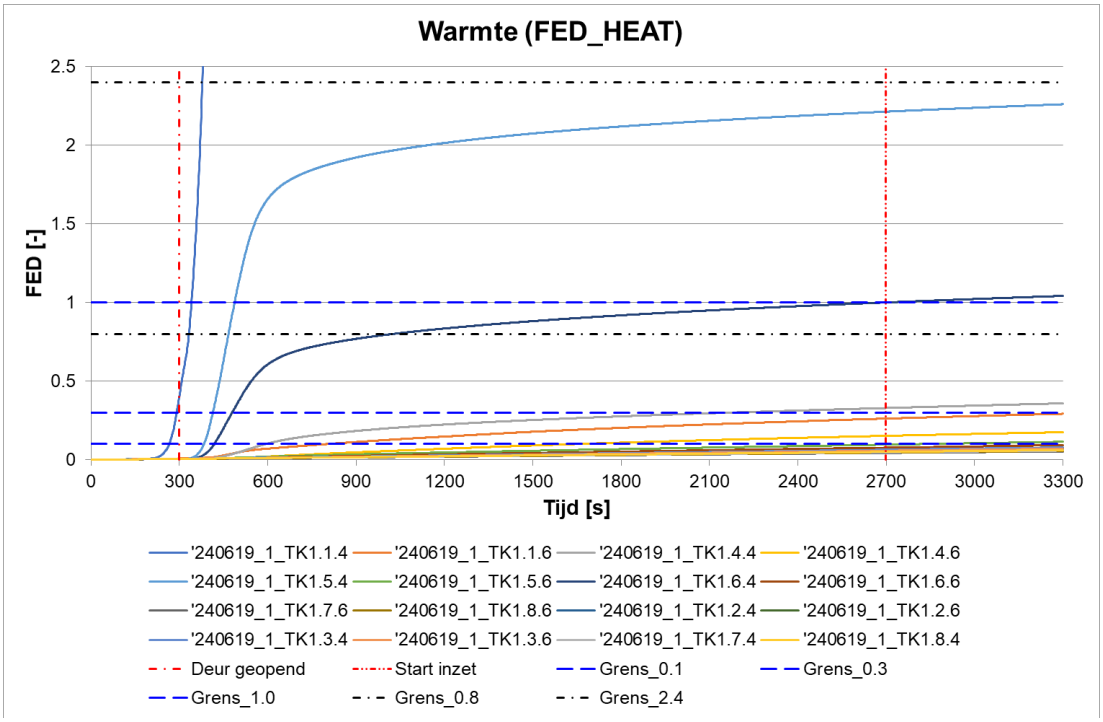


Asphyxiant gases

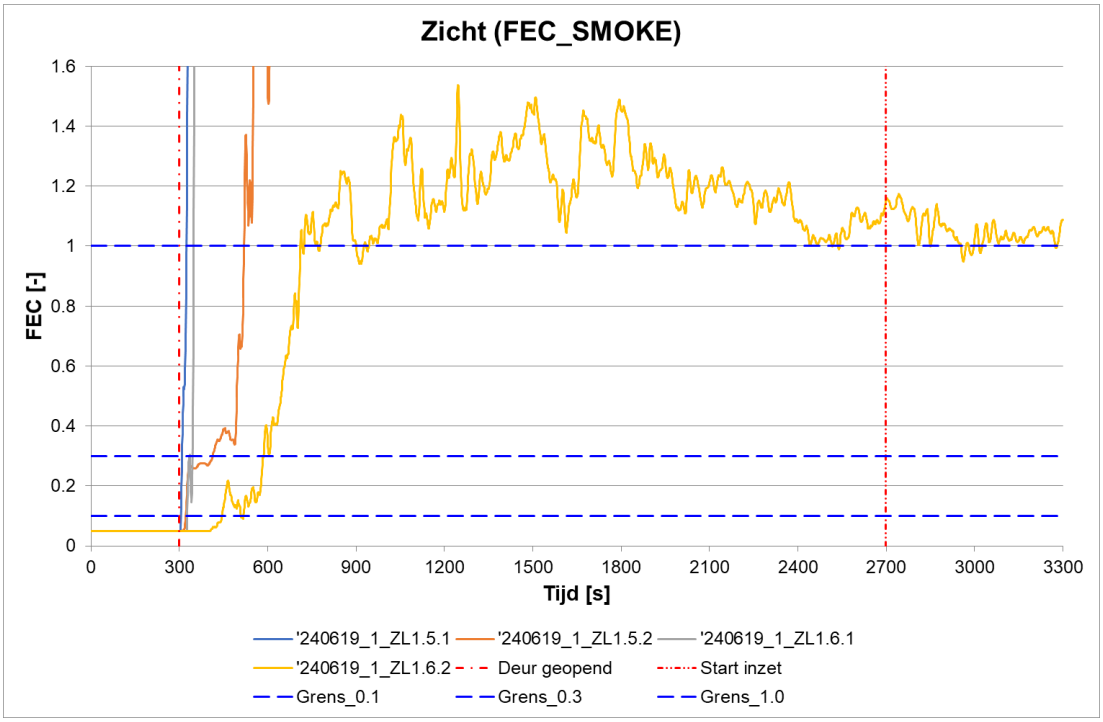




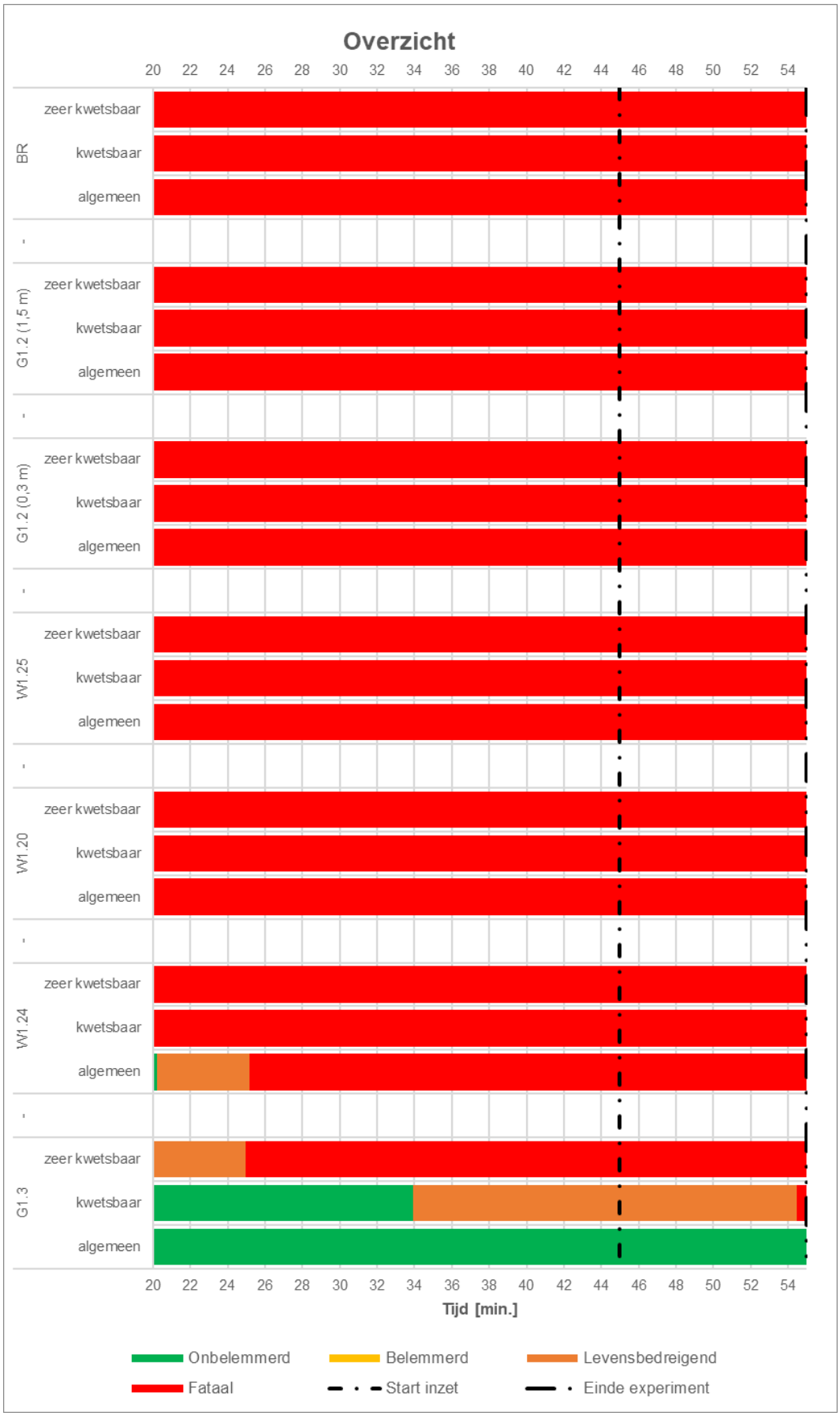
Heat



Visibility



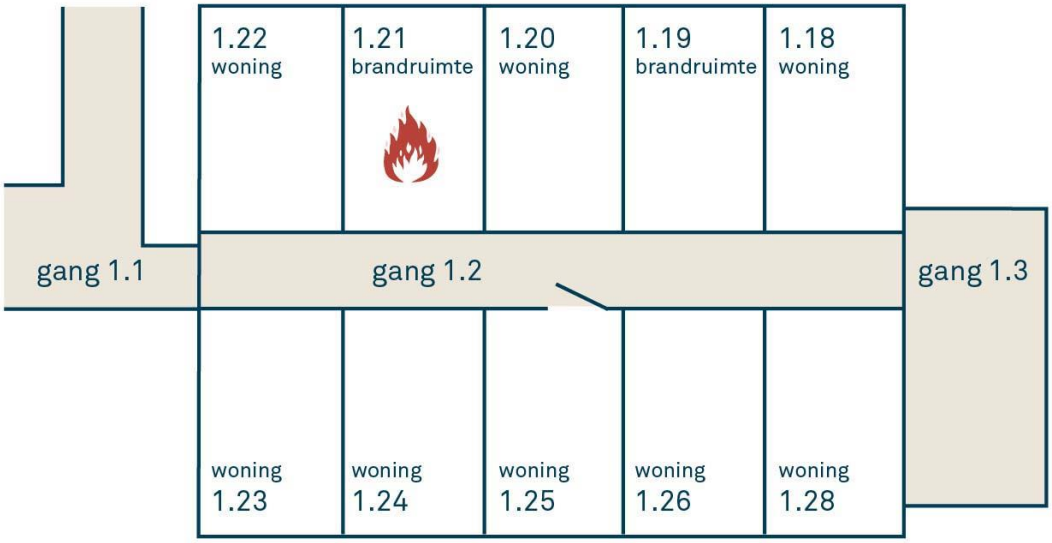
Overview


Overzicht
20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (1,5 m)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (0,3 m)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Start inzet
Einde experiment

Test 2 (variant 1: door closed) 25-06-19

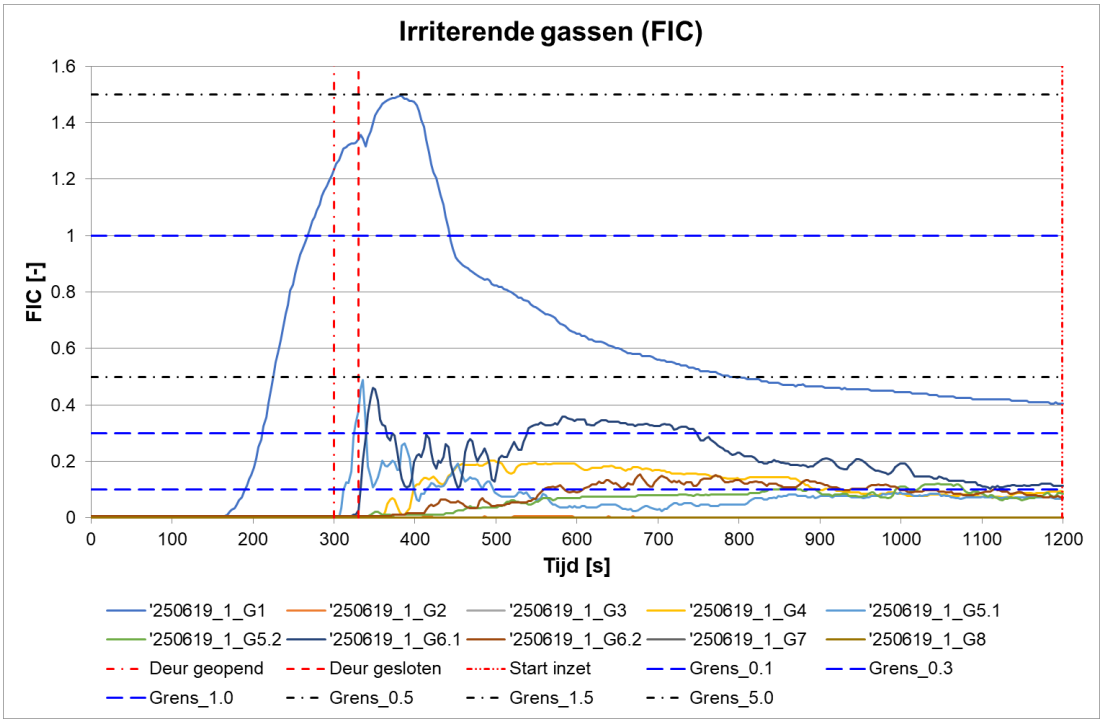
A. Description of the test

Test number	2
Date	25/06/2019
Morning / afternoon	Morning
Fire room	1.21
Door to the fire room open / closed	Closed
Fire service deployment	Offensive interior attack
Extra measures	None
Specific aspects	After the test, the deployment crew reported that the windows of residences 1.22 and 1.23 were open. The double doors between corridors 1.4 and 1.3 were left open because of the HP hose of the deployment crew. Third floor, corridor 3.2, measuring point G16: no readings. No temperature readings



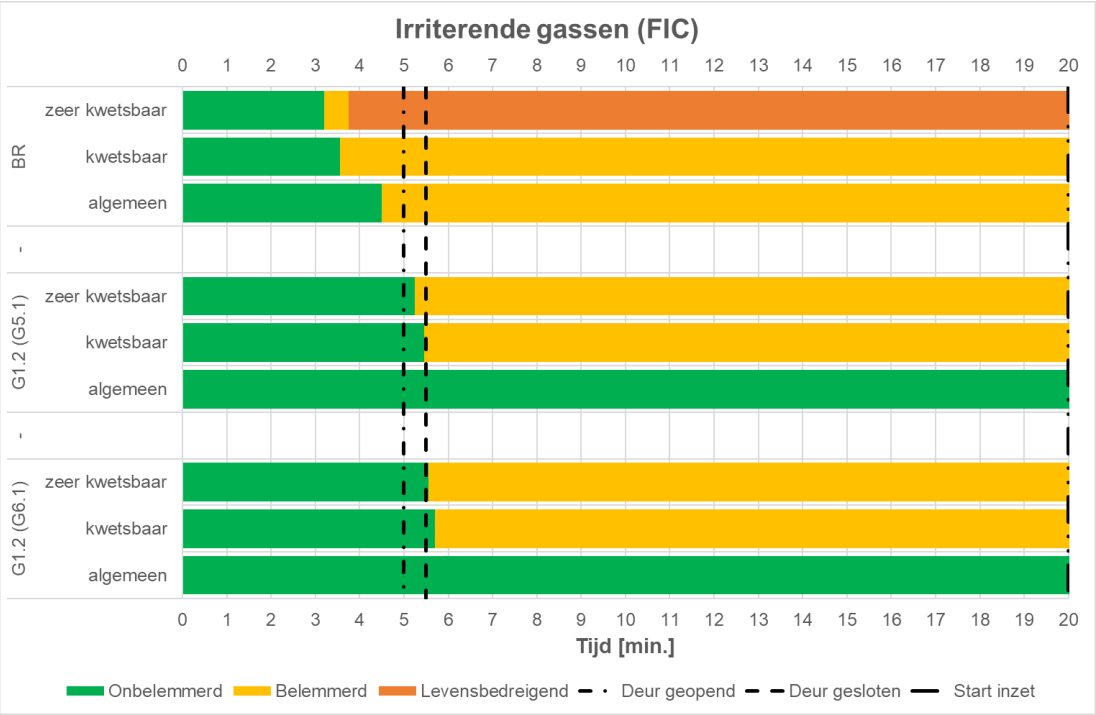
B. Escape phase (0 - 20 minutes)

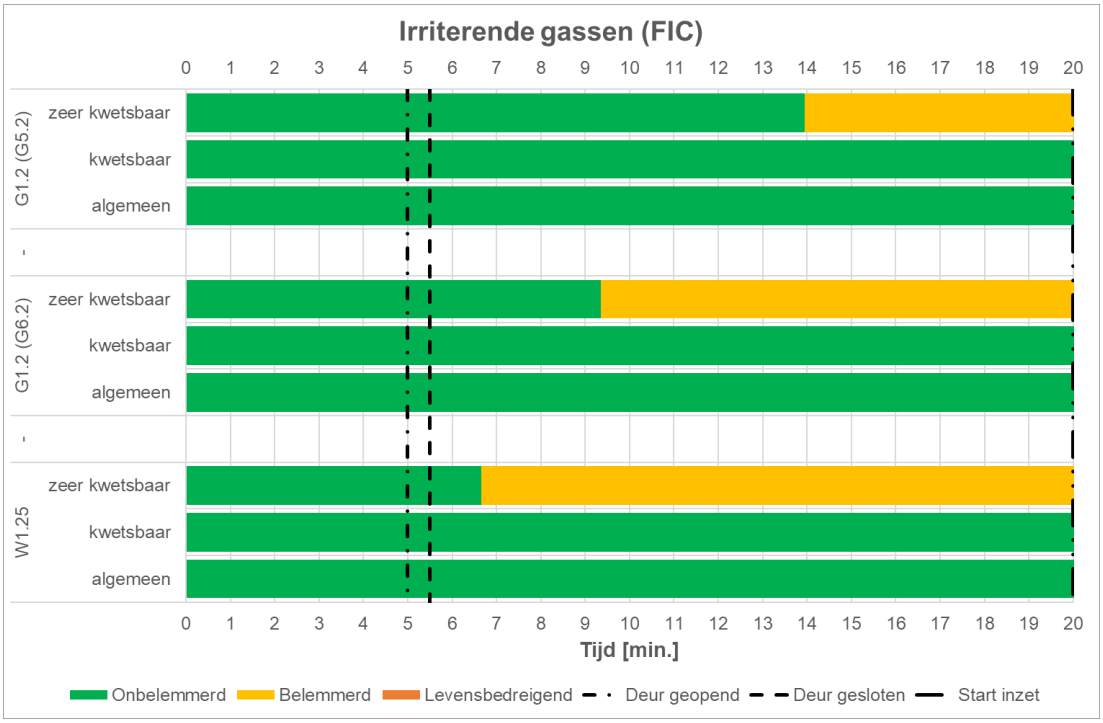
Irritant gases

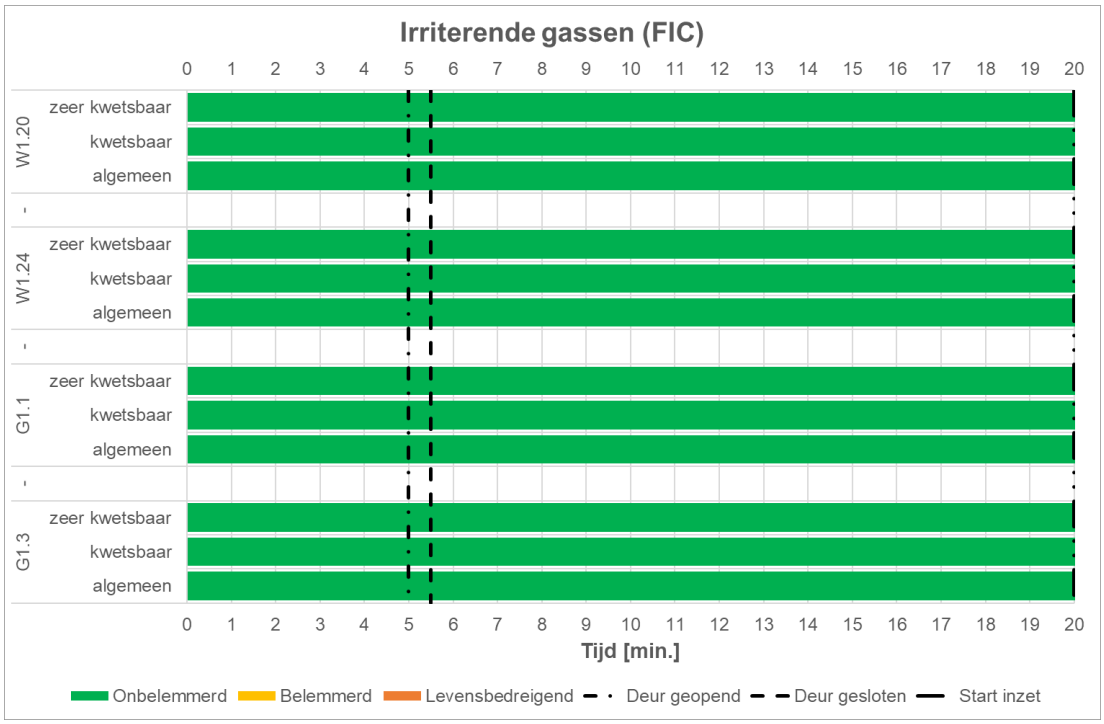


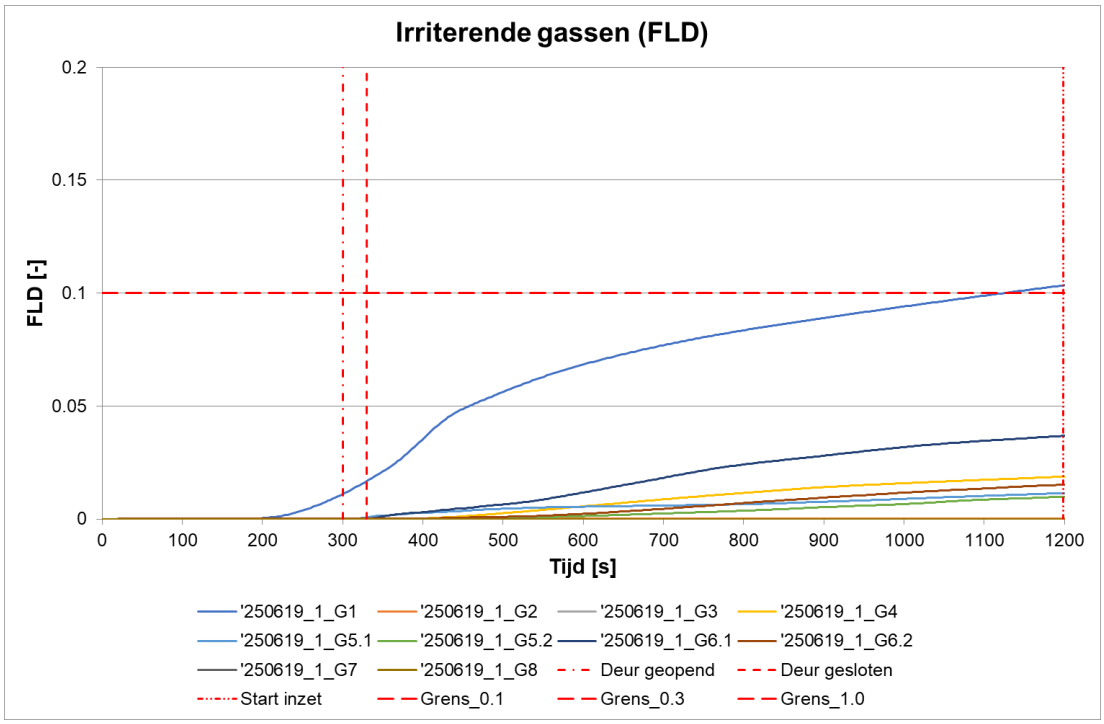
	Irritant gases (FIC)				
	Group	Threshold [-]	Safe [min.]	Impaired [min.]	Life-threatening [min.]
Fire room 1.21 G1	Highly vulnerable	0.1/0.5	3.2	3.8	> 3.8
	Vulnerable	0.3/1.5	3.6	> 55.0	-
	General	1.0/5.0	4.5	> 55.0	-
Residence 1.20 G2	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Residence 1.24 G3	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-

Residence 1.25 G4	Highly vulnerable	0.1/0.5	6.7	> 55.0	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.5	5.3	> 55.0	-
	Vulnerable	0.3/1.5	5.5	> 55.0	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.5	14.0	> 55.0	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.5	5.6	> 55.0	-
	Vulnerable	0.3/1.5	5.7	> 55.0	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.5	9.4	> 55.0	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-


Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G5.1)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.1)
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Deur gesloten
Start inzet

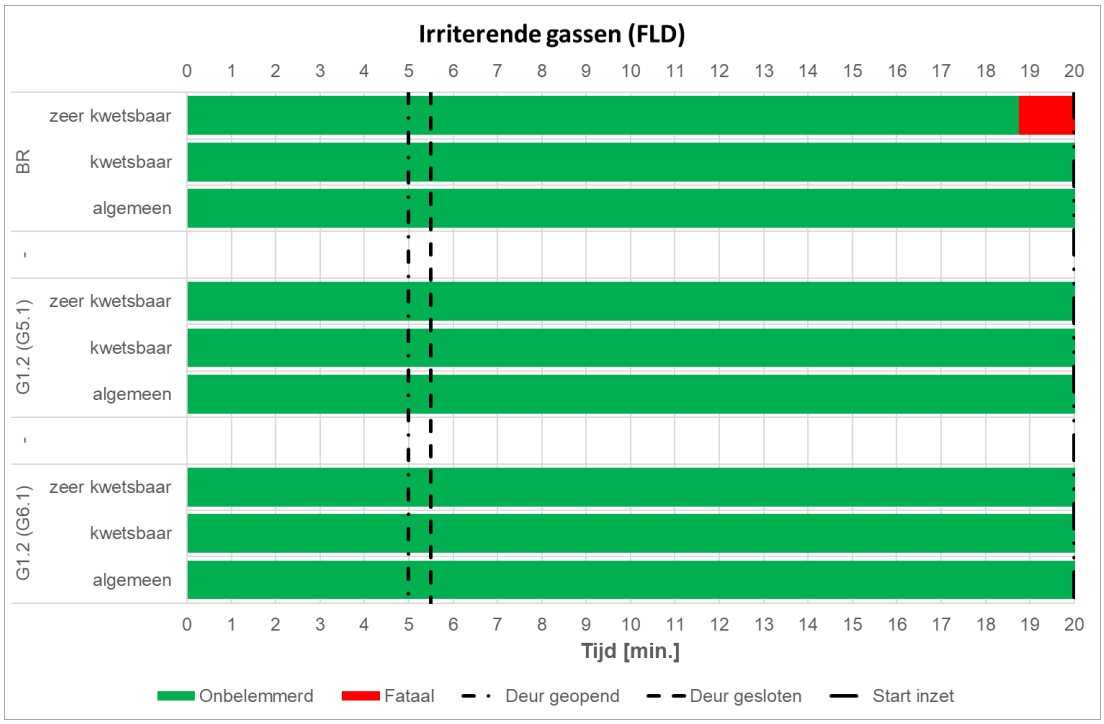

Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Deur gesloten
Start inzet


Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Deur gesloten
Start inzet

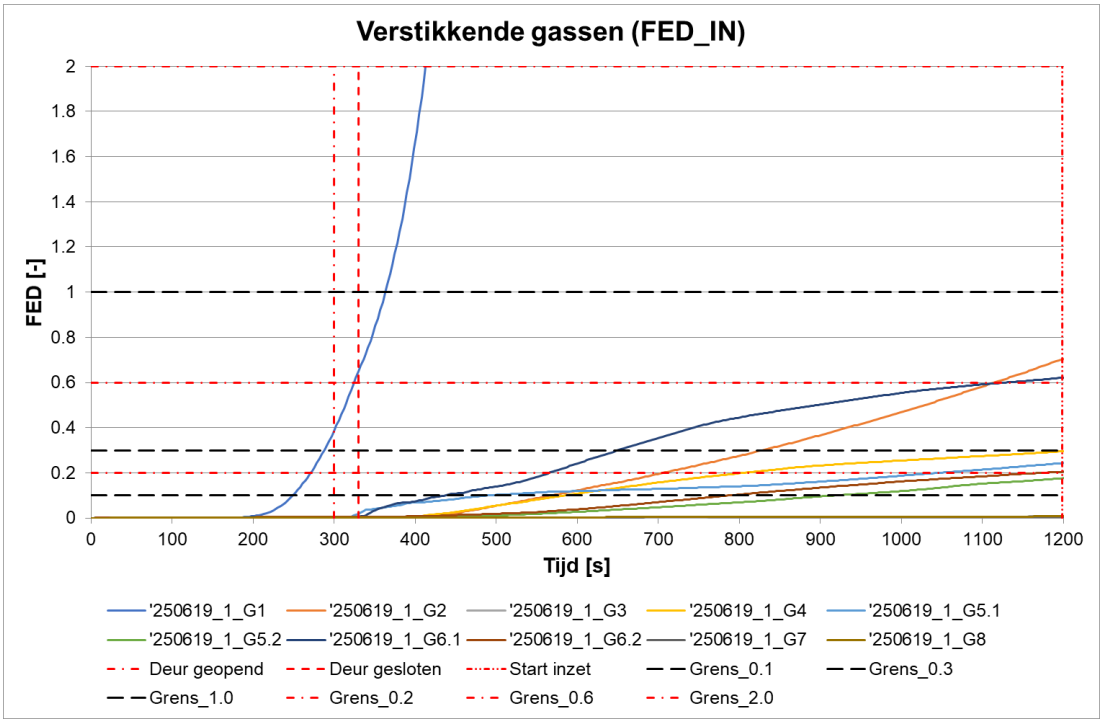

Irriterende gassen (FLD)
0.2
0.15
0.1
0.05
0
FLD [-]
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
Tijd [s]
'250619_1_G1
'250619_1_G2
'250619_1_G3
'250619_1_G4
'250619_1_G5.1
'250619_1_G5.2
'250619_1_G6.1
'250619_1_G6.2
'250619_1_G7
'250619_1_G8
Deur geopend
Deur gesloten
Start inzet
Grens_0.1
Grens_0.3
Grens_1.0

Irritant gases (FLD)				
	Group	Threshold [-]	Safe [min.]	Impaired [min.]
Fire room 1.21 G1	Highly vulnerable	0.1	18.8	> 18.8
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.20 G2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.24 G3	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.25 G4	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G5.1	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G5.2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G6.1	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G6.2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-

	General	1.0	> 55.0	-
Corridor 1.1 G7	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.3 G8	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-

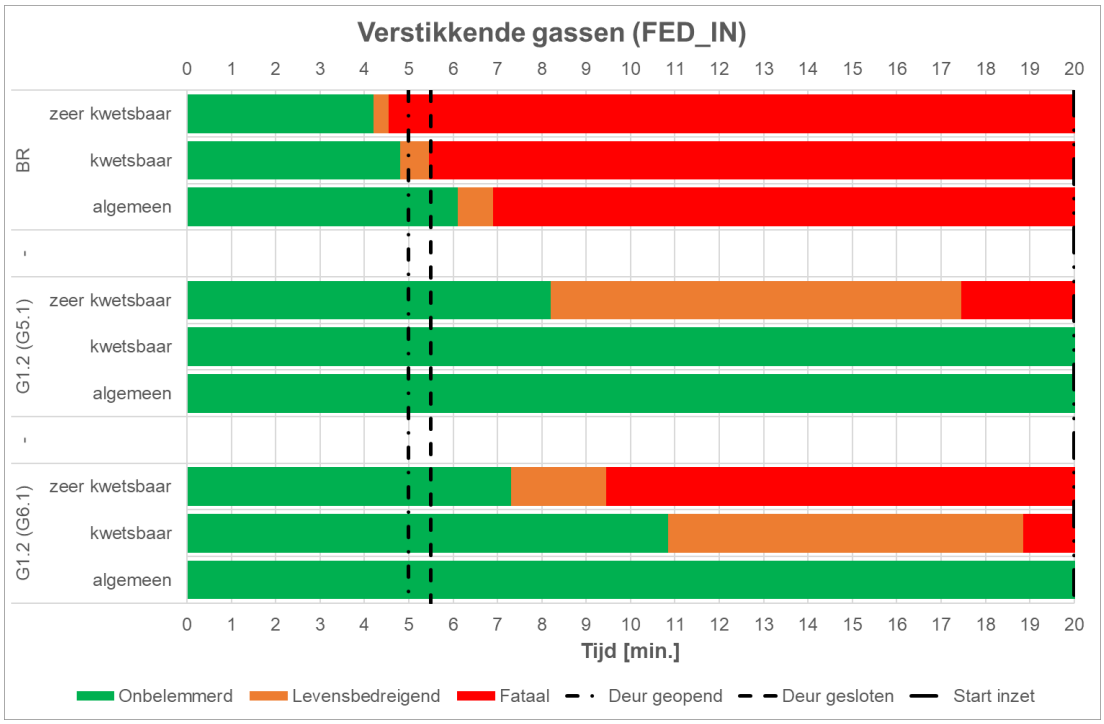


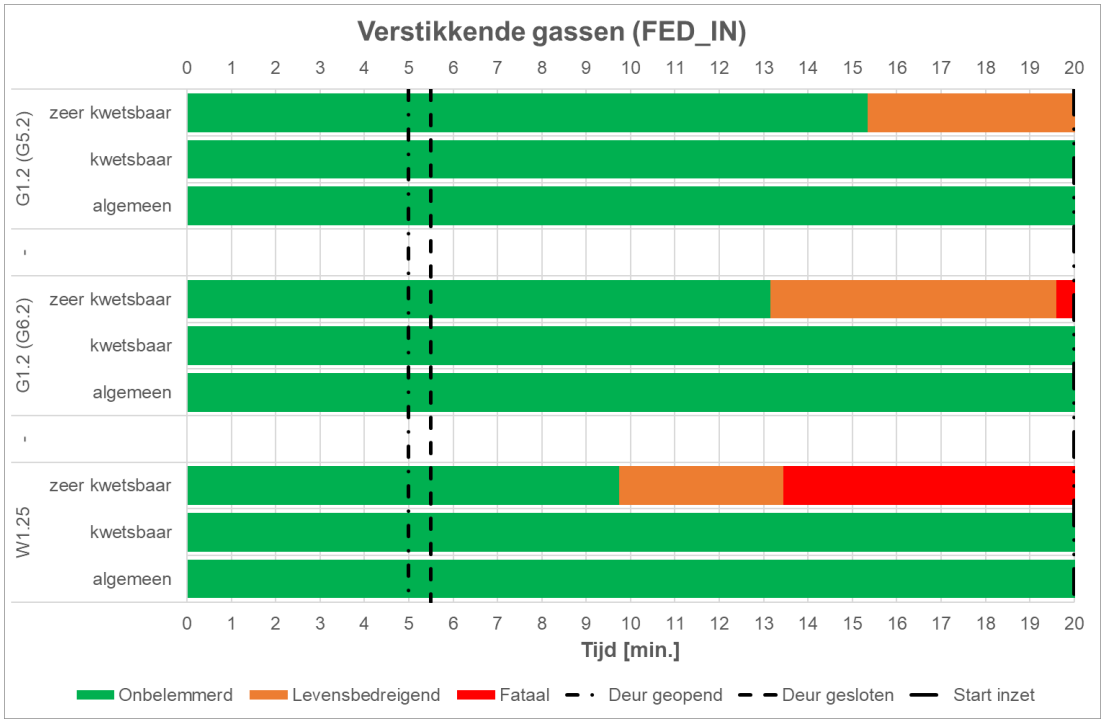
Asphyxiant gases

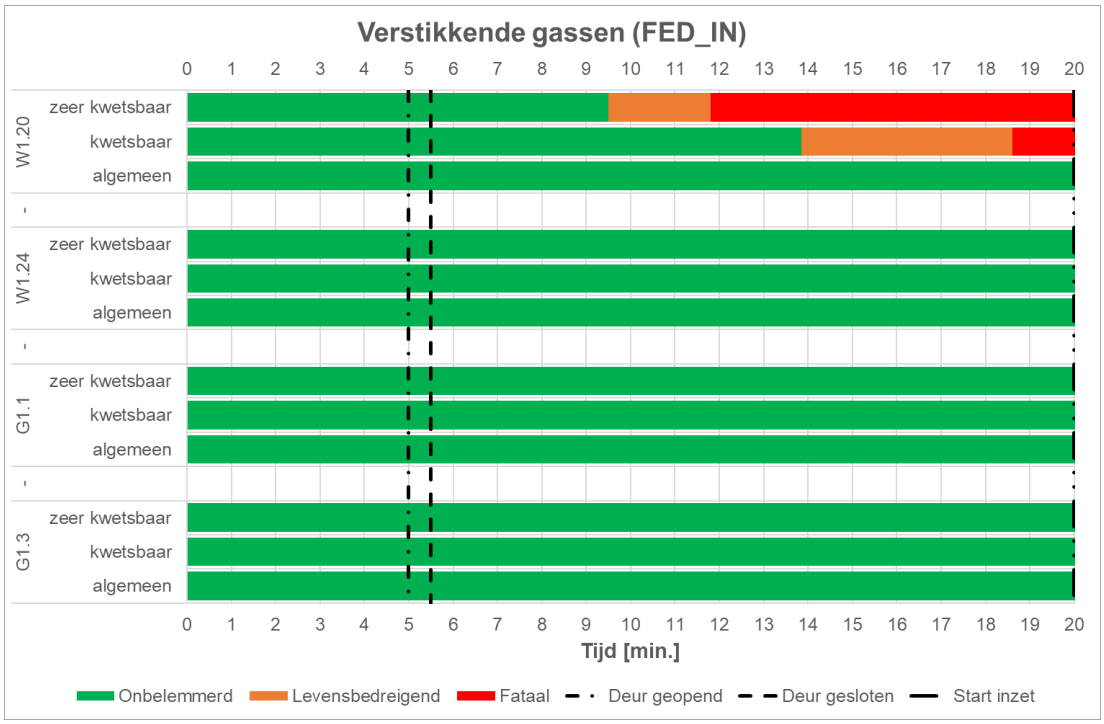


		Asphyxiant gases (FED_IN)			
	Group	Threshold [-]	Safe [min.]	Life-threatening [min.]	Fatal [min.]
Fire room 1.21 G1	Highly vulnerable	0.1/0.2	4.2	4.6	> 4.6
	Vulnerable	0.3/0.6	4.8	5.5	> 5.5
	General	1.0/2.0	6.1	6.9	> 6.9
Residence 1.20 G2	Highly vulnerable	0.1/0.2	9.5	11.8	> 11.8
	Vulnerable	0.3/0.6	13.9	18.6	> 18.6
	General	1.0/2.0	23.6	36.8	> 36.8
Residence 1.24 G3	Highly vulnerable	0.1/0.2	28.6	31.0	> 31.0
	Vulnerable	0.3/0.6	33.0	38.7	> 38.7
	General	1.0/2.0	> 55.0	-	-
Residence 1.25	Highly vulnerable	0.1/0.2	9.8	13.5	> 13.5

G4	Vulnerable	0.3/0.6	20.4	27.7	> 27.7
	General	1.0/2.0	32.0	40.7	> 40.7
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.2	8.2	17.5	> 17.5
	Vulnerable	0.3/0.6	22.3	24.2	> 24.2
	General	1.0/2.0	27.6	> 55.0	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.2	15.4	21.3	> 21.3
	Vulnerable	0.3/0.6	25.1	30.0	> 30.0
	General	1.0/2.0	37.4	> 55.0	-
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.2	7.3	9.5	> 9.5
	Vulnerable	0.3/0.6	10.9	18.9	> 18.9
	General	1.0/2.0	25.1	> 55.0	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.2	13.2	19.6	> 19.6
	Vulnerable	0.3/0.6	25.1	> 55.0	-
	General	1.0/2.0	> 55.0	-	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.2	39.4	50.7	> 50.7
	Vulnerable	0.3/0.6	> 55.0	-	-
	General	1.0/2.0	> 55.0	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.2	28.0	35.0	> 35.0
	Vulnerable	0.3/0.6	42.3	> 55.0	-
	General	1.0/2.0	> 55.0	-	-


Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G5.1)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.1)
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

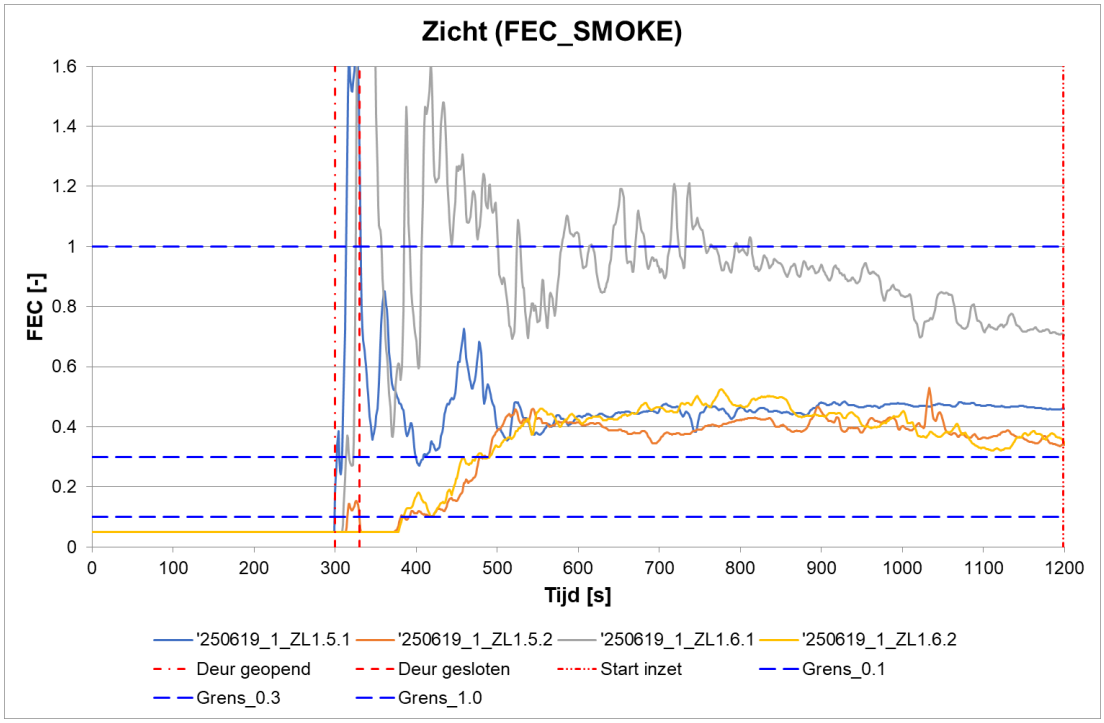

Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet



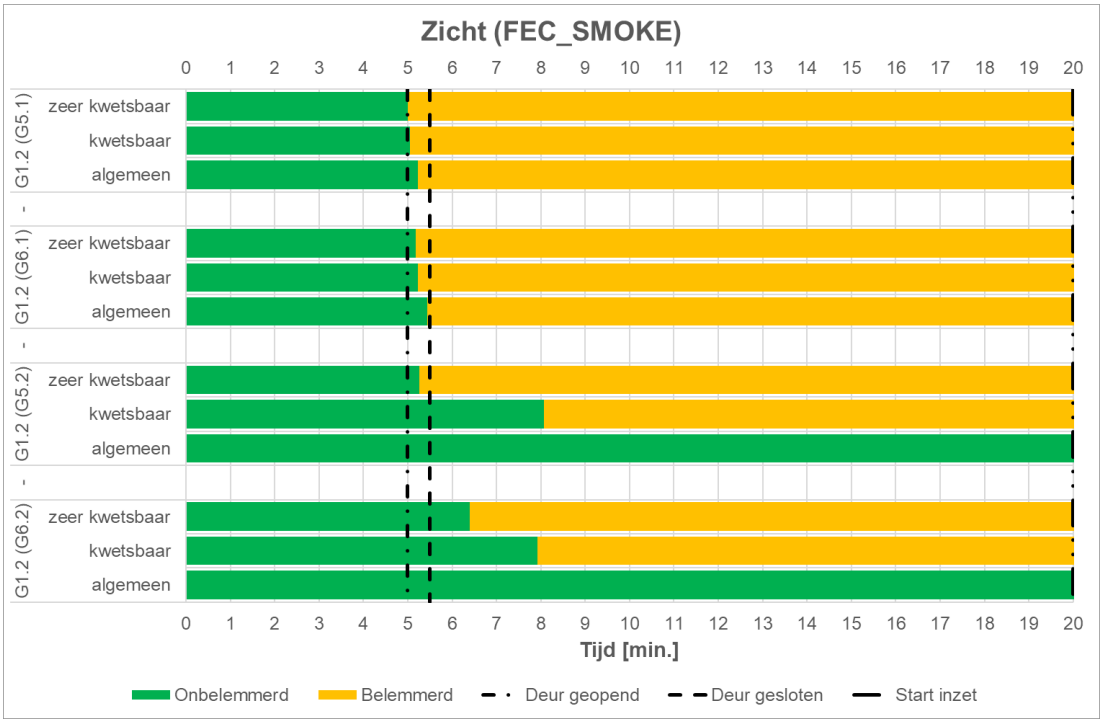
Heat

No reliable measurement.

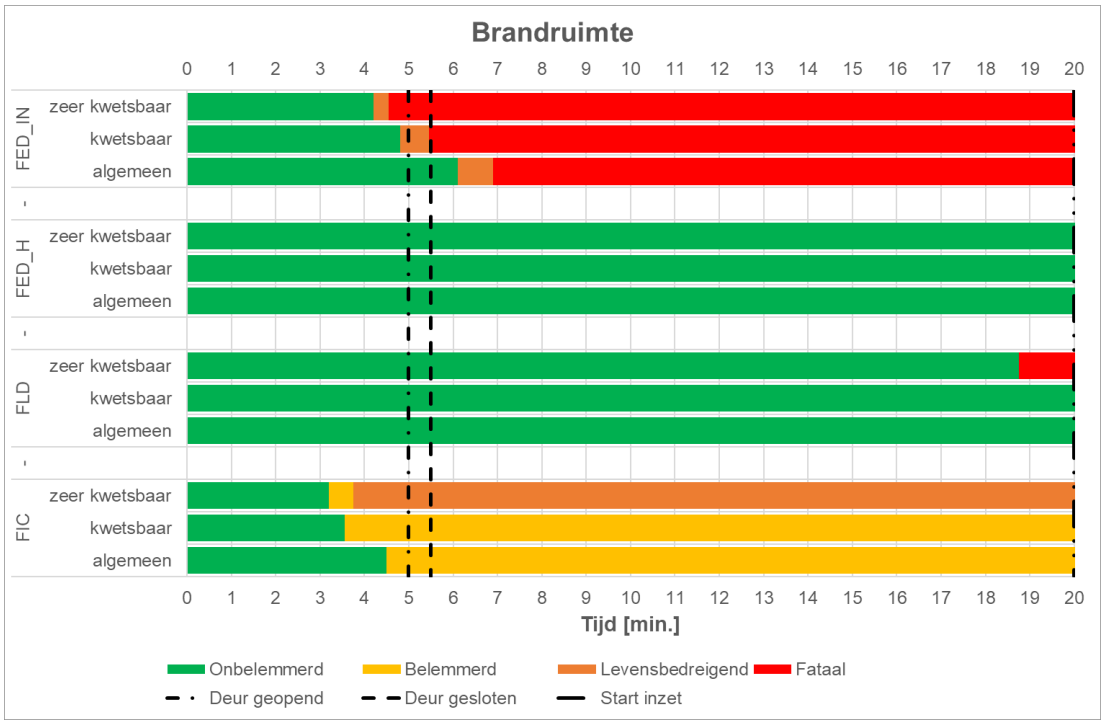
Visibility

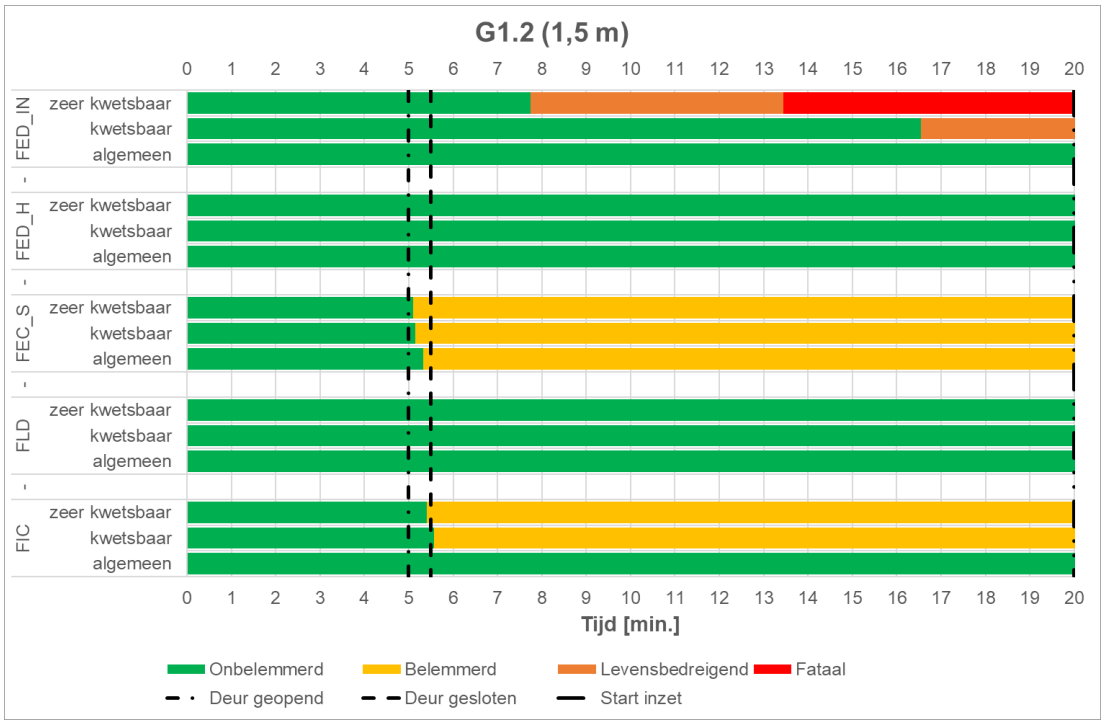


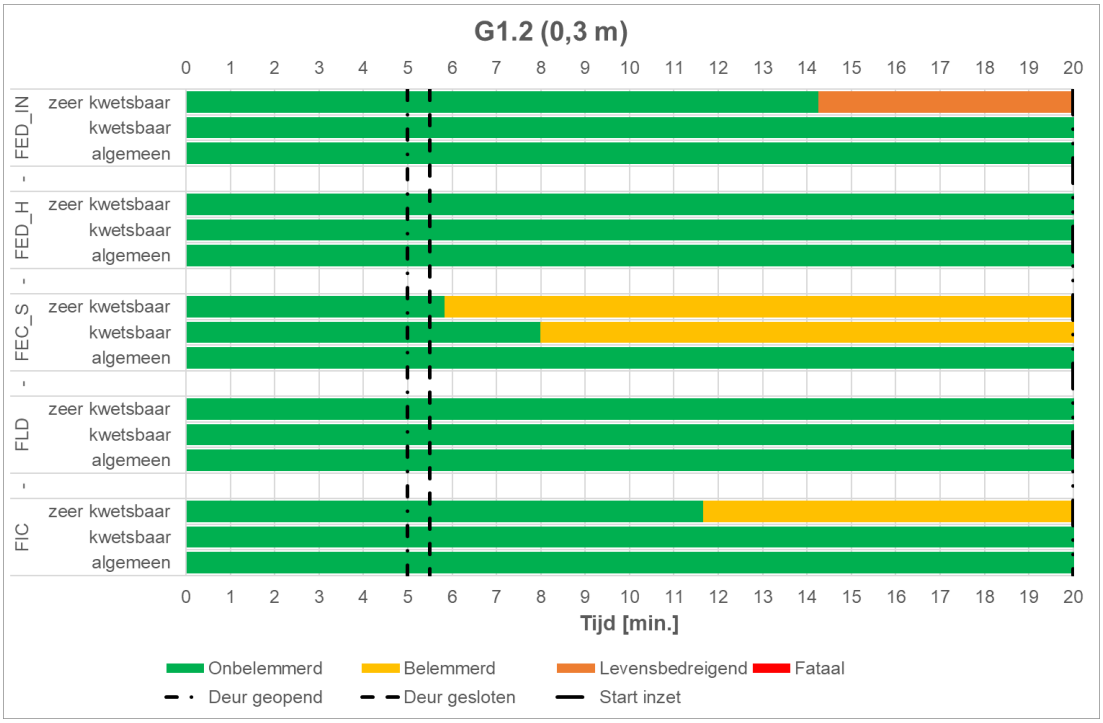
	Visibility (FEC_SMOKE)			
	Group	Threshold [-]	Safe [min.]	Impaired [min.]
Corridor 1.2 G5.1	Highly vulnerable	0.1	5.0	> 5.0
	Vulnerable	0.3	5.1	> 5.1
	General	1.0	5.2	> 5.2
Corridor 1.2 G5.2	Highly vulnerable	0.1	5.3	> 5.3
	Vulnerable	0.3	8.1	> 8.1
	General	1.0	24.3	> 24.3
Corridor 1.2 G6.1	Highly vulnerable	0.1	5.2	> 5.2
	Vulnerable	0.3	5.2	> 5.2
	General	1.0	5.4	> 5.4
Corridor 1.2 G6.2	Highly vulnerable	0.1	6.4	> 6.4
	Vulnerable	0.3	7.9	> 7.9
	General	1.0	40.8	> 40.8



Overview

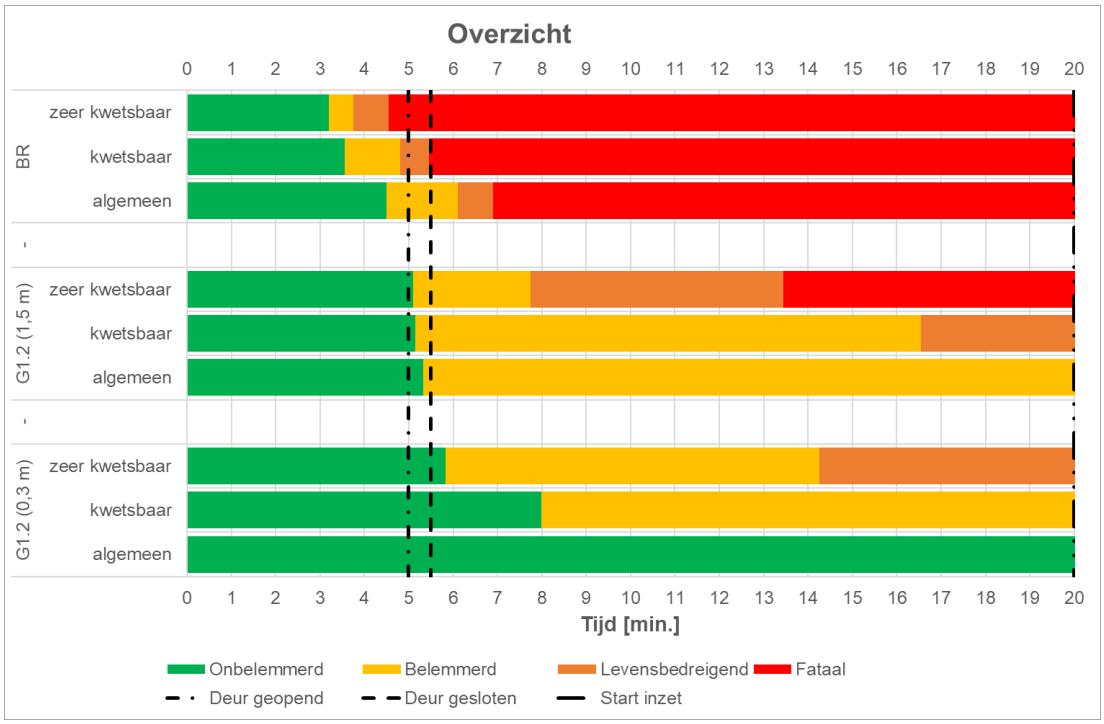

Brandruimte
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
FED_IN
zeer kwetsbaar
kwetsbaar
algemeen
-
FED_H
zeer kwetsbaar
kwetsbaar
algemeen
-
FLD
zeer kwetsbaar
kwetsbaar
algemeen
-
FIC
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

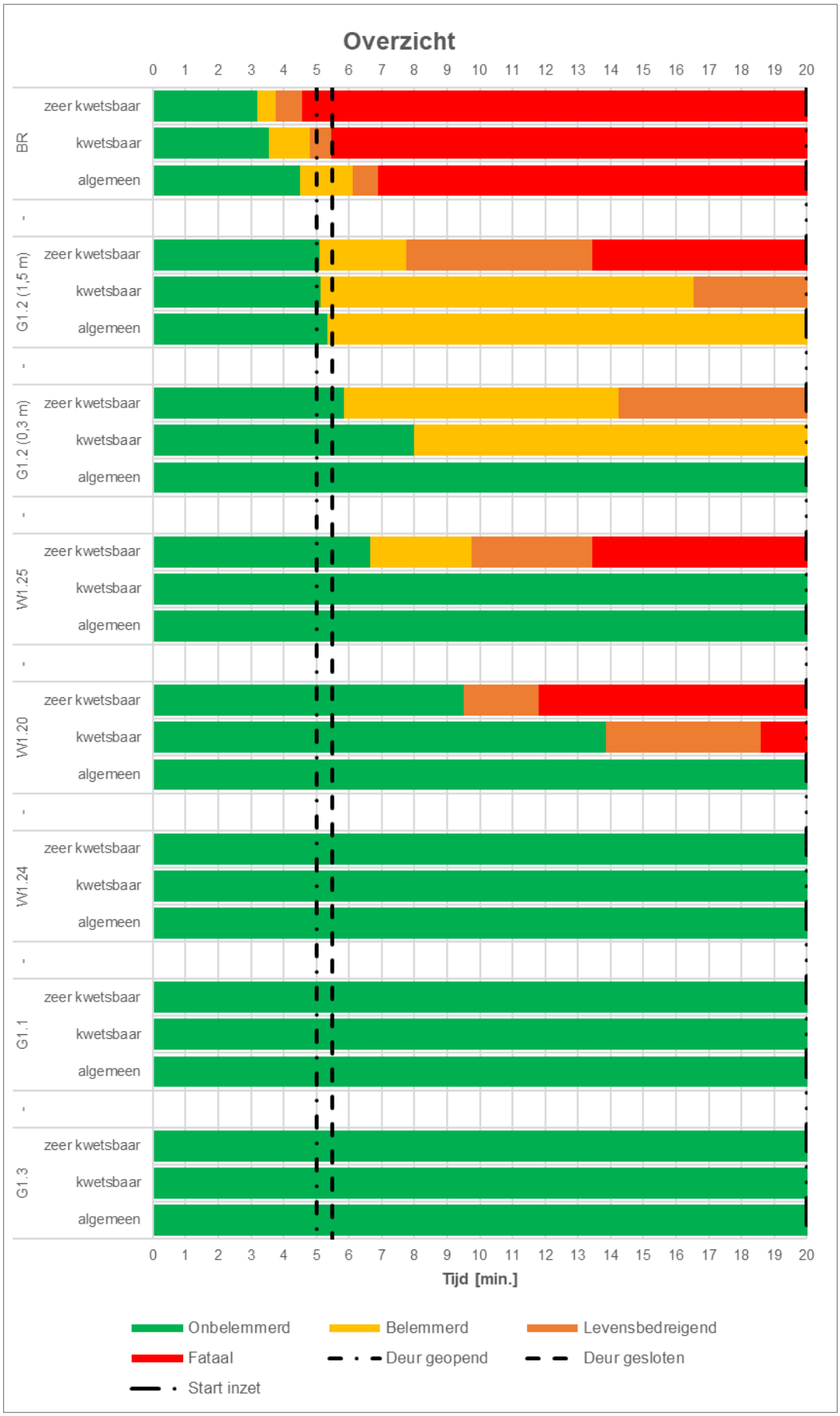

G1.2 (1,5 m)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
FED_IN
zeer kwetsbaar
kwetsbaar
algemeen
-
FED_H
zeer kwetsbaar
kwetsbaar
algemeen
-
FEC_S
zeer kwetsbaar
kwetsbaar
algemeen
-
FLD
zeer kwetsbaar
kwetsbaar
algemeen
-
FIC
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet



	Overview	Escape	Survivability		
	Group	Safe [min.]	Impaired [min.]	Life-threatening [min.]	Fatal [min.]
Fire room 1.21 G1	Highly vulnerable	3.2	3.8	4.6	> 4.6
	Vulnerable	3.6	4.8	5.5	> 5.5
	General	4.5	6.1	6.9	> 6.9
Residence 1.20 G2	Highly vulnerable	9.5	9.5	11.8	> 11.8
	Vulnerable	13.9	13.9	18.6	> 18.6
	General	23.6	23.6	36.8	> 36.8
Residence 1.24 G3	Highly vulnerable	28.6	28.6	31.0	> 31.0
	Vulnerable	33.0	33.0	38.7	> 38.7
	General	> 55.0	-	-	-
Residence 1.25 G4	Highly vulnerable	6.7	9.8	13.5	> 13.5
	Vulnerable	20.4	20.4	27.7	> 27.7

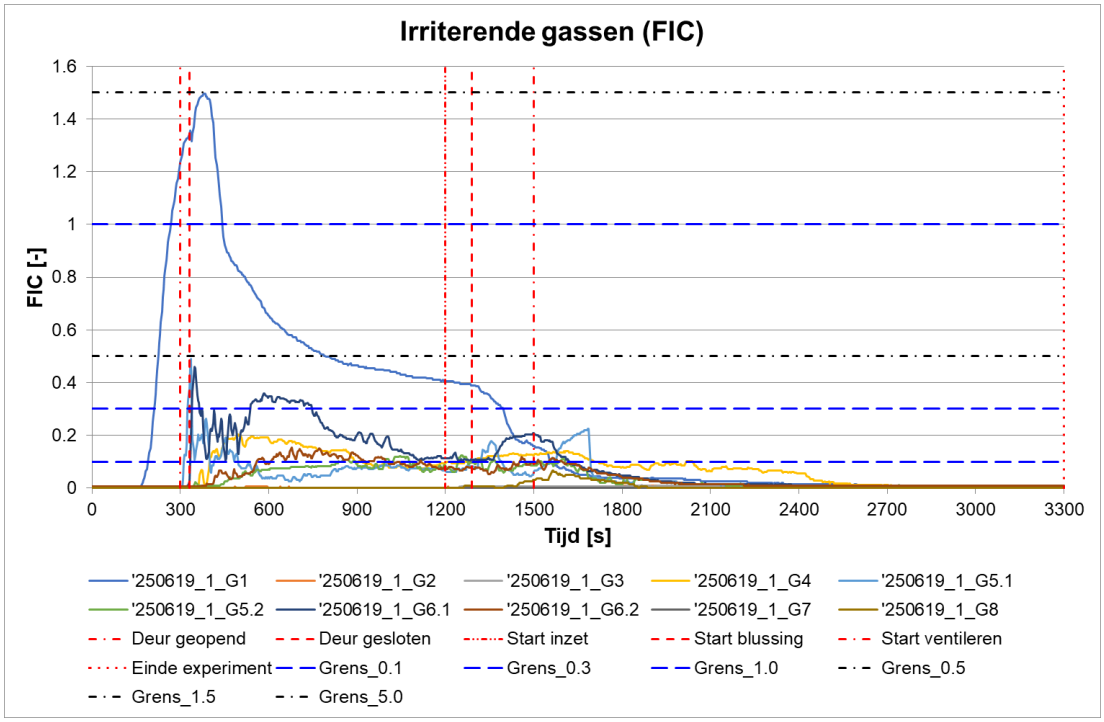
	General	32.0	32.0	40.7	> 40.7
Corridor 1.2 G5.1	Highly vulnerable	5.0	8.2	17.5	> 17.5
	Vulnerable	5.1	22.3	24.2	> 24.2
	General	5.2	27.6	> 55.0	-
Corridor 1.2 G5.2	Highly vulnerable	5.3	15.4	21.3	> 21.3
	Vulnerable	8.1	25.1	30.0	> 30.0
	General	24.3	37.4	> 55.0	-
Corridor 1.2 G6.1	Highly vulnerable	5.2	7.3	9.5	9.5
	Vulnerable	5.2	10.9	18.9	18.9
	General	5.4	25.1	> 55.0	-
Corridor 1.2 G6.2	Highly vulnerable	6.4	13.2	19.6	19.6
	Vulnerable	7.9	25.1	> 55.0	-
	General	40.8	> 55.0	-	-
Corridor 1.1 G7	Highly vulnerable	39.4	39.4	50.7	> 50.7
	Vulnerable	> 55.0	-	-	-
	General	> 55.0	-	-	-
Corridor 1.3 G8	Highly vulnerable	28.0	28.0	35.0	> 35.0
	Vulnerable	42.3	42.3	> 55.0	-
	General	> 55.0	-	-	-

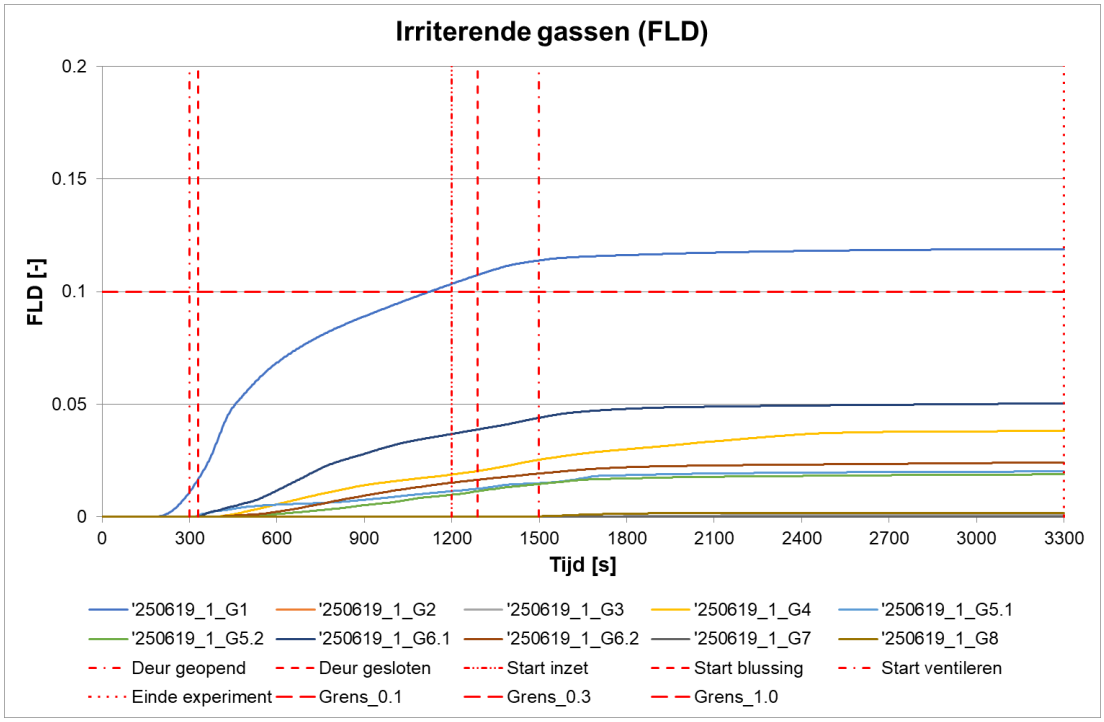

Overzicht
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (1,5 m)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (0,3 m)
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet


Overzicht
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (1,5 m)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (0,3 m)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

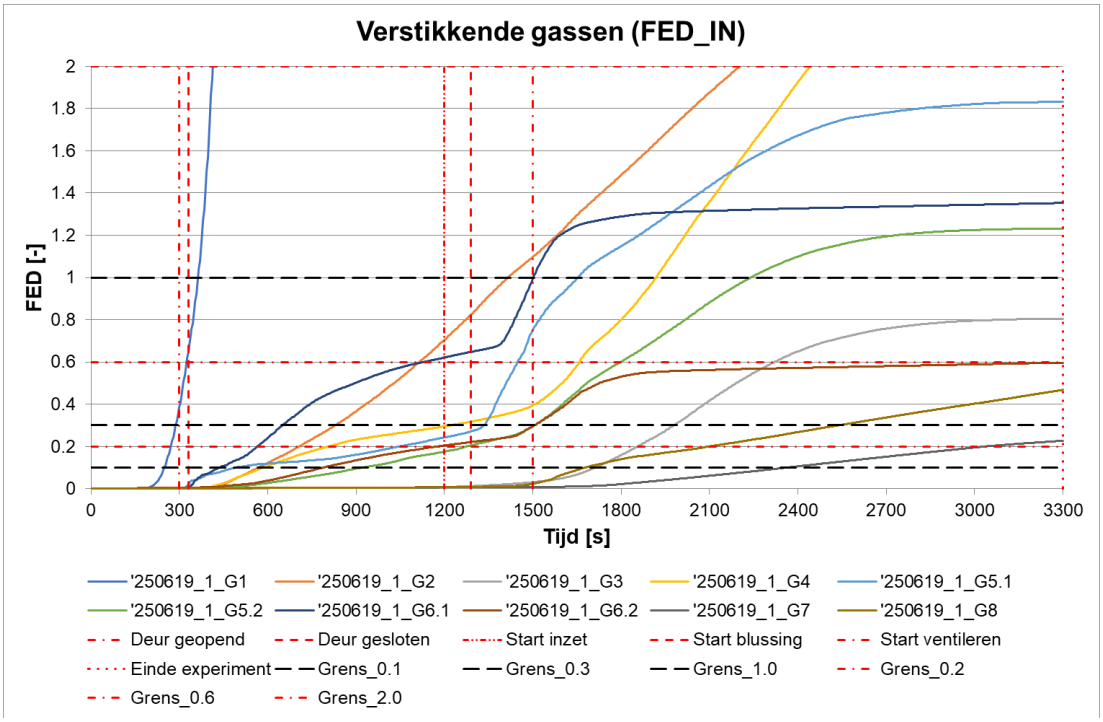
C. Deployment phase (20 - 55 minutes)

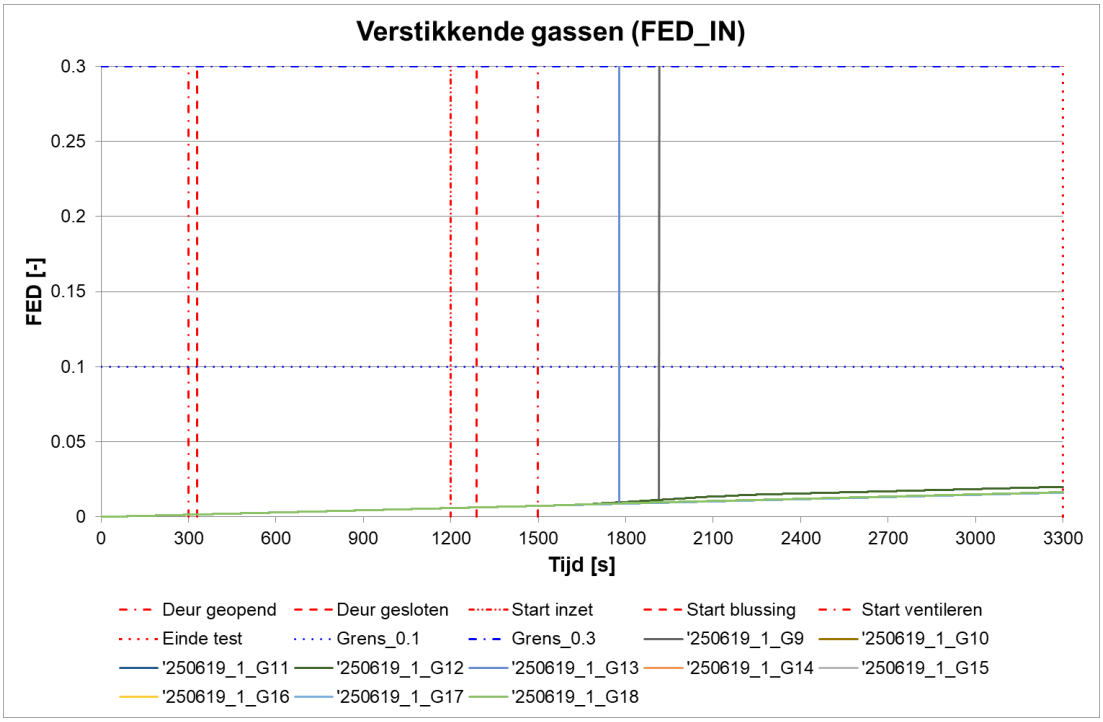
Irritant gases





Asphyxiant gases

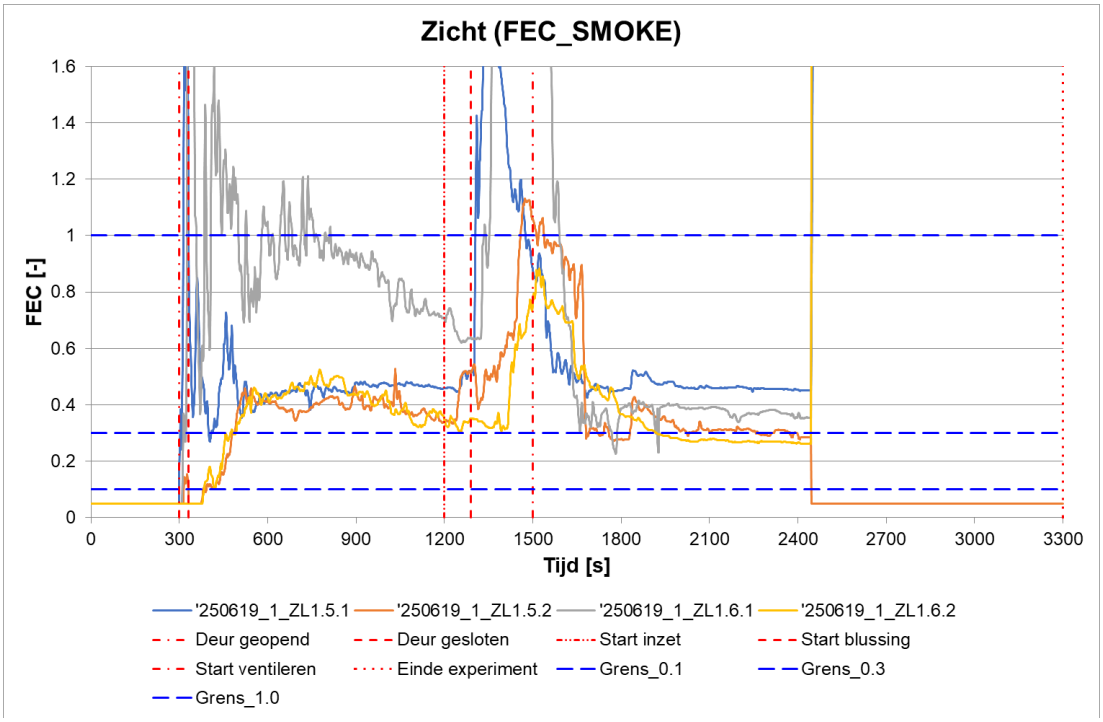




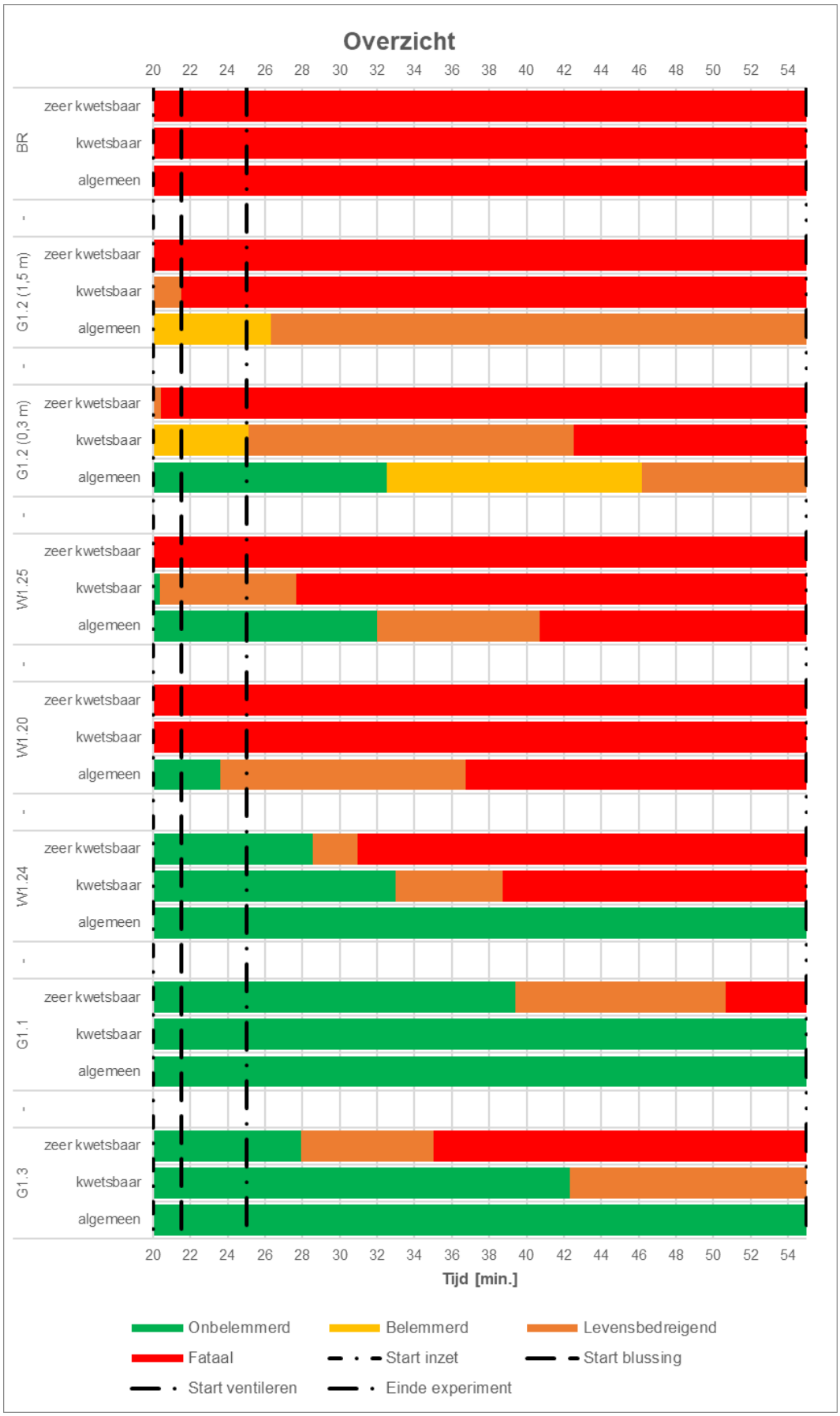
Heat

No reliable measurement.

Visibility


Zicht (FEC_SMOKE)
FEC [-]
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0
300
600
900
1200
1500
1800
2100
2400
2700
3000
3300
Tijd [s]
'250619_1_ZL1.5.1
'250619_1_ZL1.5.2
'250619_1_ZL1.6.1
'250619_1_ZL1.6.2
Deur geopend
Deur gesloten
Start inzet
Start blussing
Start ventileren
Einde experiment
Grens_0.1
Grens_0.3
Grens_1.0

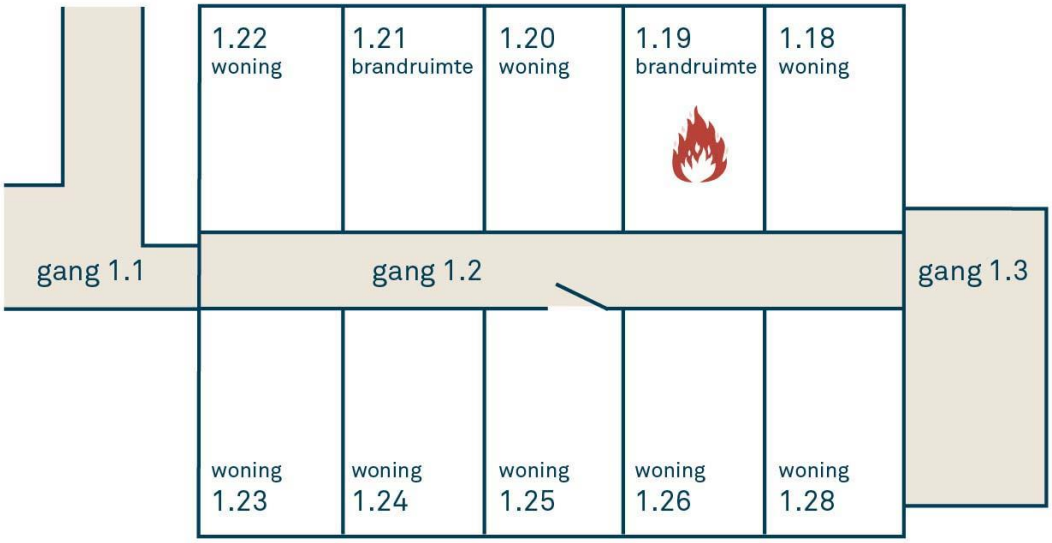
Overview


Overzicht
20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54
BR
G1.2 (1,5 m)
G1.2 (0,3 m)
W1.25
W1.20
W1.24
G1.1
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Start inzet
Start blussing
Start ventileren
Einde experiment

Test 3 (variant 0: door open) 25-06-19

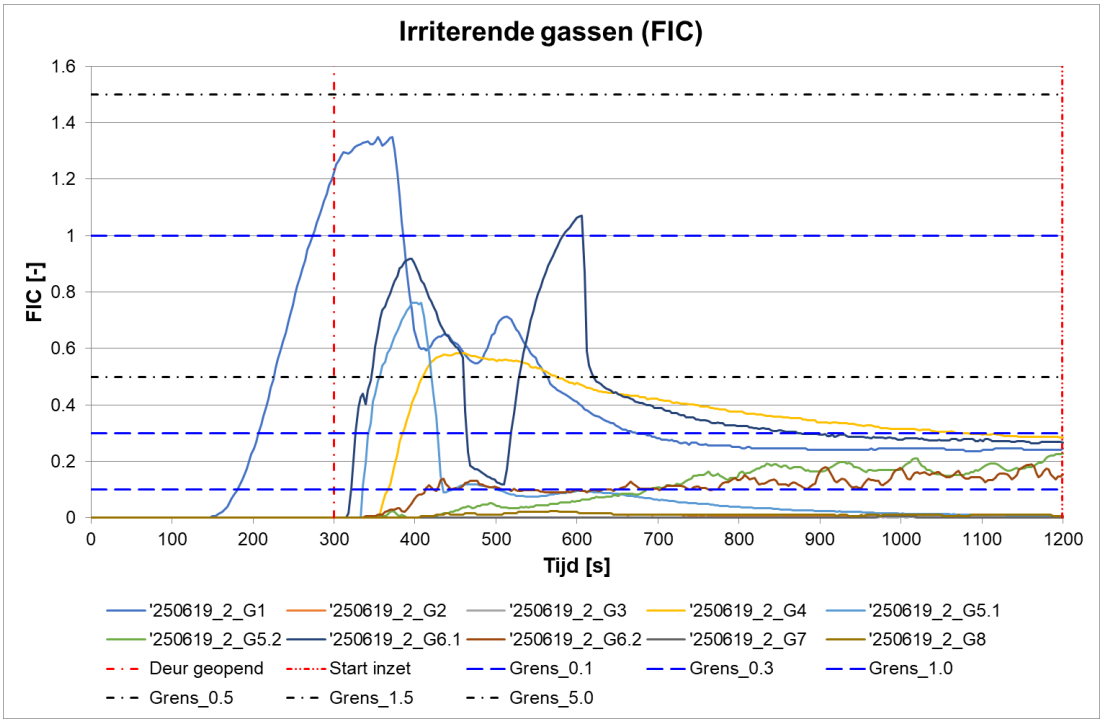
A. Description of the test

Test number	3
Date	25/06/2019
Morning / afternoon	Afternoon
Fire room	1.19
Door to the fire room open / closed	Open
Fire service deployment	Defensive interior attack
Extra measures	None
Specific aspects	Door to residence 1.20 not closed properly during the deployment. Therefore the command ' 1+2 open door 1.24 3+4 open door 1.23 was given at 27 minutes instead of 25.5 minutes.



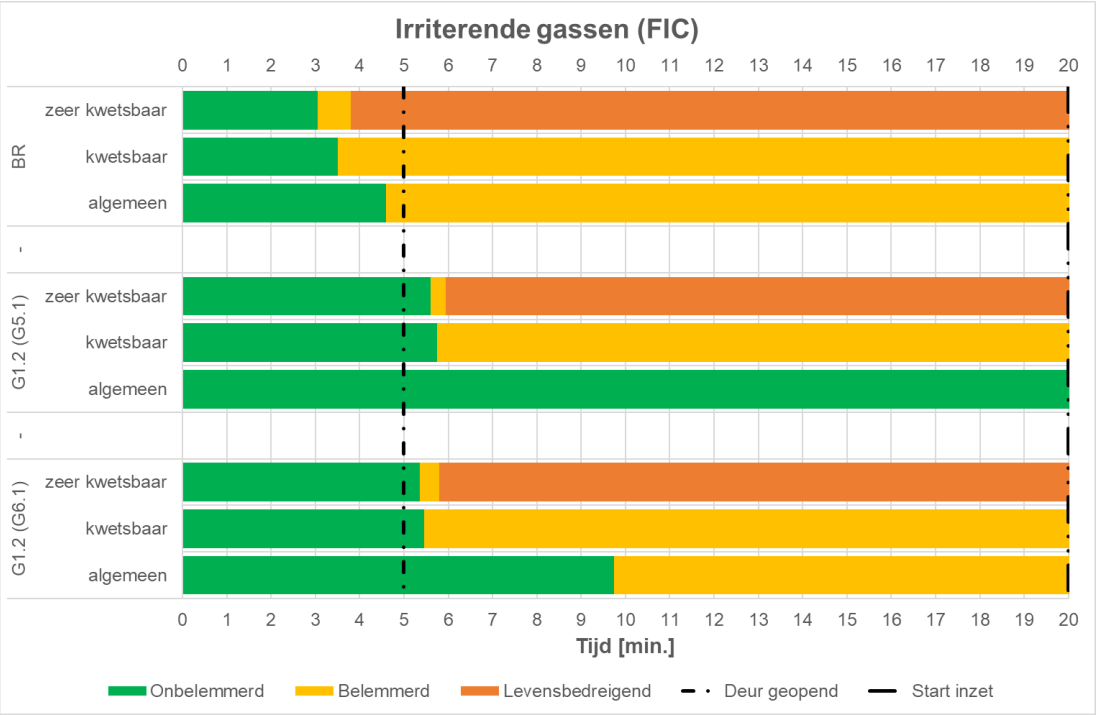
B. Escape phase (0 - 20 minutes)

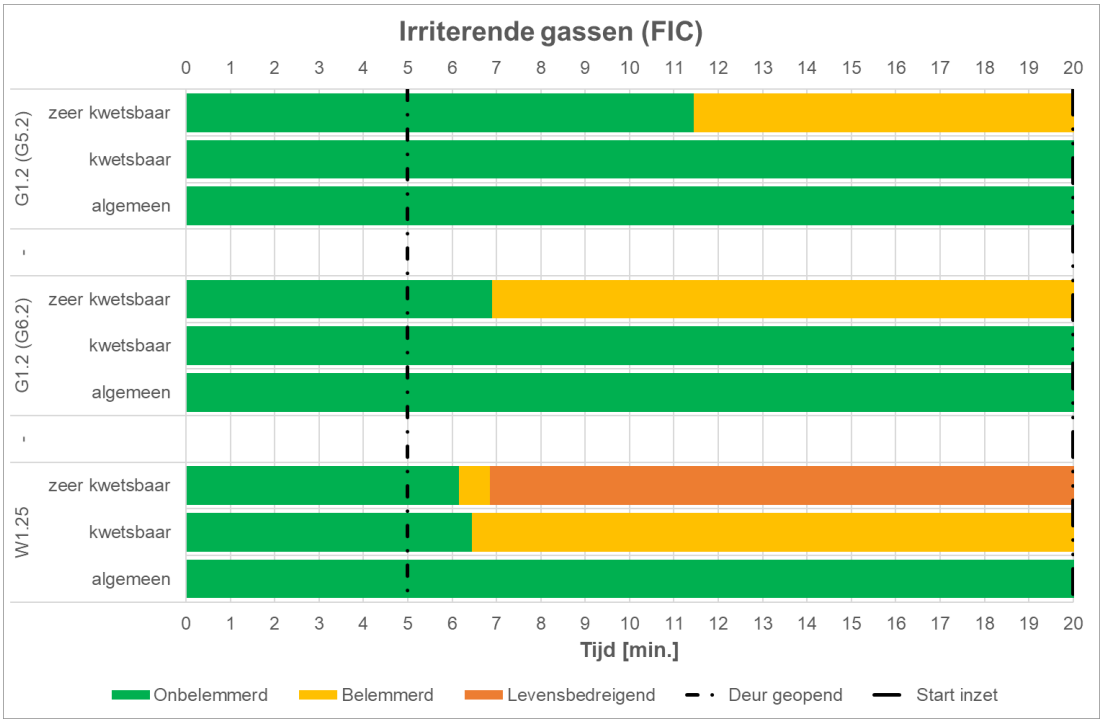
Irritant gases

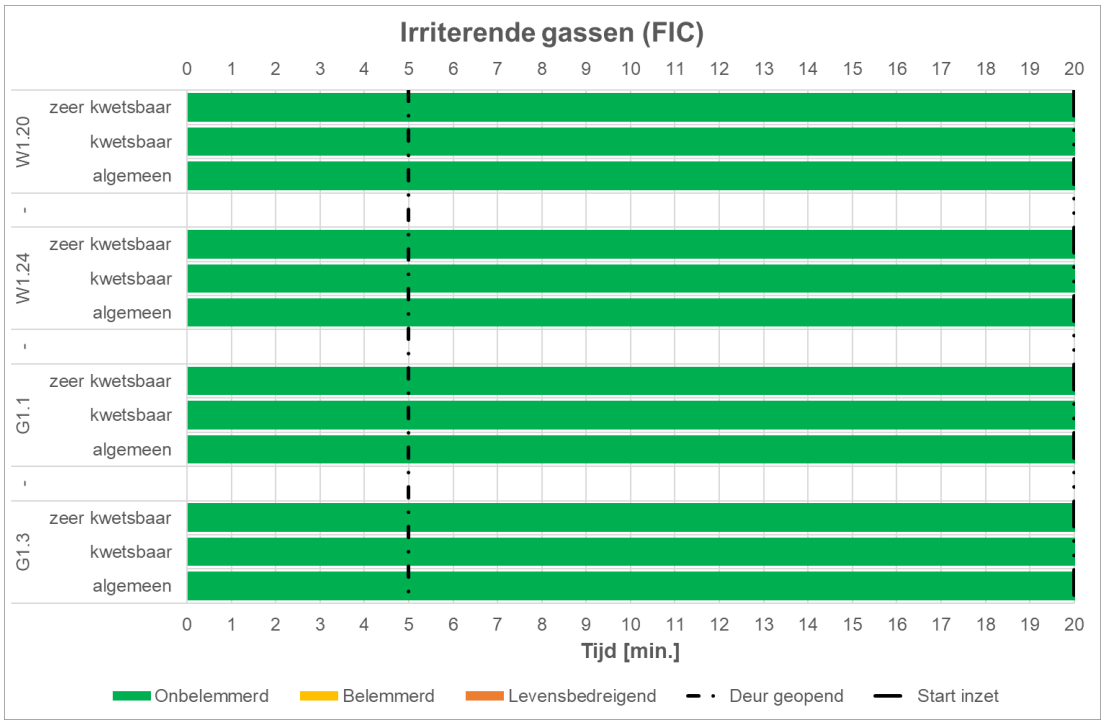


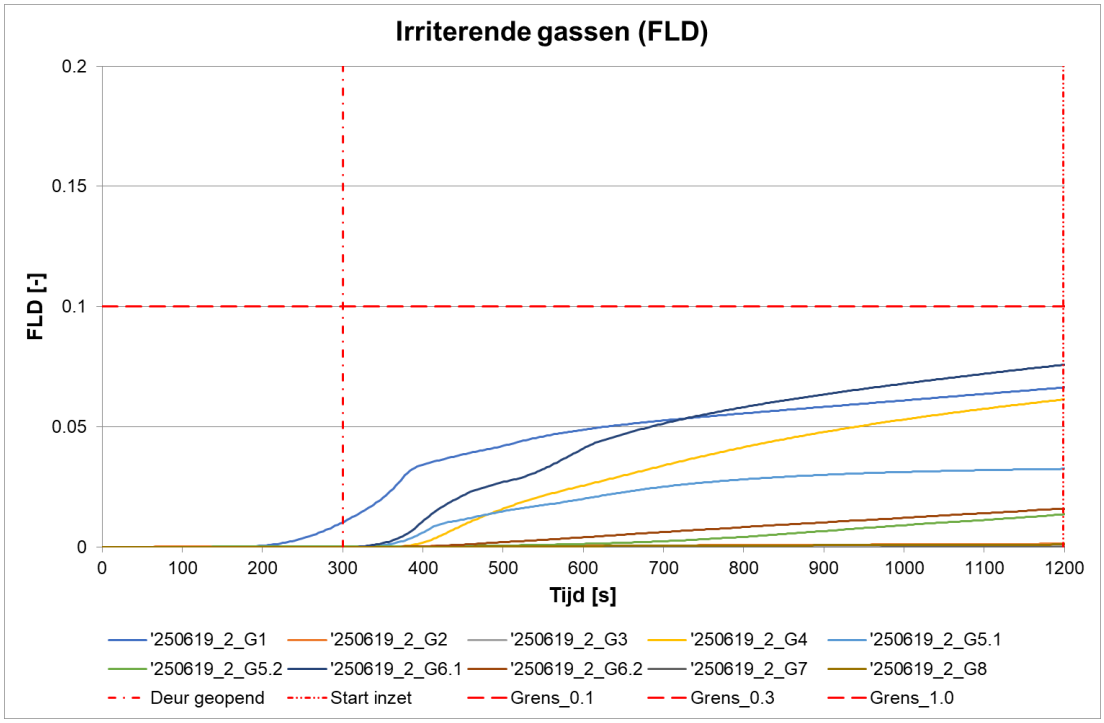
	Irritant gases (FIC)				
	Group	Threshold [-]	Safe [min.]	Impaired [min.]	Life-threatening [min.]
Fire room 1.19 G1	Highly vulnerable	0.1/0.5	3.1	3.8	> 3.8
	Vulnerable	0.3/1.5	3.5	> 55.0	-
	General	1.0/5.0	4.6	> 55.0	-
Residence 1.20 G2	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Residence 1.24 G3	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-

Residence 1.25 G4	Highly vulnerable	0.1/0.5	6.2	6.9	> 6.9
	Vulnerable	0.3/1.5	6.5	> 55.0	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.5	5.6	6.0	> 6.0
	Vulnerable	0.3/1.5	5.8	> 55.0	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.5	11.5	> 55.0	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.5	5.4	5.8	> 5.8
	Vulnerable	0.3/1.5	5.5	> 55.0	-
	General	1.0/5.0	9.8	> 55.0	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.5	6.9	> 55.0	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-


Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G5.1)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.1)
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Start inzet

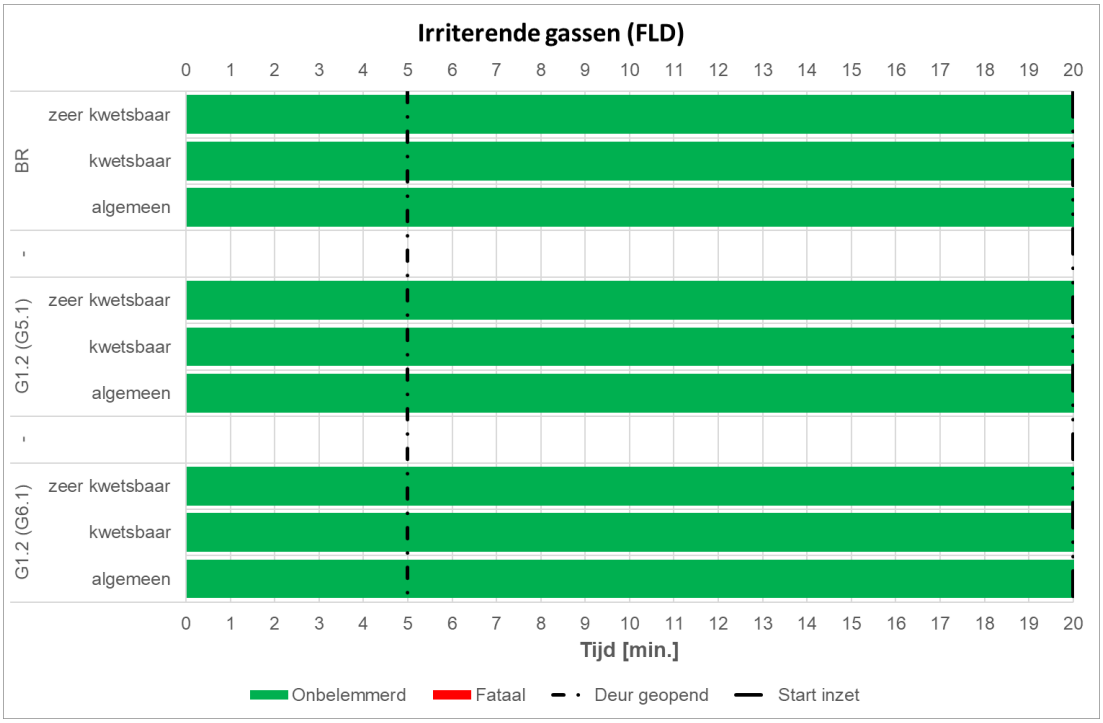

Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Start inzet


Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Start inzet

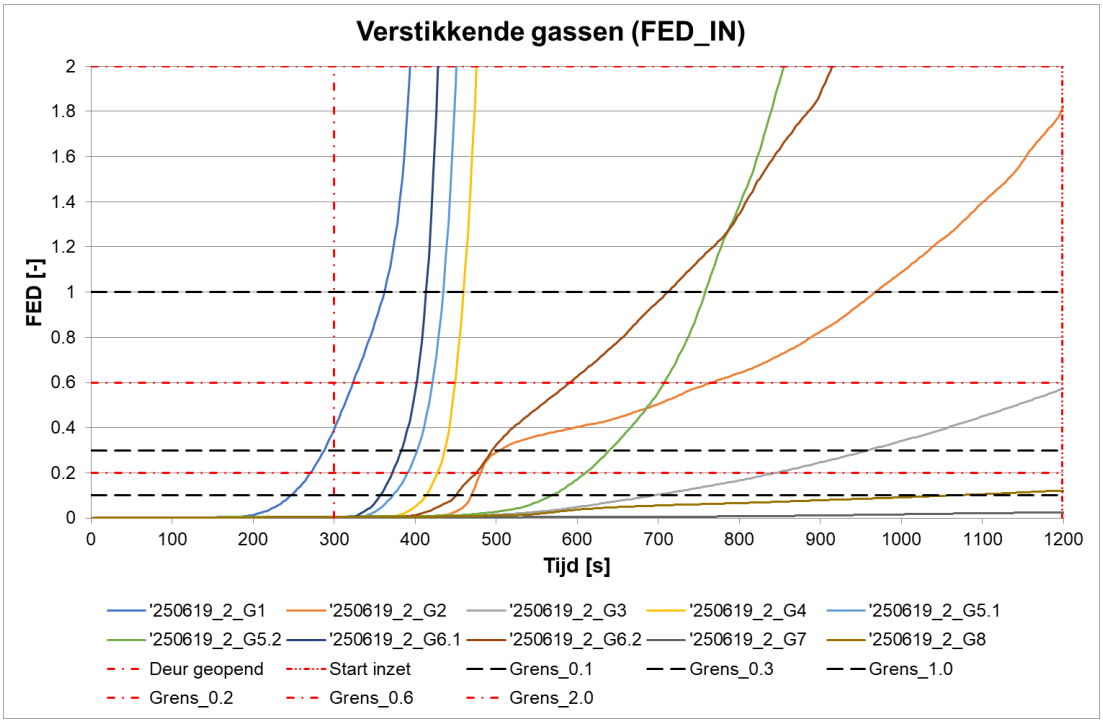

Irriterende gassen (FLD)
0.2
0.15
0.1
0.05
0
FLD [-]
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
Tijd [s]
'250619_2_G1
'250619_2_G2
'250619_2_G3
'250619_2_G4
'250619_2_G5.1
'250619_2_G5.2
'250619_2_G6.1
'250619_2_G6.2
'250619_2_G7
'250619_2_G8
Deur geopend
Start inzet
Grens_0.1
Grens_0.3
Grens_1.0

	Irritant gases (FLD)			
	Group	Threshold [-]	Safe [min.]	Impaired [min.]
Fire room 1.19 G1	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.20 G2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.24 G3	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.25 G4	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G5.1	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G5.2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G6.1	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G6.2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-

	General	1.0	> 55.0	-
Corridor 1.1 G7	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.3 G8	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-

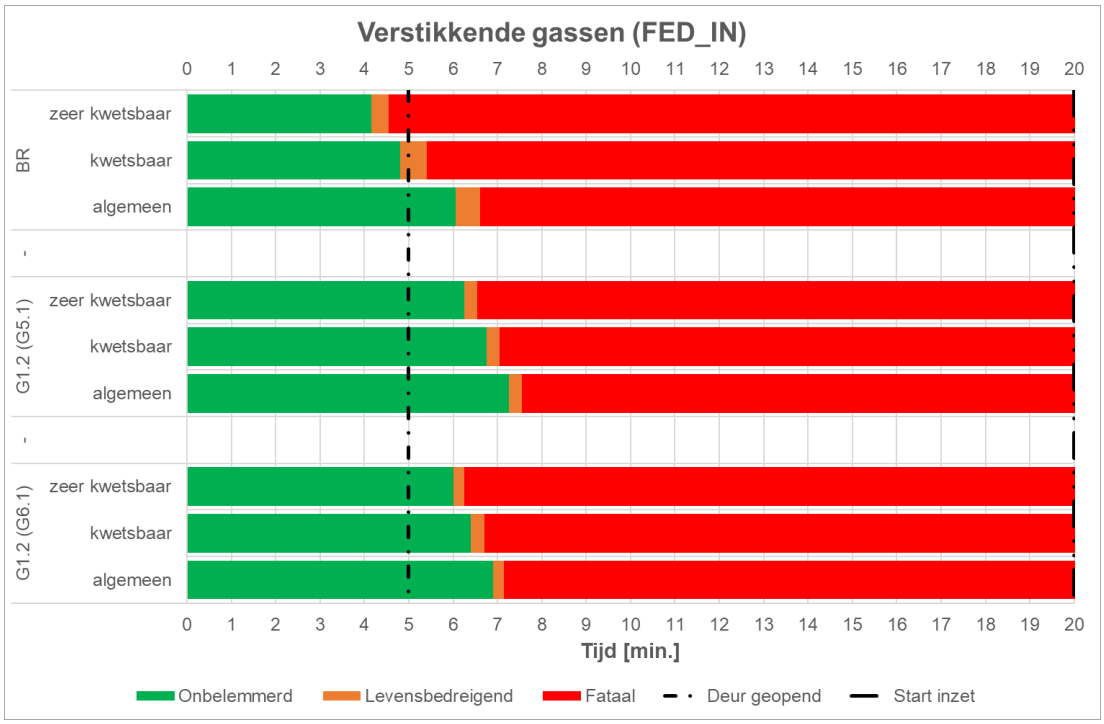


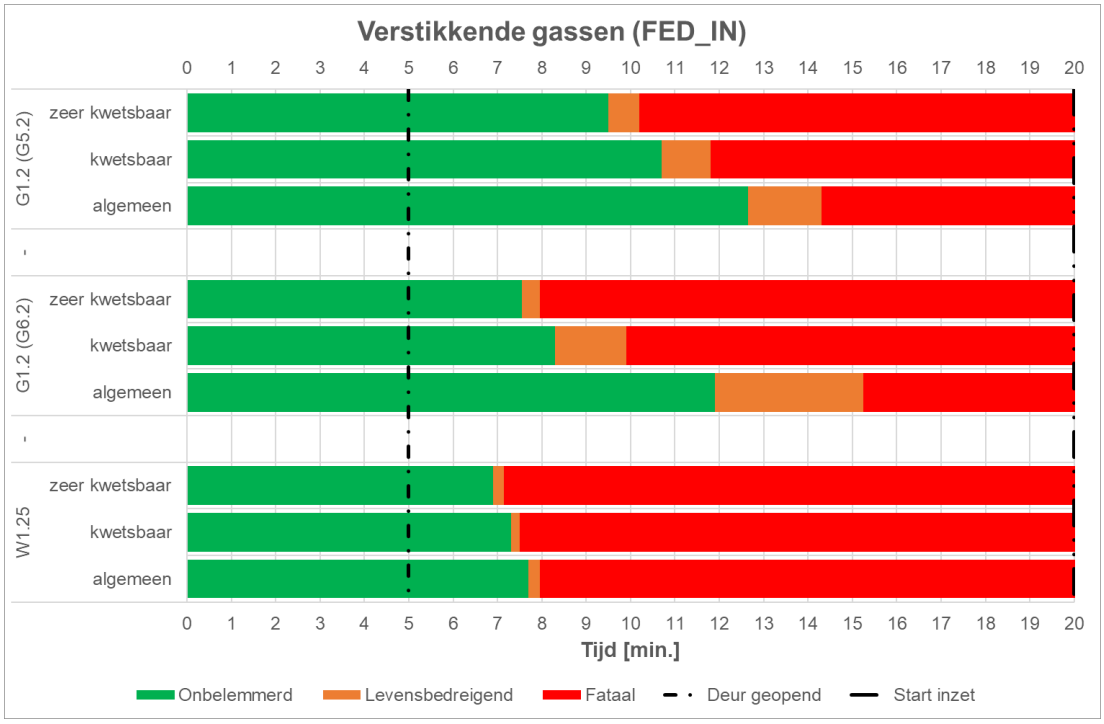
Asphyxiant gases

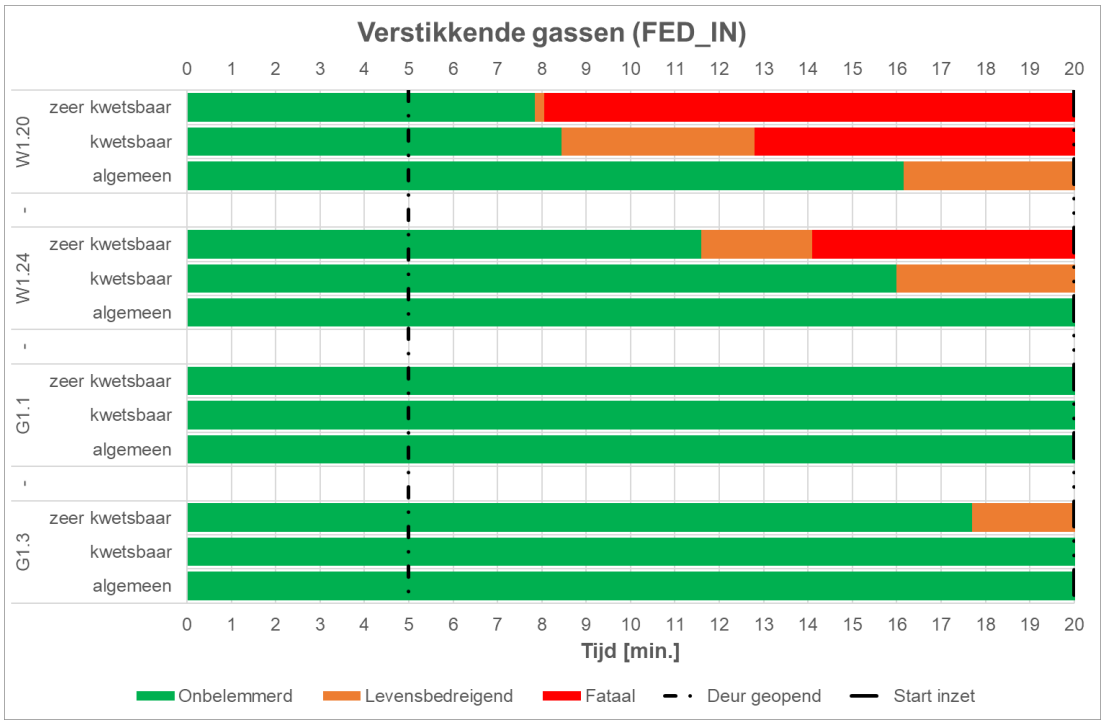


		Asphyxiant gases (FED_IN)			
	Group	Threshold [-]	Safe [min.]	Life-threatening [min.]	Fatal [min.]
Fire room 1.19 G1	Highly vulnerable	0.1/0.2	4.2	4.6	> 4.6
	Vulnerable	0.3/0.6	4.8	5.4	> 5.4
	General	1.0/2.0	6.1	6.6	> 6.6
Residence 1.20 G2	Highly vulnerable	0.1/0.2	7.9	8.1	> 8.1
	Vulnerable	0.3/0.6	8.5	12.8	> 12.8
	General	1.0/2.0	16.2	20.3	> 20.3
Residence 1.24 G3	Highly vulnerable	0.1/0.2	11.6	14.1	> 14.1
	Vulnerable	0.3/0.6	16.0	20.4	> 20.4
	General	1.0/2.0	23.6	29.0	> 29.0

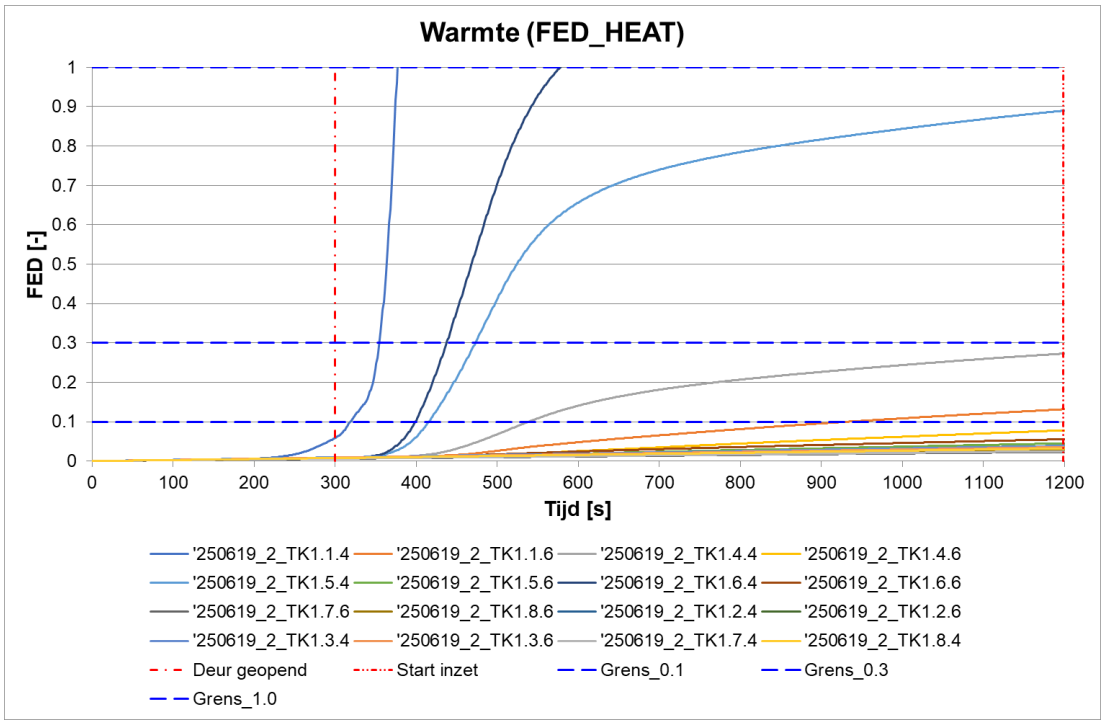
Residence 1.25 G4	Highly vulnerable	0.1/0.2	6.9	7.2	> 7.2
	Vulnerable	0.3/0.6	7.3	7.5	> 7.5
	General	1.0/2.0	7.7	8.0	> 8.0
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.2	6.3	6.6	> 6.6
	Vulnerable	0.3/0.6	6.8	7.1	> 7.1
	General	1.0/2.0	7.3	7.6	> 7.6
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.2	9.5	10.2	> 10.2
	Vulnerable	0.3/0.6	10.7	11.8	> 11.8
	General	1.0/2.0	12.7	14.3	> 14.3
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.2	6.0	6.3	> 6.3
	Vulnerable	0.3/0.6	6.4	6.7	> 6.7
	General	1.0/2.0	6.9	7.2	> 7.2
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.2	7.6	8.0	> 8.0
	Vulnerable	0.3/0.6	8.3	9.9	> 9.9
	General	1.0/2.0	11.9	15.3	> 15.3
Corridor 1.1 G7	Highly vulnerable	0.1/0.2	34.7	45.3	> 45.3
	Vulnerable	0.3/0.6	52.9	> 55.0	-
	General	1.0/2.0	> 55.0	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.2	17.7	22.7	22.7
	Vulnerable	0.3/0.6	24.9	31.1	31.1
	General	1.0/2.0	38.6	> 55.0	-


Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G5.1)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.1)
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet


Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet

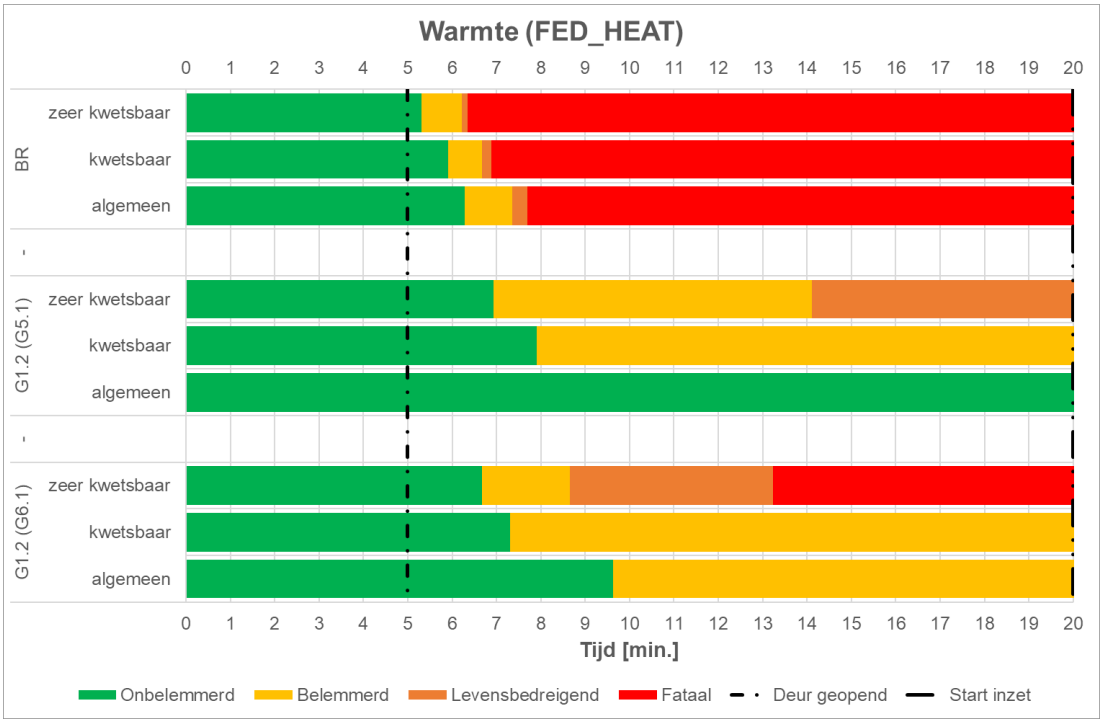

Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet

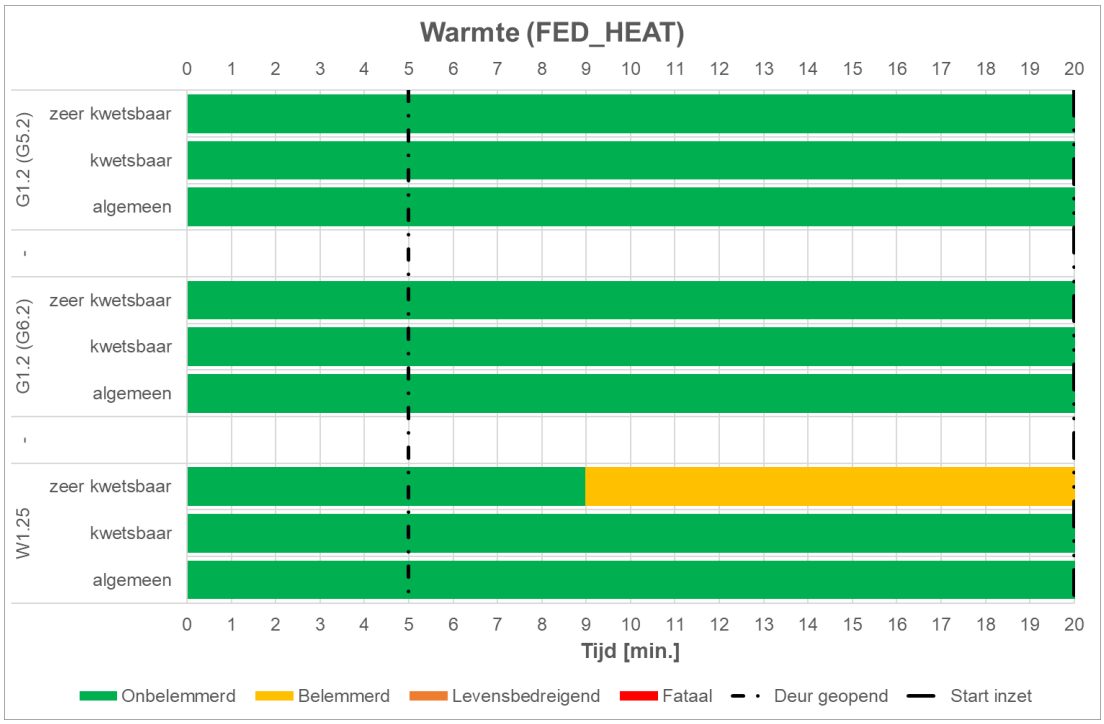
Heat

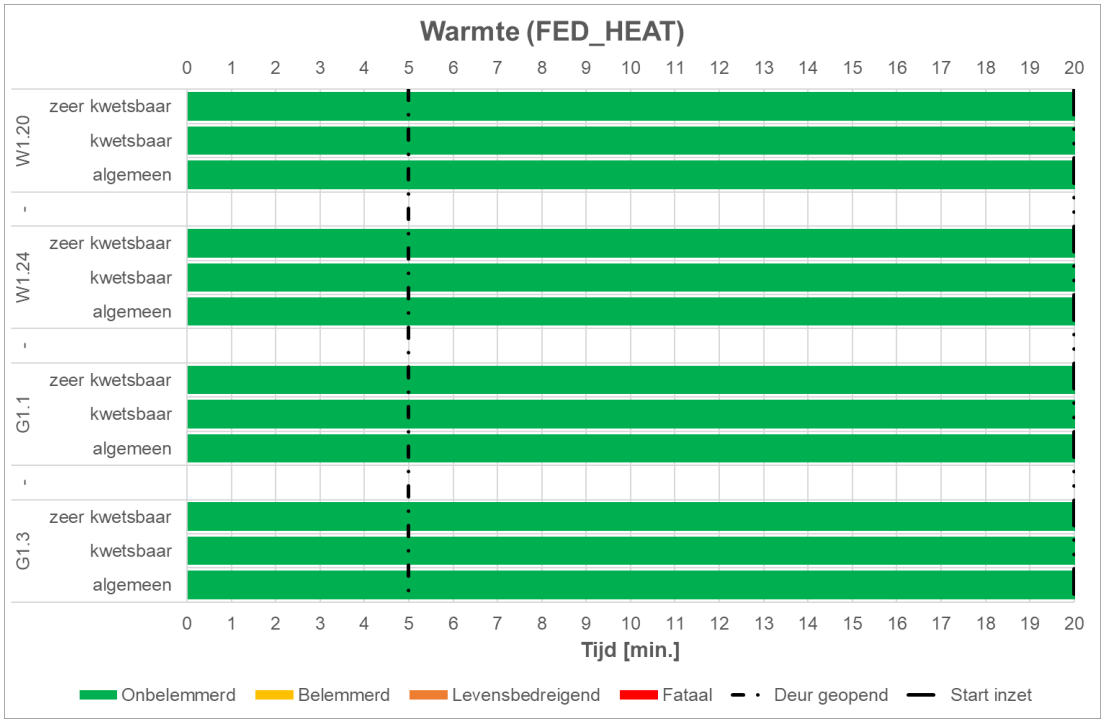

Warmte (FED_HEAT)
FED [-]
0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
Tijd [s]
'250619_2_TK1.1.4
'250619_2_TK1.1.6
'250619_2_TK1.4.4
'250619_2_TK1.4.6
'250619_2_TK1.5.4
'250619_2_TK1.5.6
'250619_2_TK1.6.4
'250619_2_TK1.6.6
'250619_2_TK1.7.6
'250619_2_TK1.8.6
'250619_2_TK1.2.4
'250619_2_TK1.2.6
'250619_2_TK1.3.4
'250619_2_TK1.3.6
'250619_2_TK1.7.4
'250619_2_TK1.8.4
Deur geopend
Start inzet
Grens_0.1
Grens_0.3
Grens_1.0

		Heat (FED_HEAT)				
	Group	Threshold [-]	Safe [min.]	Impaired [min.]	Life-threatening [min.]	Fatal [min.
Fire room 1.19 G1	Highly vulnerable	0.1/0.8/1.2	5.3	6.2	6.4	> 6.4
	Vulnerable	0.3/2.4/12.0	5.9	6.7	6.9	> 6.9
	General	1.0/8.0/12.0	6.3	7.4	7.7	> 7.7
Residence 1.20 G2	Highly vulnerable	0.1/0.8/1.2	51.8	> 55.0	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Residence 1.24 G3	Highly vulnerable	0.1/0.8/1.2	48.2	> 55.0	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Residence 1.25 G4	Highly vulnerable	0.1/0.8/1.2	9.0	> 55.0	-	-
	Vulnerable	0.3/2.4/12.0	23.8	> 55.0	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.8/1.2	6.9	14.1	> 55.0	-
	Vulnerable	0.3/2.4/12.0	7.9	> 55.0	-	-
	General	1.0/8.0/12.0	39.7	> 55.0	-	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.8/1.2	45.1	> 55.0	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.8/1.2	6.7	8.7	13.2	> 13.2

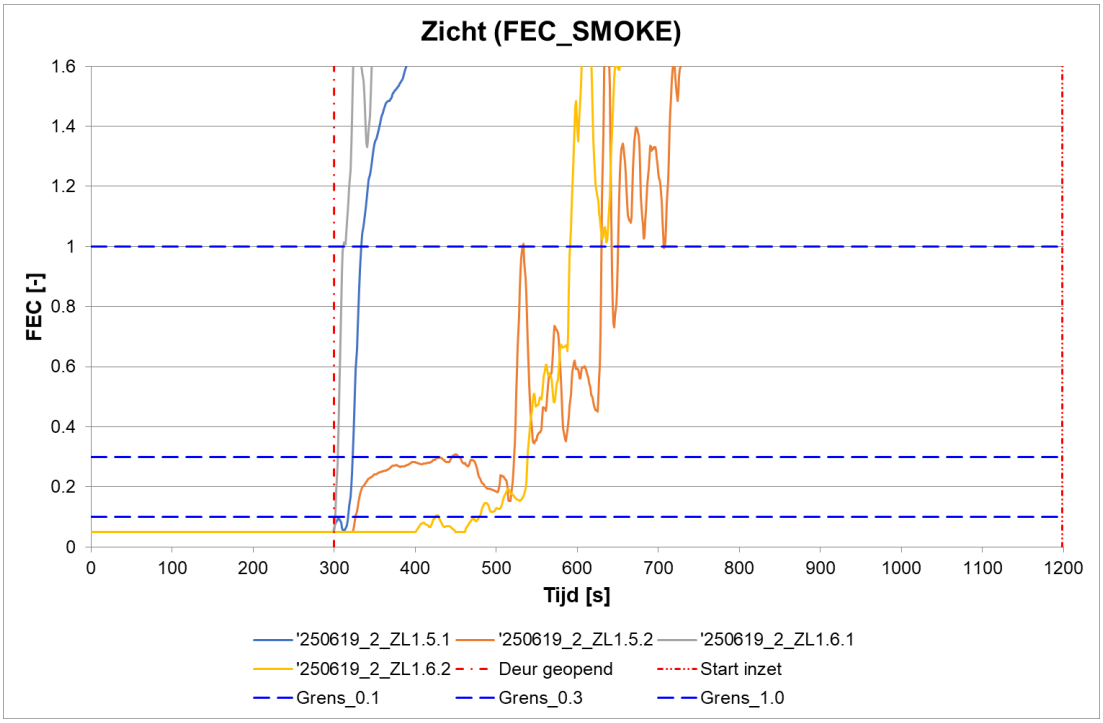
	Vulnerable	0.3/2.4/12.0	7.3	> 55.0	-	-
	General	1.0/8.0/12.0	9.6	> 55.0	-	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.8/1.2	41.5	> 55.0	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.8/1.2	53.3	> 55.0	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-




Warmte (FED_HEAT)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet

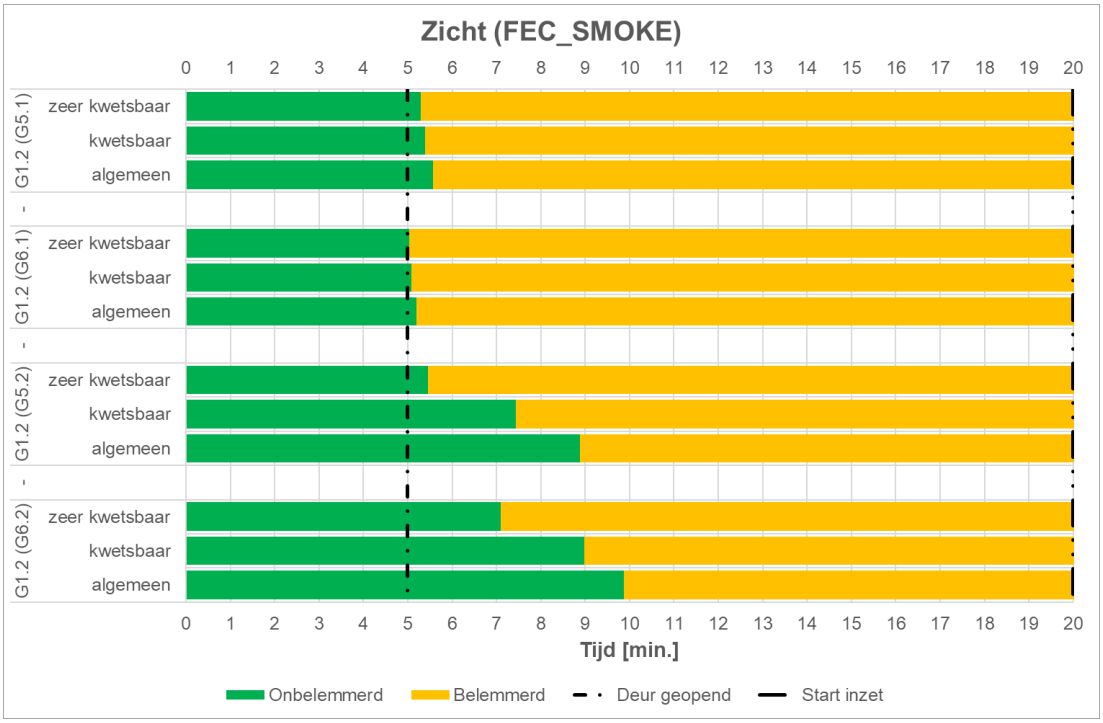

Warmte (FED_HEAT)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet

Visibility

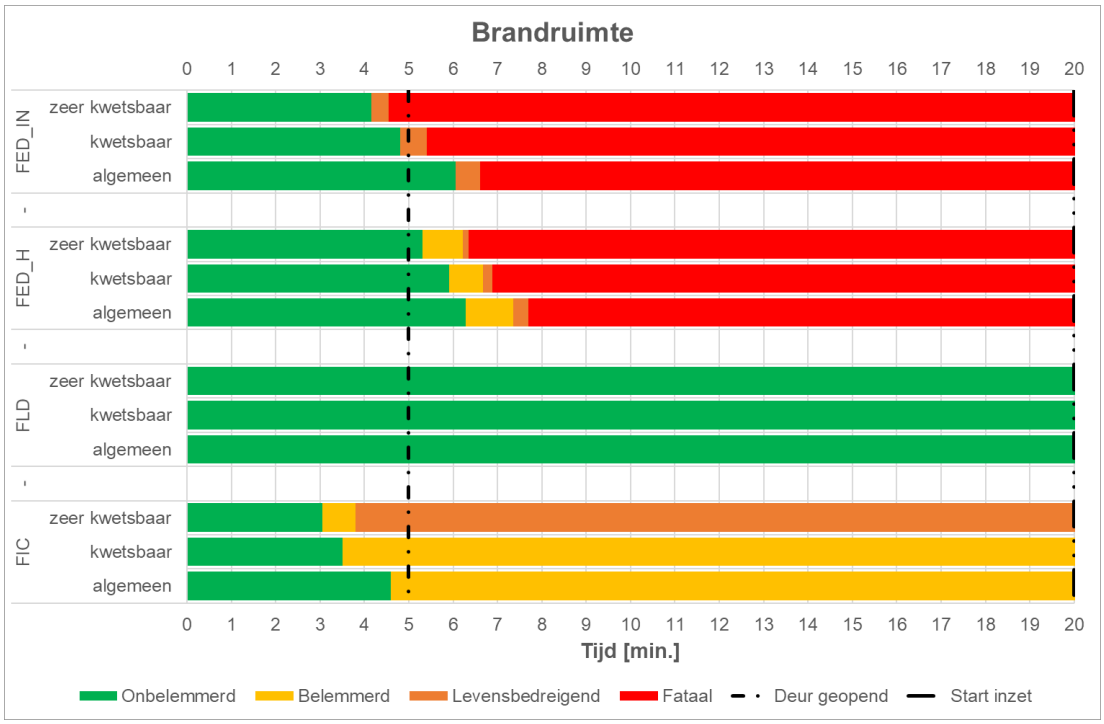


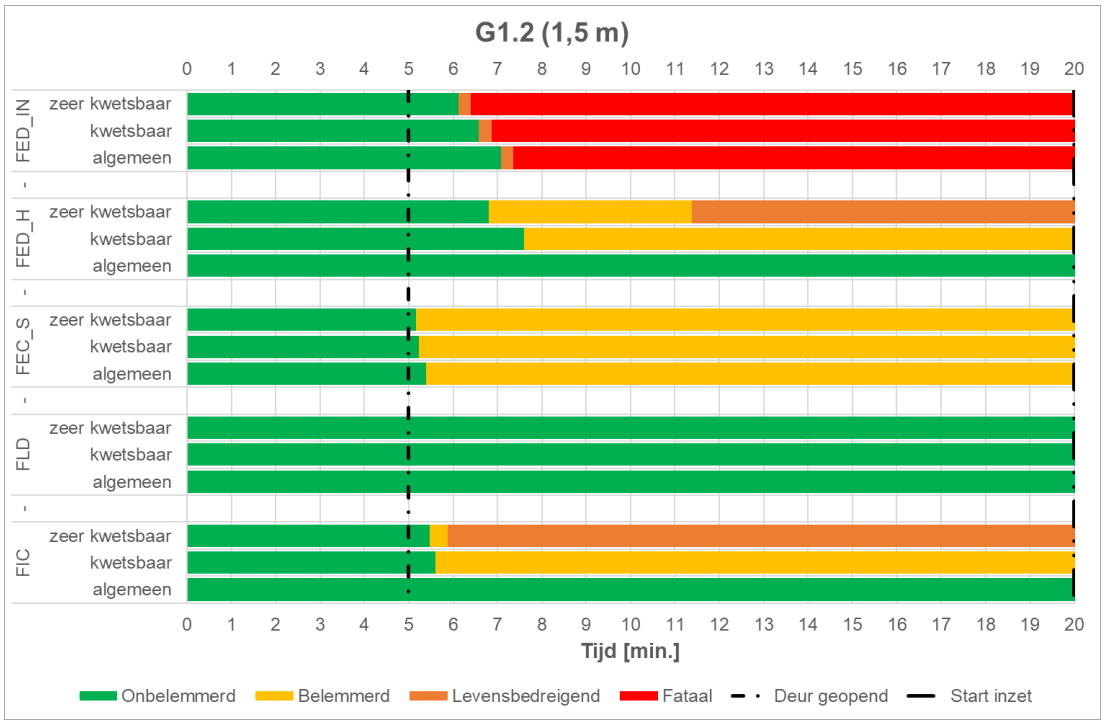
	Visibility (FEC_SMOKE)			
	Group	Threshold [-]	Safe [min.]	Impaired [min.]
Corridor 1.2 G5.1	Highly vulnerable	0.1	5.3	> 5.3
	Vulnerable	0.3	5.4	> 5.4
	General	1.0	5.6	> 5.6
Corridor 1.2 G5.2	Highly vulnerable	0.1	5.5	> 5.5
	Vulnerable	0.3	7.4	> 7.4
	General	1.0	8.9	> 8.9
Corridor 1.2 G6.1	Highly vulnerable	0.1	5.0	> 5.0
	Vulnerable	0.3	5.1	> 5.1
	General	1.0	5.2	> 5.2
Corridor 1.2	Highly vulnerable	0.1	7.1	> 7.1

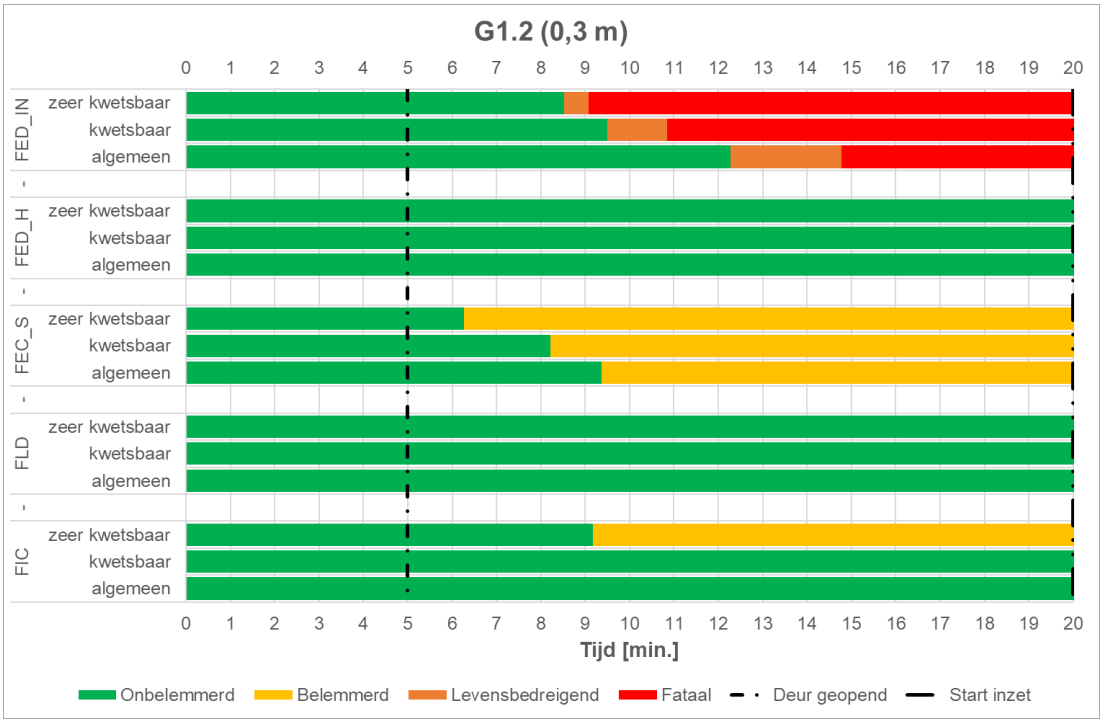
G6.2	Vulnerable	0.3	9.0	> 9.0
	General	1.0	9.9	> 9.9



Overview

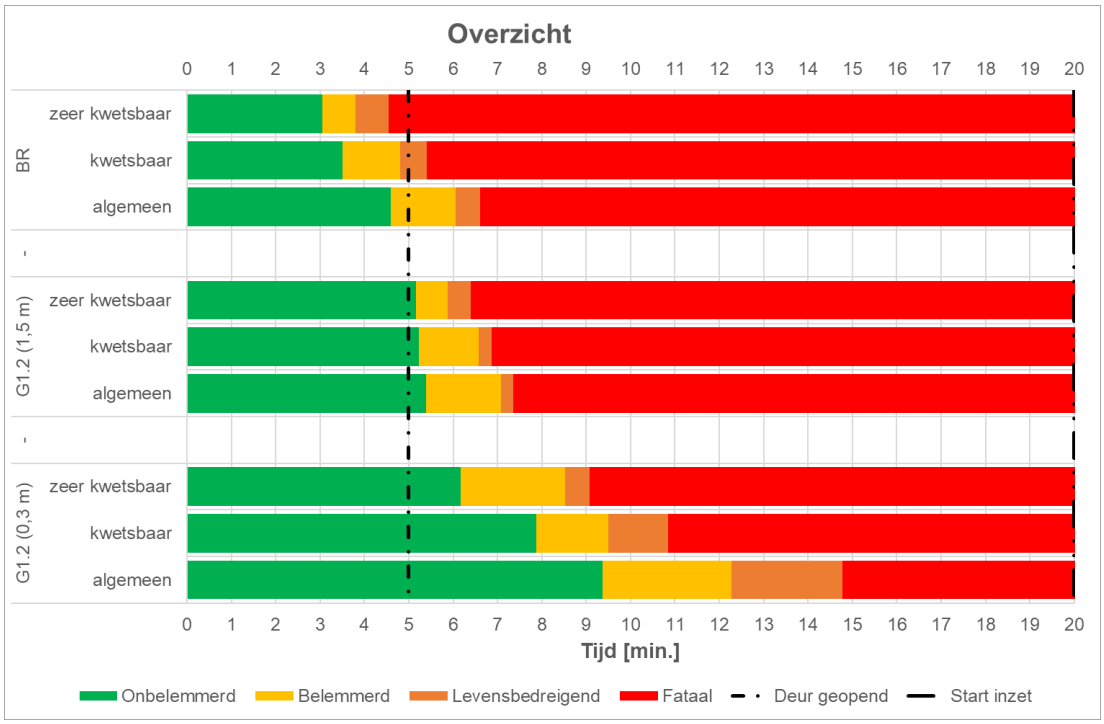

Brandruimte
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
FED_IN
zeer kwetsbaar
kwetsbaar
algemeen
-
FED_H
zeer kwetsbaar
kwetsbaar
algemeen
-
FLD
zeer kwetsbaar
kwetsbaar
algemeen
-
FIC
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet

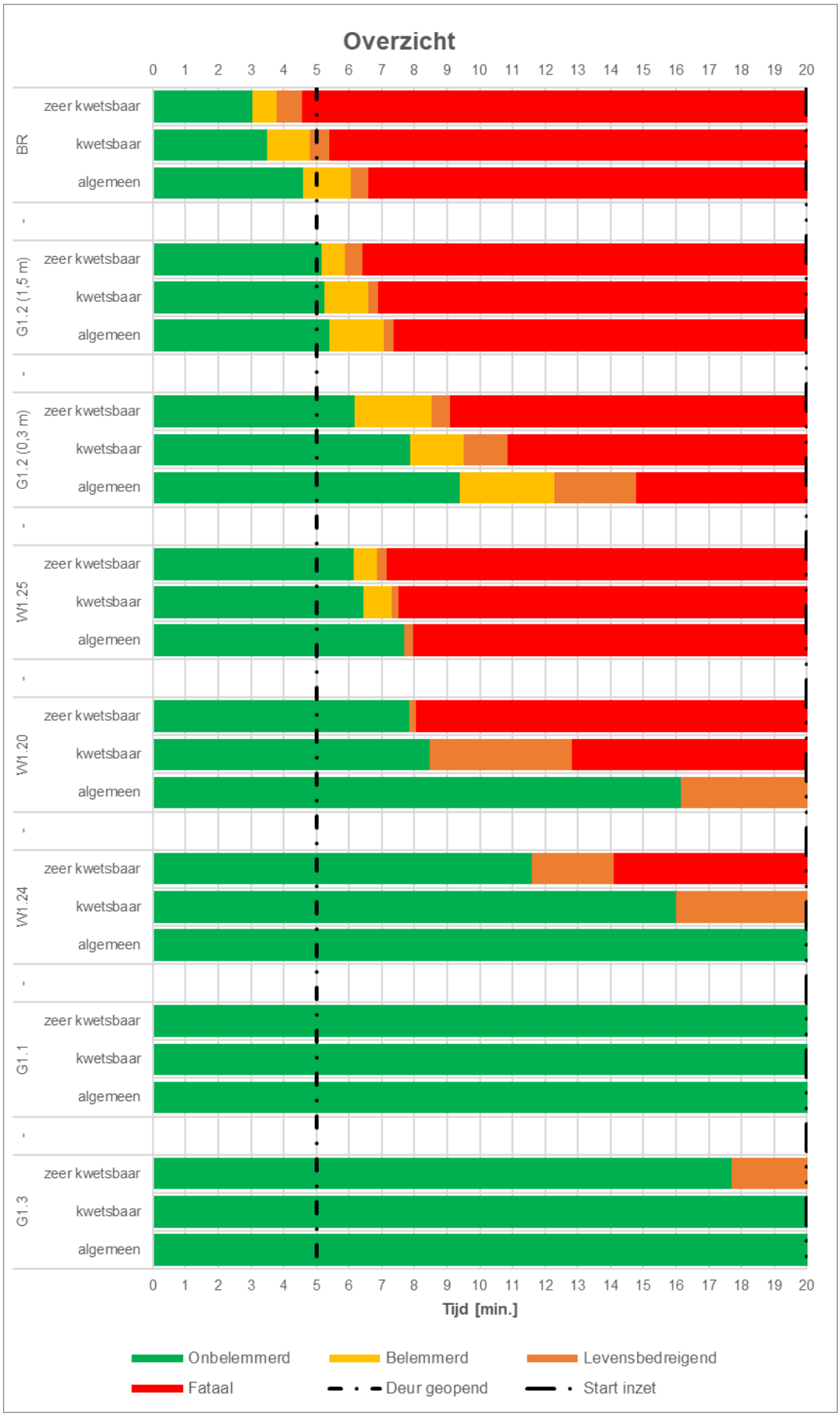

G1.2 (1,5 m)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
FED_IN
zeer kwetsbaar
kwetsbaar
algemeen
-
FED_H
zeer kwetsbaar
kwetsbaar
algemeen
-
FEC_S
zeer kwetsbaar
kwetsbaar
algemeen
-
FLD
zeer kwetsbaar
kwetsbaar
algemeen
-
FIC
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet



	Overview	Escape	Survivability		
	Group	Safe [min.]	Impaired [min.]	Life-threatening [min.]	Fatal [min.]
Fire room 1.19 G1	Highly vulnerable	3.1	3.8	4.6	> 4.6
	Vulnerable	3.5	4.8	5.4	> 5.4
	General	4.6	6.1	6.6	> 6.6
Residence 1.20 G2	Highly vulnerable	7.9	7.9	8.1	> 8.1
	Vulnerable	8.5	8.5	12.8	> 12.8
	General	16.2	16.2	20.3	> 20.3
Residence 1.24 G3	Highly vulnerable	11.6	11.6	14.1	> 14.1
	Vulnerable	16.0	16.0	20.4	> 20.4
	General	23.6	23.6	29.0	> 29.0
Residence 1.25 G4	Highly vulnerable	6.2	6.9	7.2	> 7.2
	Vulnerable	6.5	7.3	7.5	> 7.5

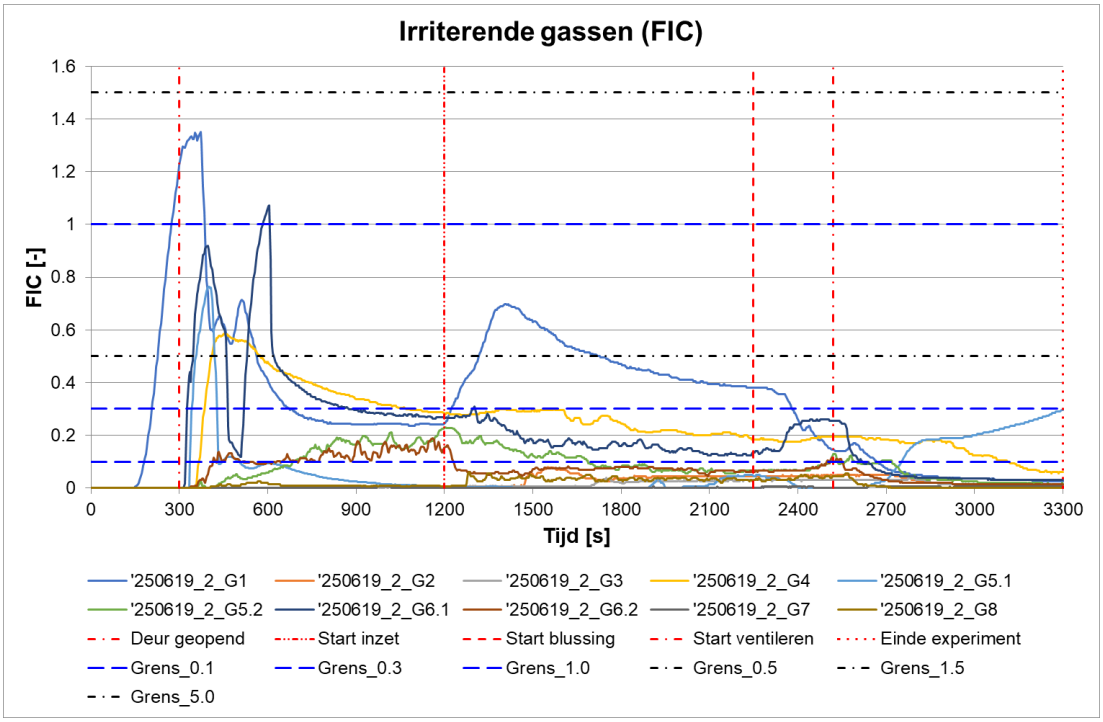
	General	7.7	7.7	8.0	> 8.0
Corridor 1.2 G5.1	Highly vulnerable	5.3	6.0	6.6	> 6.6
	Vulnerable	5.4	6.8	7.1	> 7.1
	General	5.6	7.3	7.6	> 7.6
Corridor 1.2 G5.2	Highly vulnerable	5.5	9.5	10.2	> 10.2
	Vulnerable	7.4	10.7	11.8	> 11.8
	General	8.9	12.7	14.3	> 14.3
Corridor 1.2 G6.1	Highly vulnerable	5.0	5.8	6.3	> 6.3
	Vulnerable	5.1	6.4	6.7	> 6.7
	General	5.2	6.9	7.2	> 7.2
Corridor 1.2 G6.2	Highly vulnerable	6.9	7.6	8.0	> 8.0
	Vulnerable	8.3	8.3	9.9	> 9.9
	General	9.9	11.9	15.3	> 15.3
Corridor 1.1 G7	Highly vulnerable	34.7	34.7	45.3	> 45.3
	Vulnerable	52.9	52.9	> 55.0	-
	General	> 55.0	-	-	-
Corridor 1.3 G8	Highly vulnerable	17.7	17.7	22.7	> 22.7
	Vulnerable	24.9	24.9	31.1	> 31.1
	General	38.6	38.6	> 55.0	-

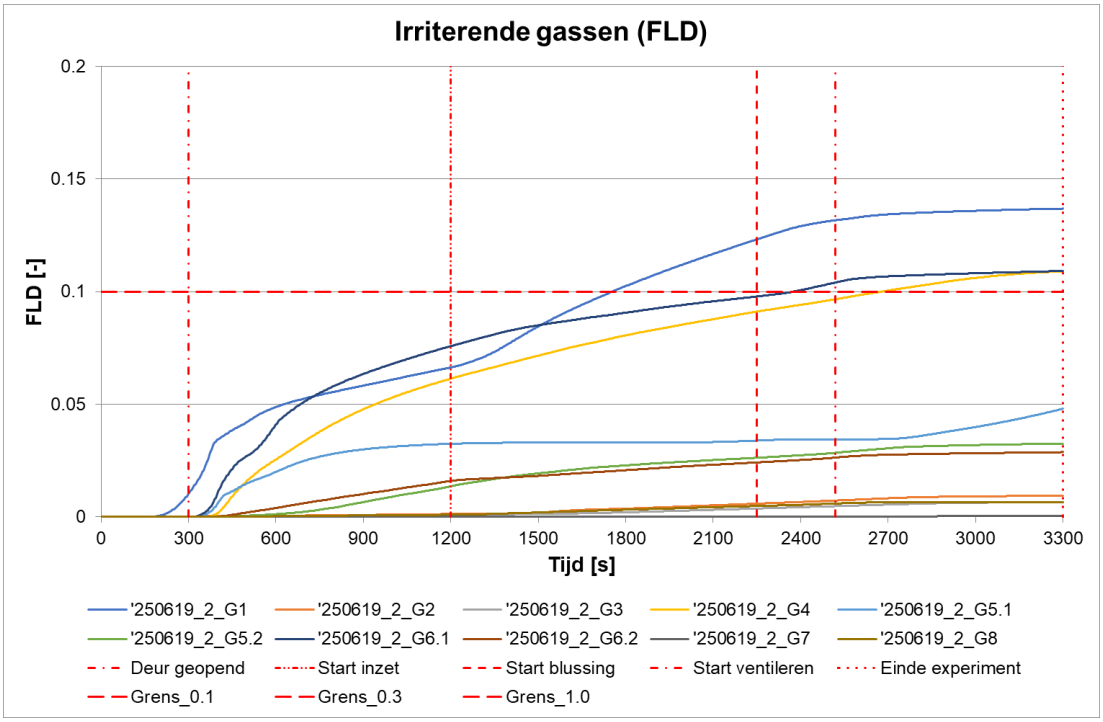

Overzicht
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (1,5 m)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (0,3 m)
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet


Overzicht
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (1,5 m)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (0,3 m)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet

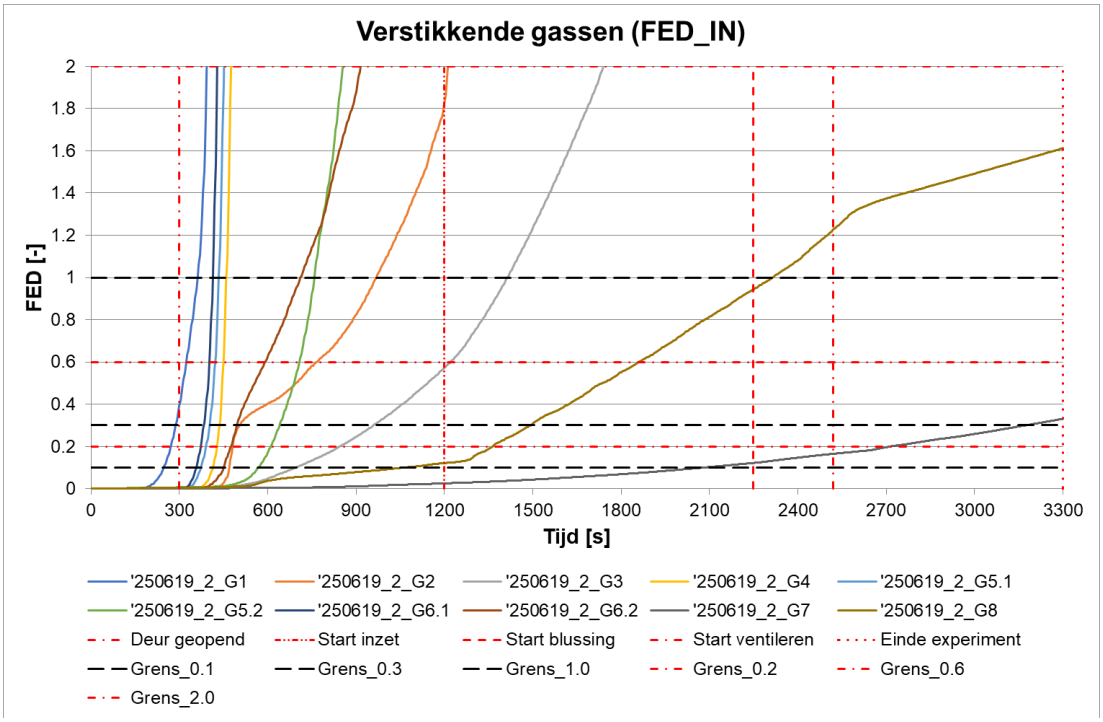
C. Deployment phase (20 - 55 minutes)

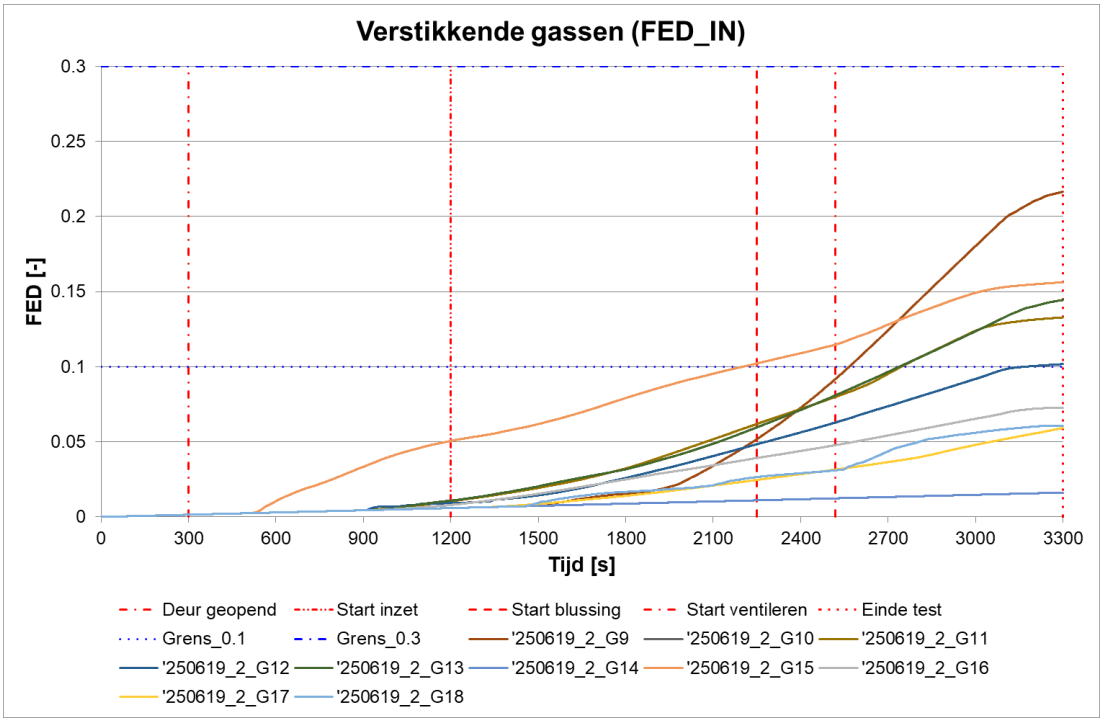
Irritant gases



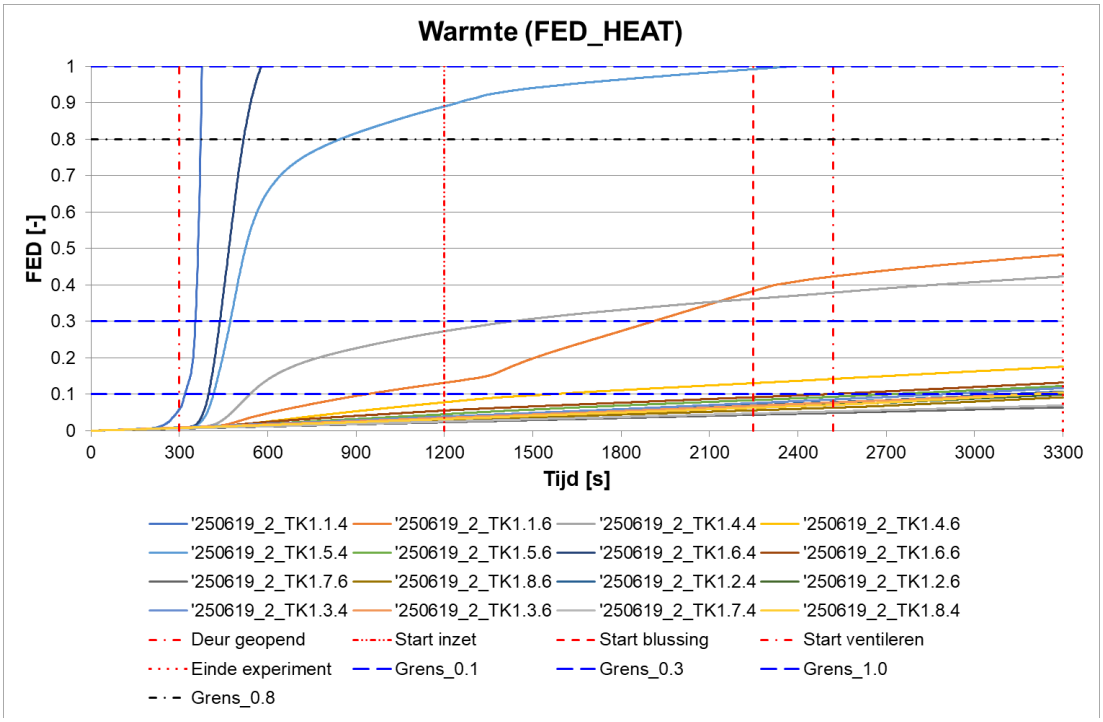


Asphyxiant gases

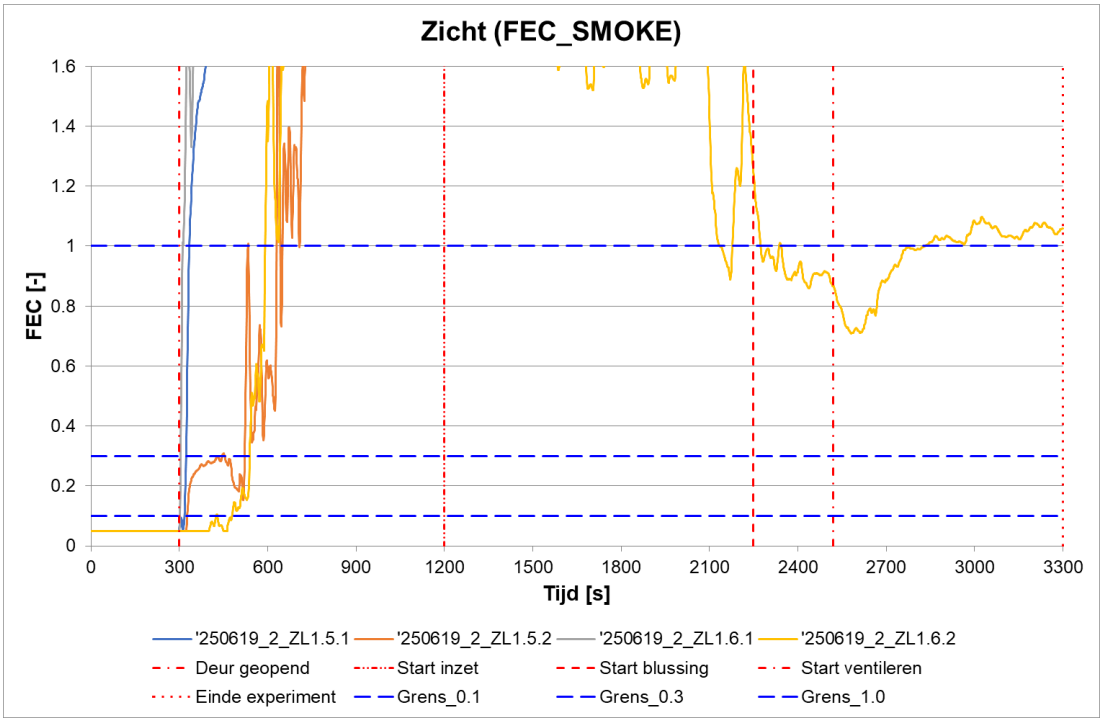




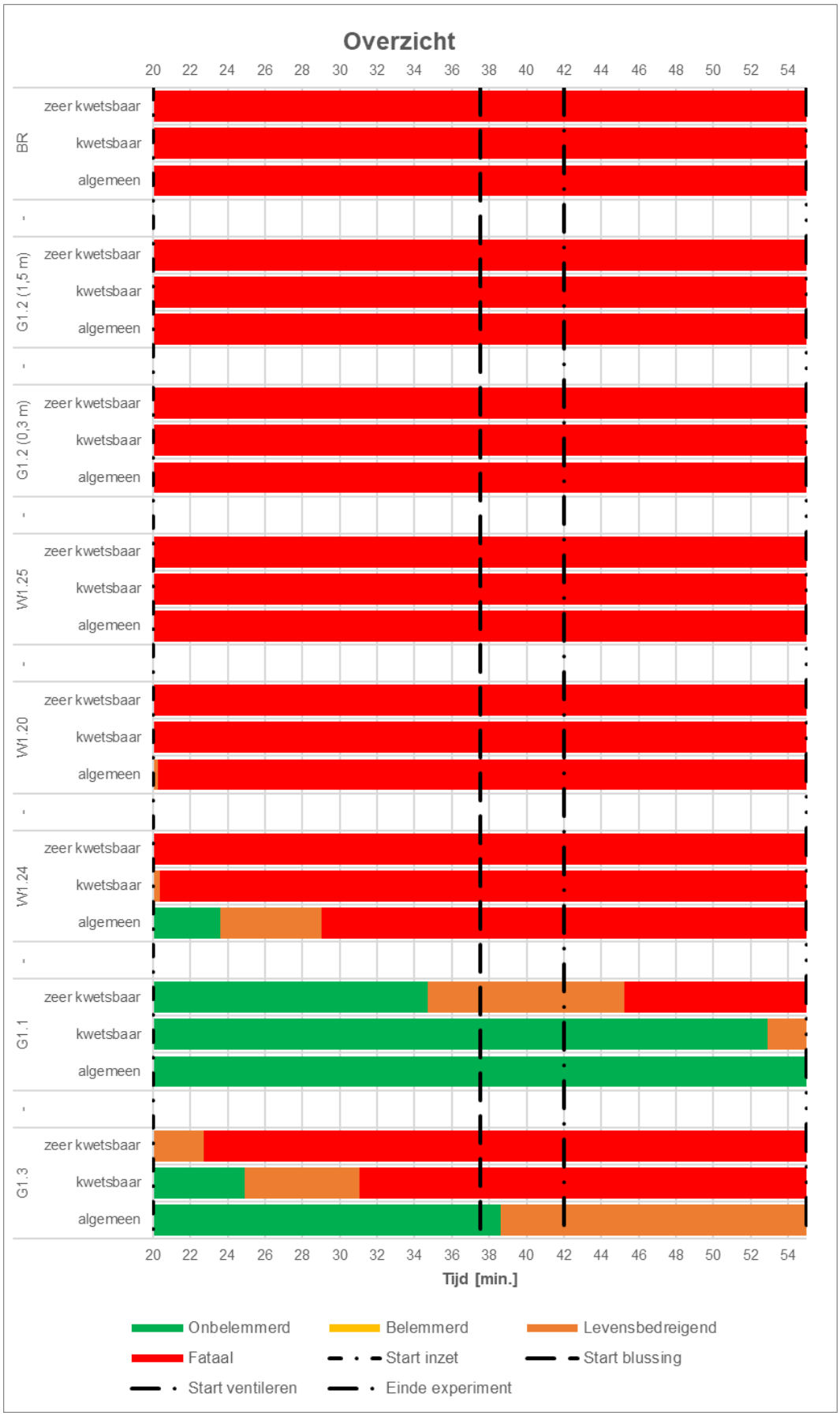
Heat



Visibility



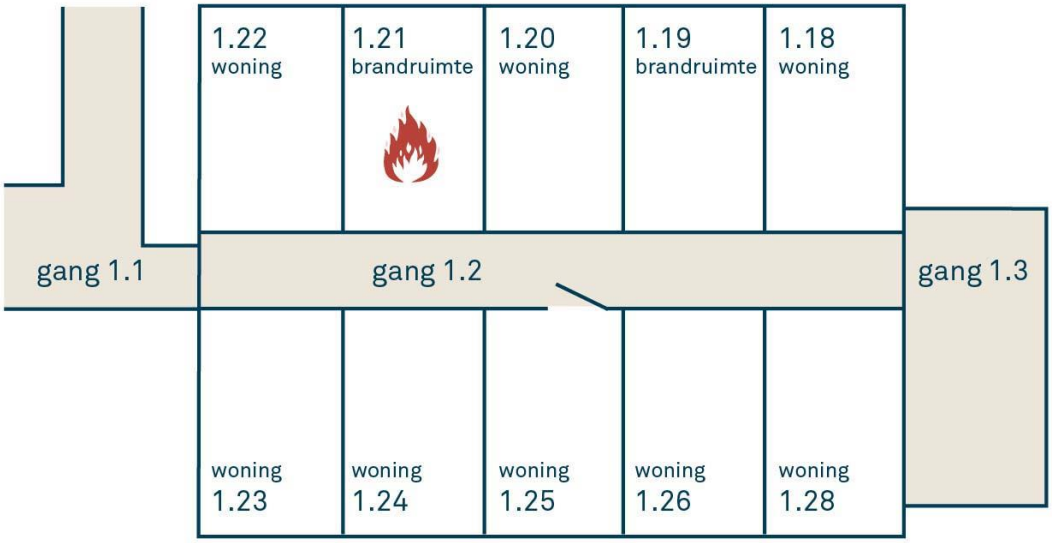
Overview


Overzicht
20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54
BR
G1.2 (1,5 m)
G1.2 (0,3 m)
W1.25
W1.20
W1.24
G1.1
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
-
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Start inzet
Start blussing
Start ventileren
Einde experiment

Test 4 (variant 1: door closed) 26-06-19

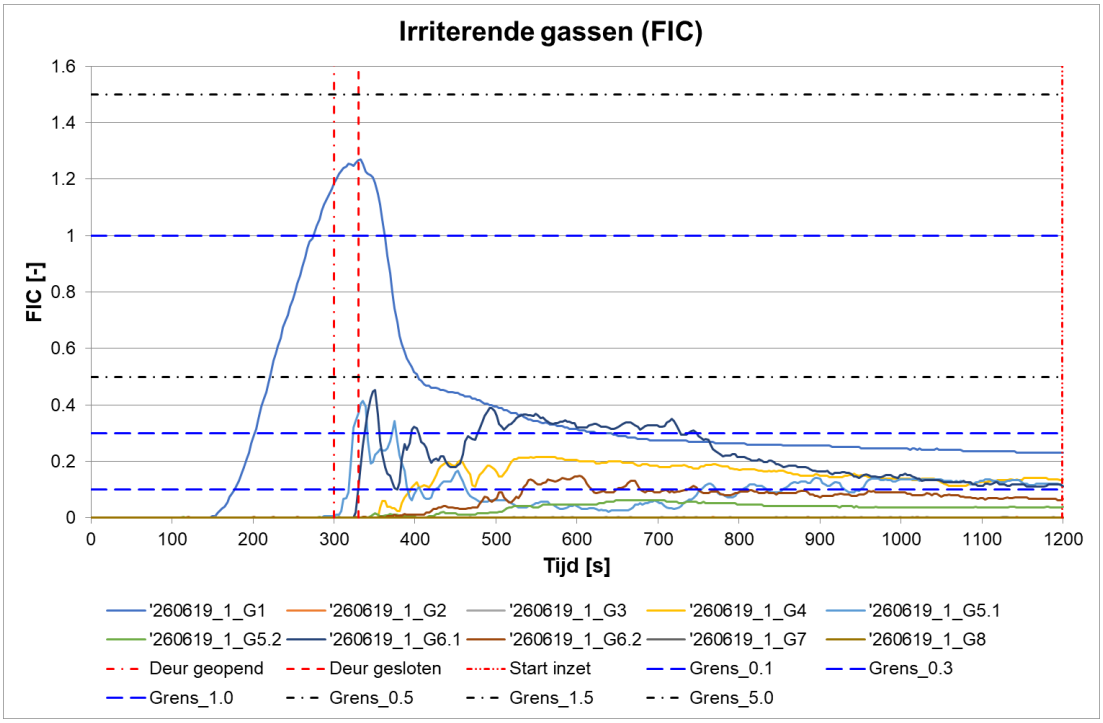
A. Description of the test

Test number	4
Date	26/06/2019
Morning / afternoon	Morning
Fire room	1.21
Door to the fire room open / closed	Closed
Fire service deployment	Defensive interior attack
Extra measures	None
Specific aspects	Measuring post 6 failed after 8 minutes. Camera A8 was not working properly.



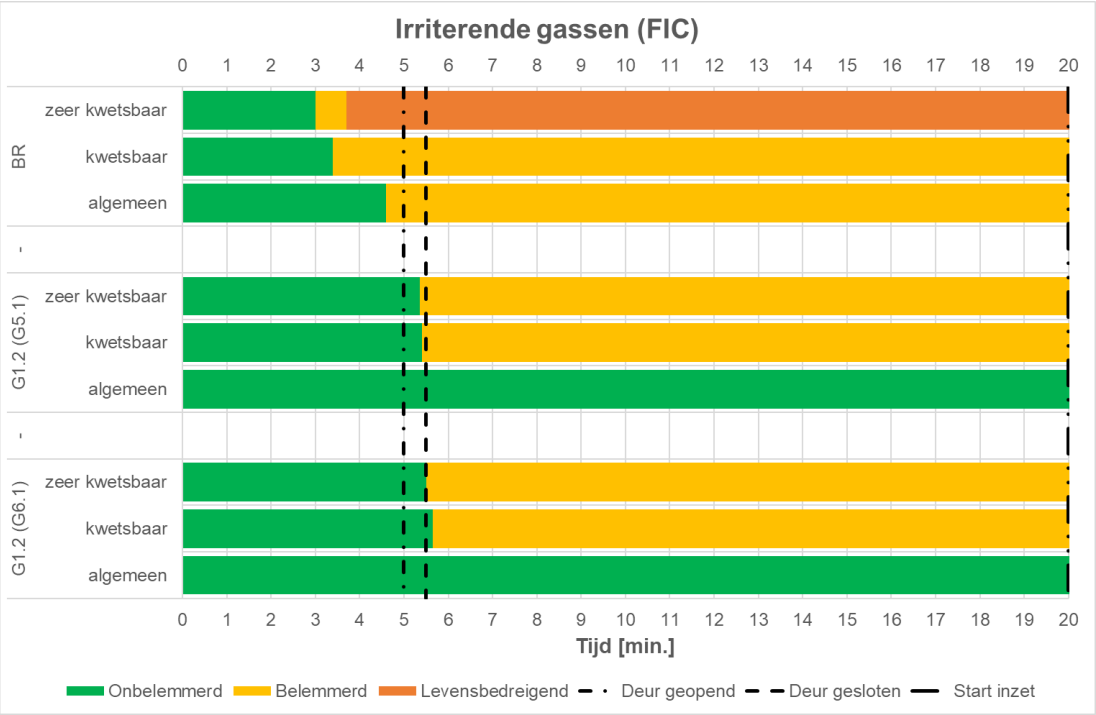
B. Escape phase (0 - 20 minutes)

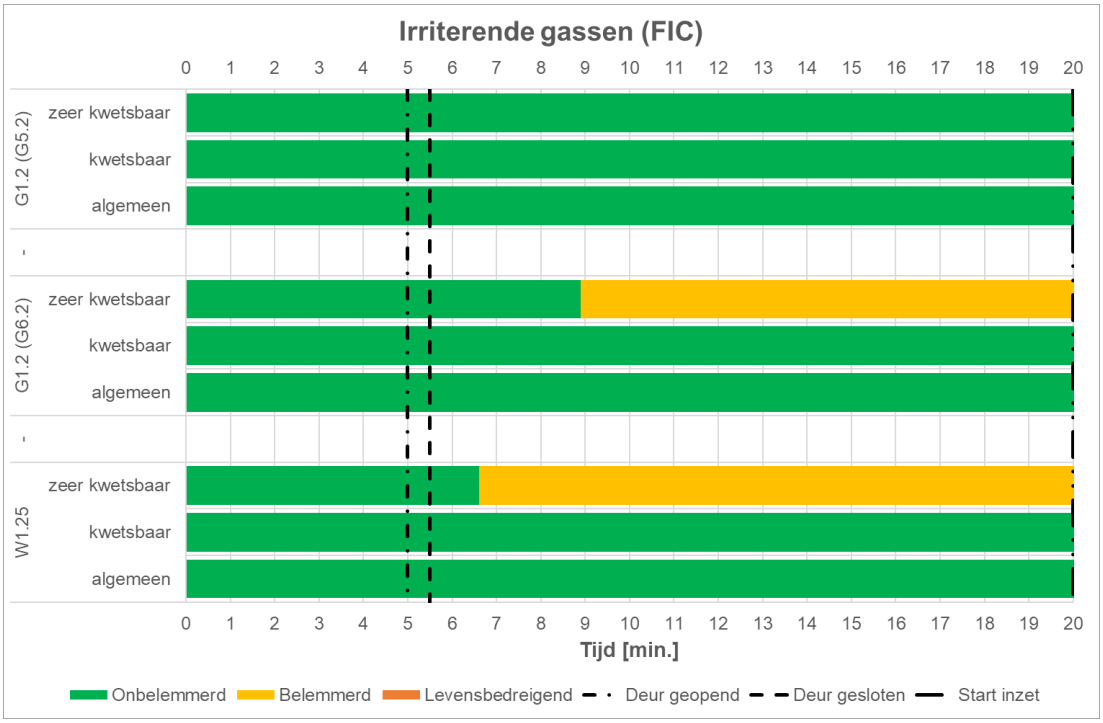
Irritant gases

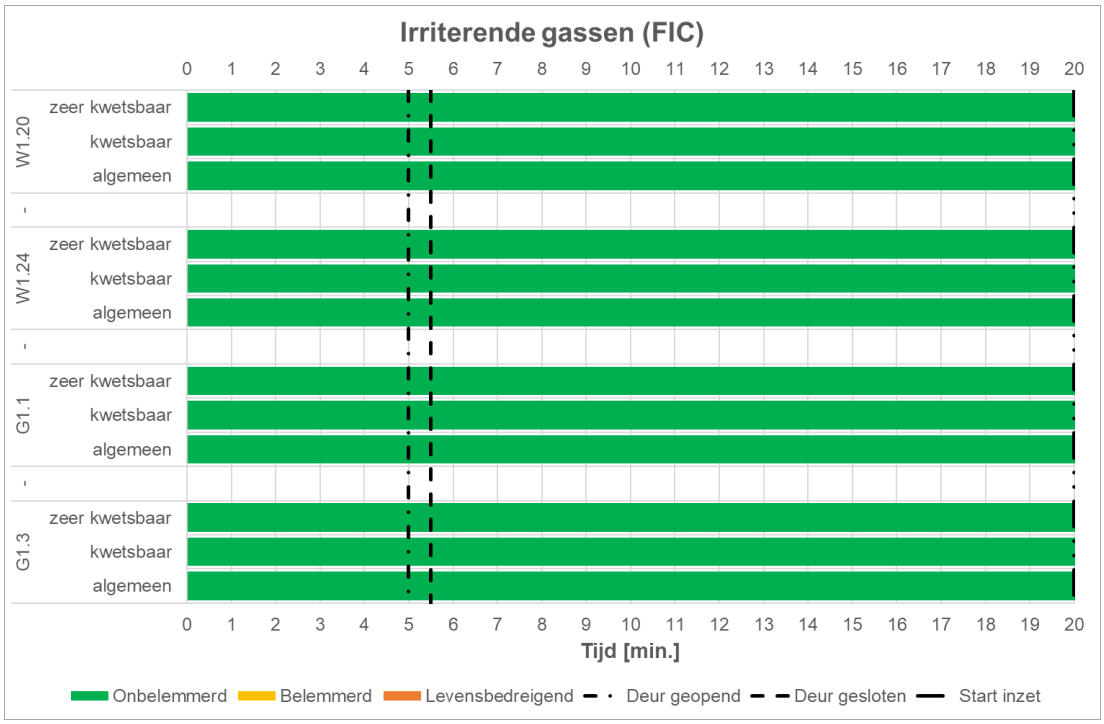


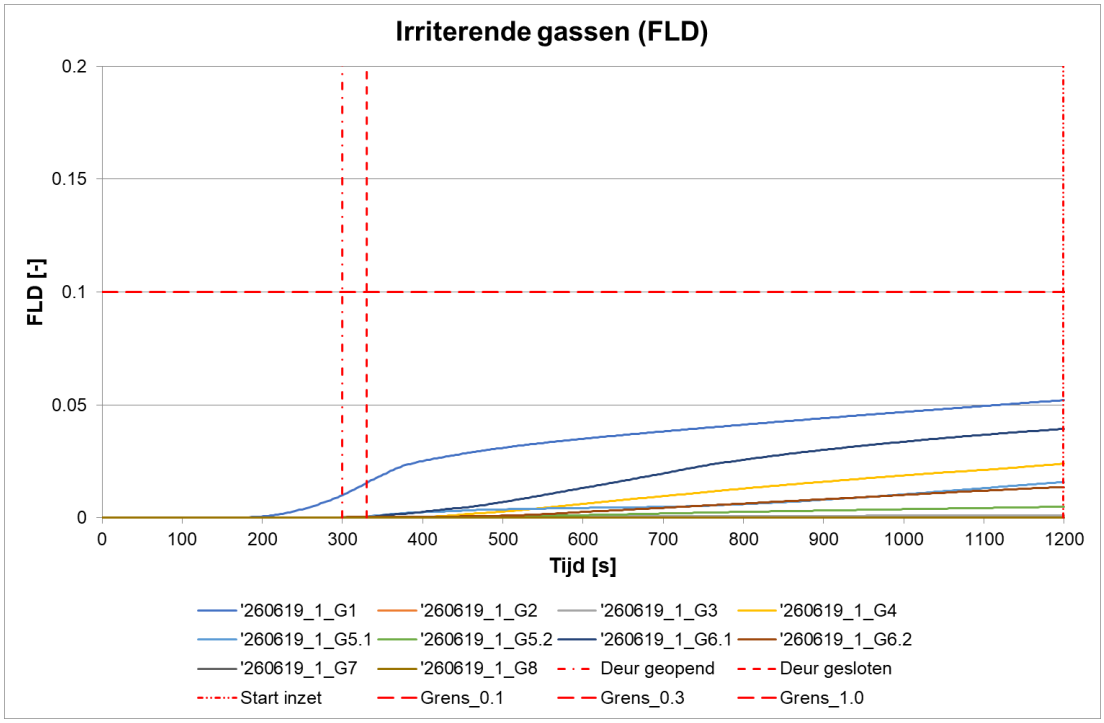
	Irritant gases (FIC)				
	Group	Threshold [-]	Safe [min.]	Impaired [min.]	Life-threatening [min.]
Fire room 1.21 G1	Highly vulnerable	0.1/0.5	3.0	3.7	> 3.7
	Vulnerable	0.3/1.5	3.4	> 55.0	-
	General	1.0/5.0	4.6	> 55.0	-
Residence 1.20 G2	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Residence 1.24 G3	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-

Residence 1.25 G4	Highly vulnerable	0.1/0.5	6.6	> 55.0	
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.5	5.4	> 55.0	-
	Vulnerable	0.3/1.5	5.4	> 55.0	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.5	5.5	> 55.0	-
	Vulnerable	0.3/1.5	5.7	> 55.0	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.5	8.9	> 55.0	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-


Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G5.1)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.1)
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Deur gesloten
Start inzet

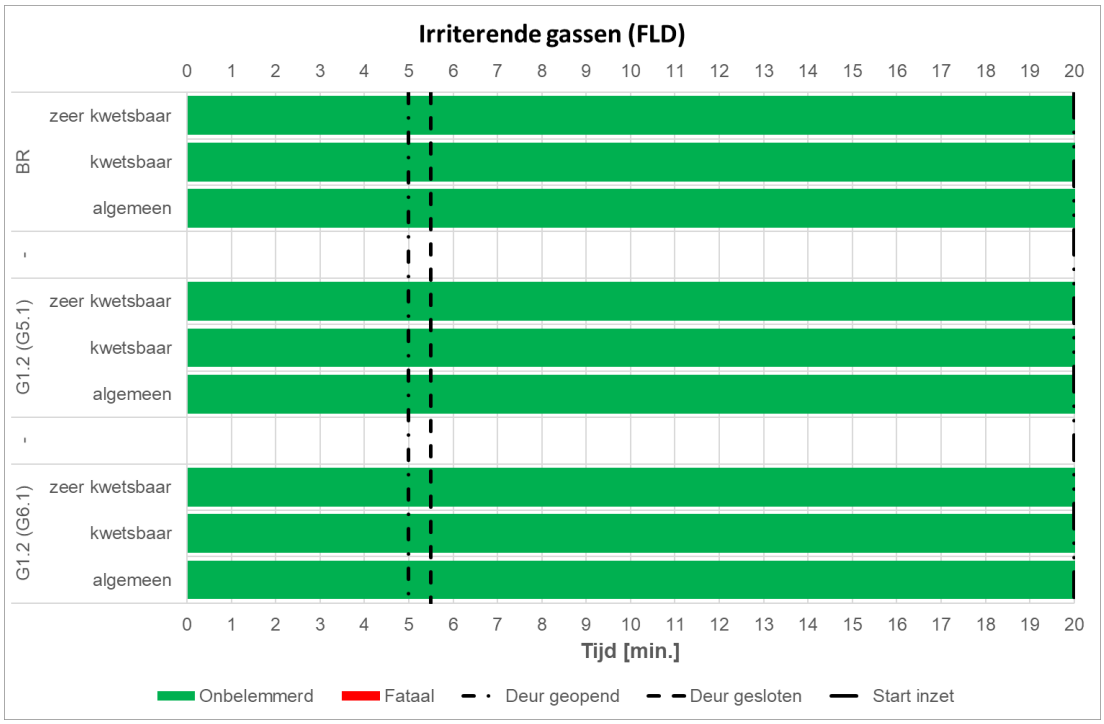

Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Deur gesloten
Start inzet


Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Deur gesloten
Start inzet

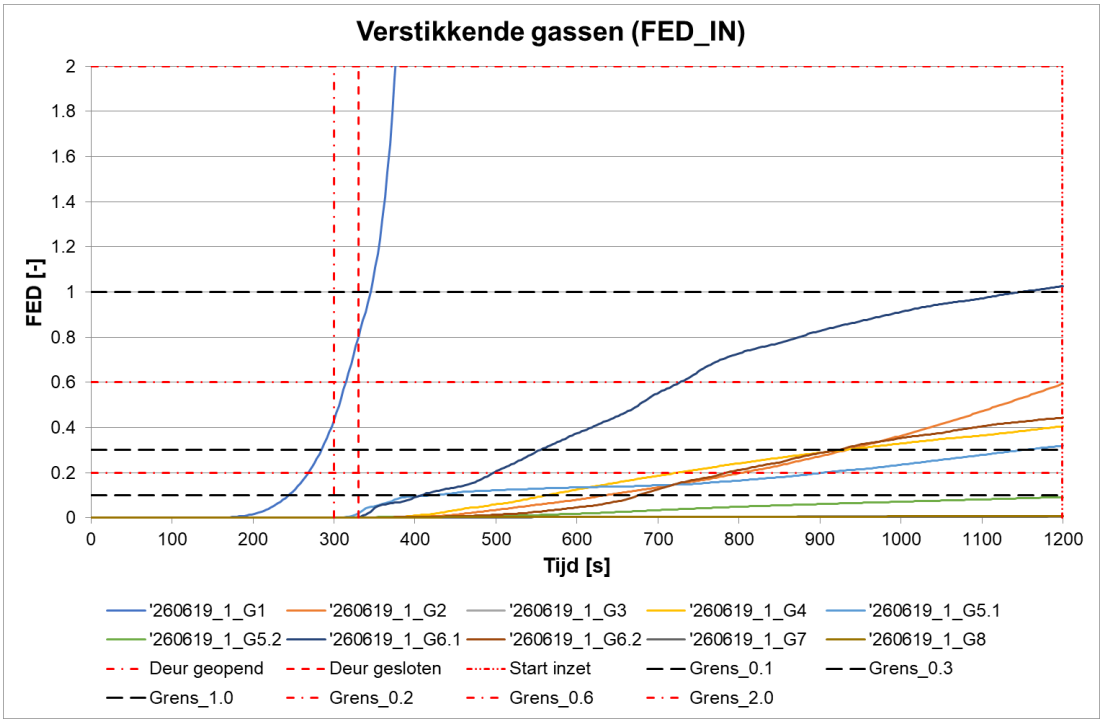

Irriterende gassen (FLD)
FLD [-]
0.2
0.15
0.1
0.05
0
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
Tijd [s]
'260619_1_G1
'260619_1_G2
'260619_1_G3
'260619_1_G4
'260619_1_G5.1
'260619_1_G5.2
'260619_1_G6.1
'260619_1_G6.2
'260619_1_G7
'260619_1_G8
Deur geopend
Deur gesloten
Start inzet
Grens_0.1
Grens_0.3
Grens_1.0

	Irritant gases (FLD)			
	Group	Threshold [-]	Safe [min.]	Impaired [min.]
Fire room 1.21 G1	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.20 G2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.24 G3	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.25 G4	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G5.1	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G5.2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G6.1	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G6.2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-

	General	1.0	> 55.0	-
Corridor 1.1 G7	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.3 G8	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-

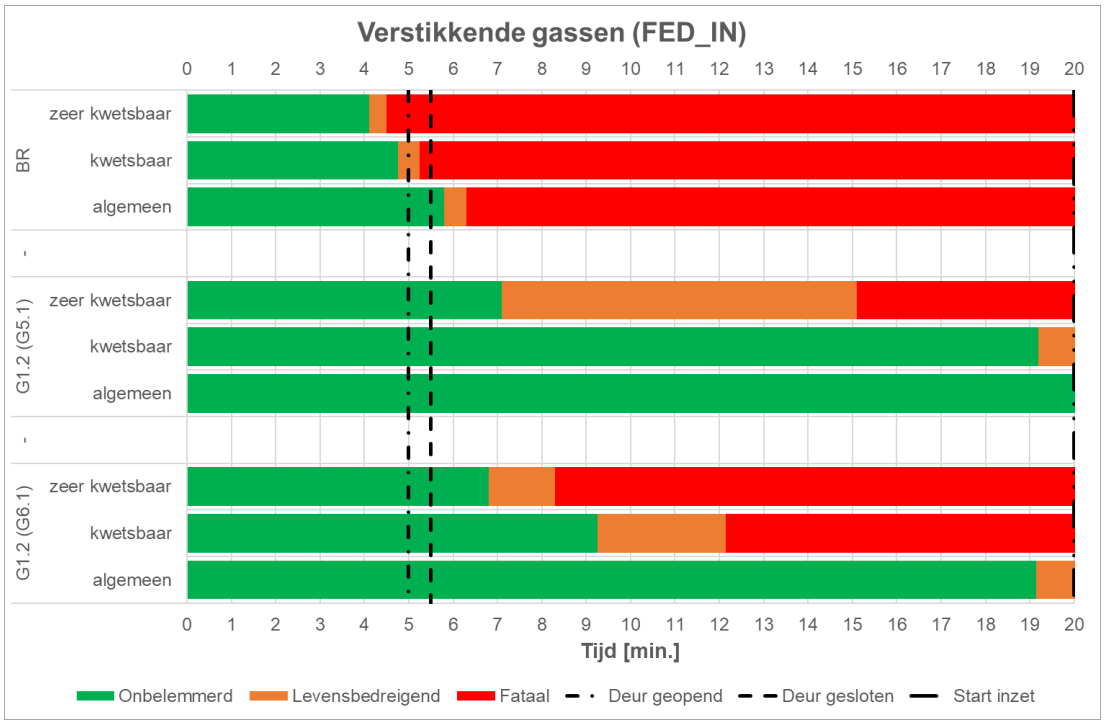


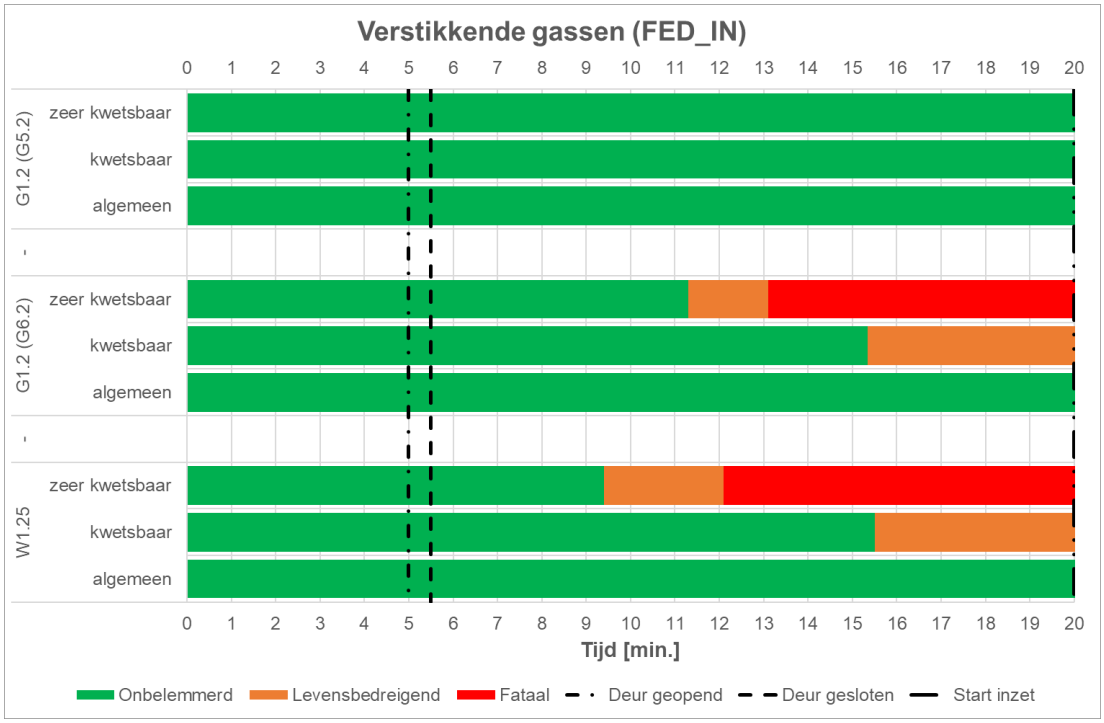
Asphyxiant gases

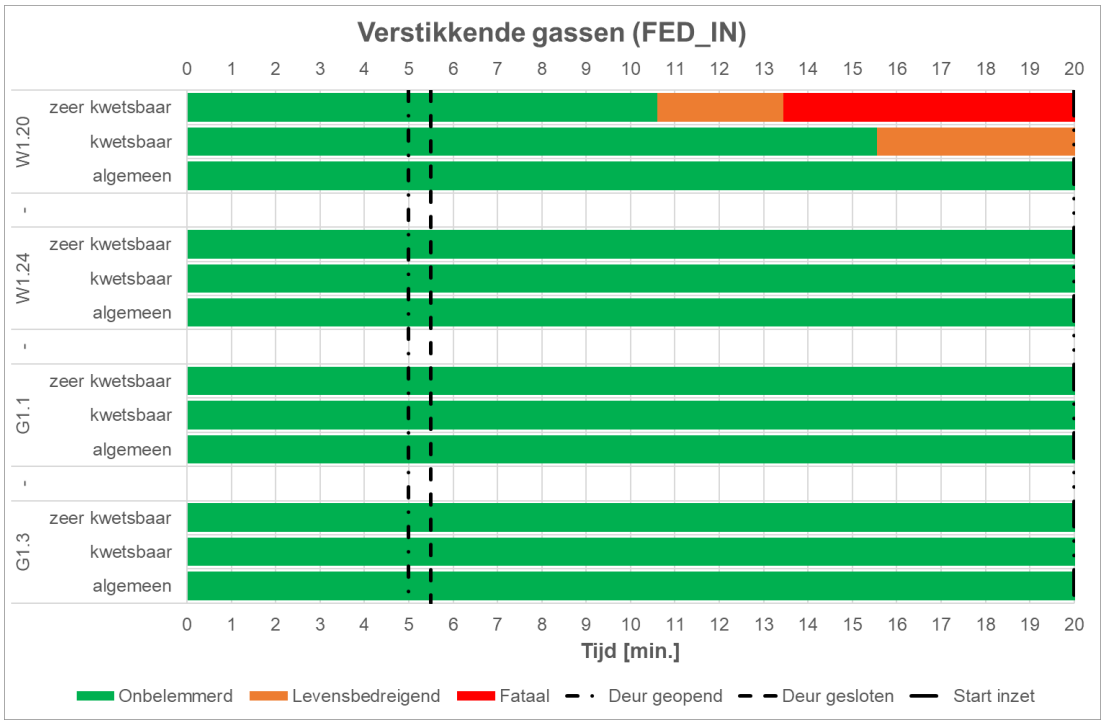


		Asphyxiant gases (FED_IN)			
	Group	Threshold [-]	Safe [min.]	Life-threatening [min.]	Fatal [min.]
Fire room 1.21 G1	Highly vulnerable	0.1/0.2	4.1	4.5	> 4.5
	Vulnerable	0.3/0.6	4.8	5.3	> 5.3
	General	1.0/2.0	5.8	6.3	> 6.3
Residence 1.20 G2	Highly vulnerable	0.1/0.2	10.6	13.5	> 13.5
	Vulnerable	0.3/0.6	15.6	20.1	> 20.1
	General	1.0/2.0	24.8	34.5	> 34.5
Residence 1.24 G3	Highly vulnerable	0.1/0.2	38.6	42.0	> 42.0
	Vulnerable	0.3/0.6	43.9	> 55.0	-
	General	1.0/2.0	> 55.0	-	-
Residence 1.25	Highly vulnerable	0.1/0.2	9.4	12.1	> 12.1

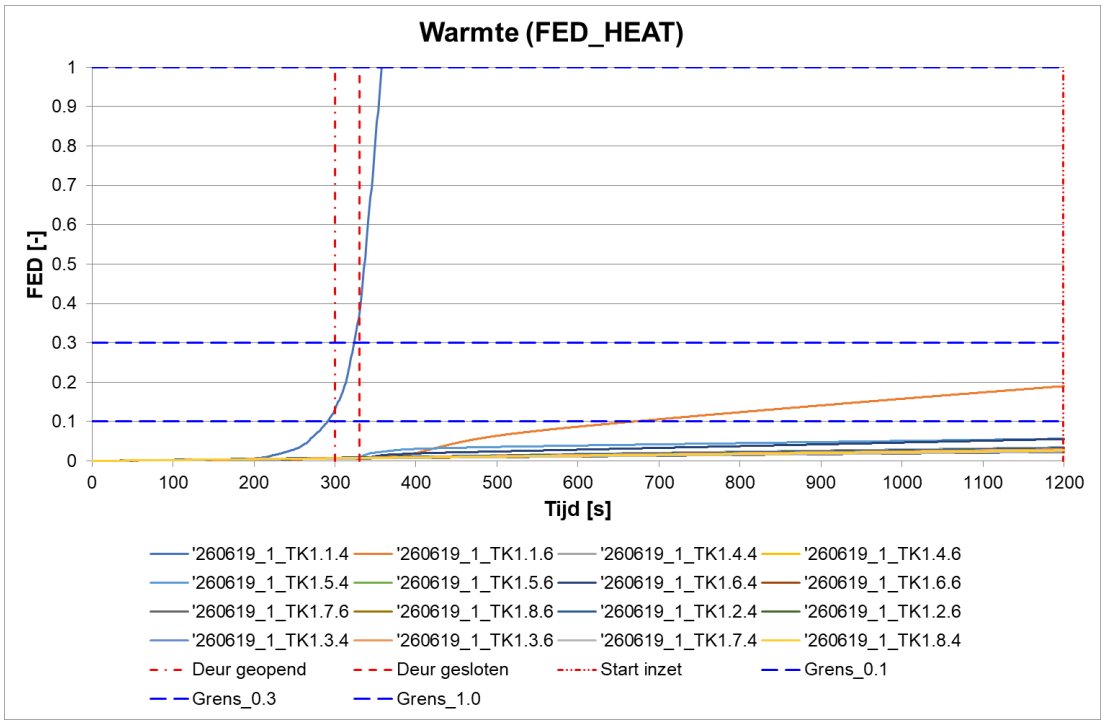
G4	Vulnerable	0.3/0.6	15.5	27.6	> 27.6
	General	1.0/2.0	38.5	47.4	> 47.4
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.2	7.1	15.1	> 15.1
	Vulnerable	0.3/0.6	19.2	34.2	> 34.2
	General	1.0/2.0	38.6	> 55.0	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.2	21.2	27.2	> 27.2
	Vulnerable	0.3/0.6	32.5	41.0	> 41.0
	General	1.0/2.0	> 55.0	-	-
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.2	6.8	8.3	> 8.3
	Vulnerable	0.3/0.6	9.3	12.2	> 12.2
	General	1.0/2.0	19.2	42.9	> 42.9
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.2	11.3	13.1	> 13.1
	Vulnerable	0.3/0.6	15.4	34.8	> 34.8
	General	1.0/2.0	38.8	> 55.0	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.2	50.6	54.1	> 54.1
	Vulnerable	0.3/0.6	> 55.0	-	-
	General	1.0/2.0	> 55.0	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.2	> 55.0	-	-
	Vulnerable	0.3/0.6	> 55.0	-	-
	General	1.0/2.0	> 55.0	-	-


Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G5.1)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.1)
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet


Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

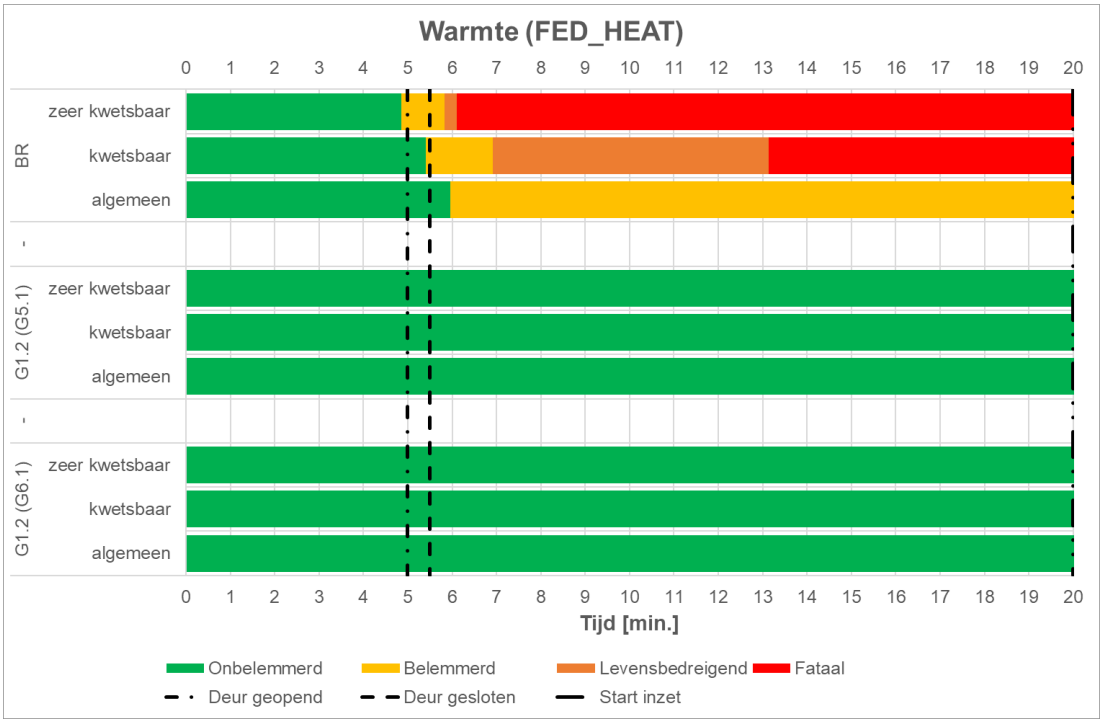

Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

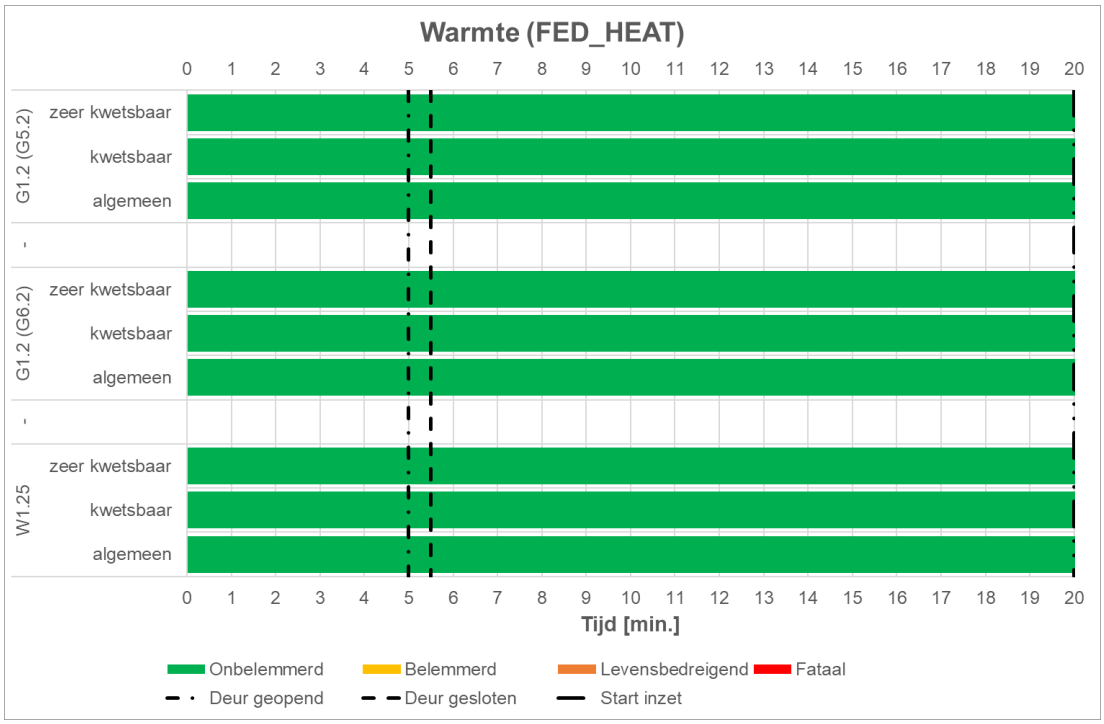
Heat

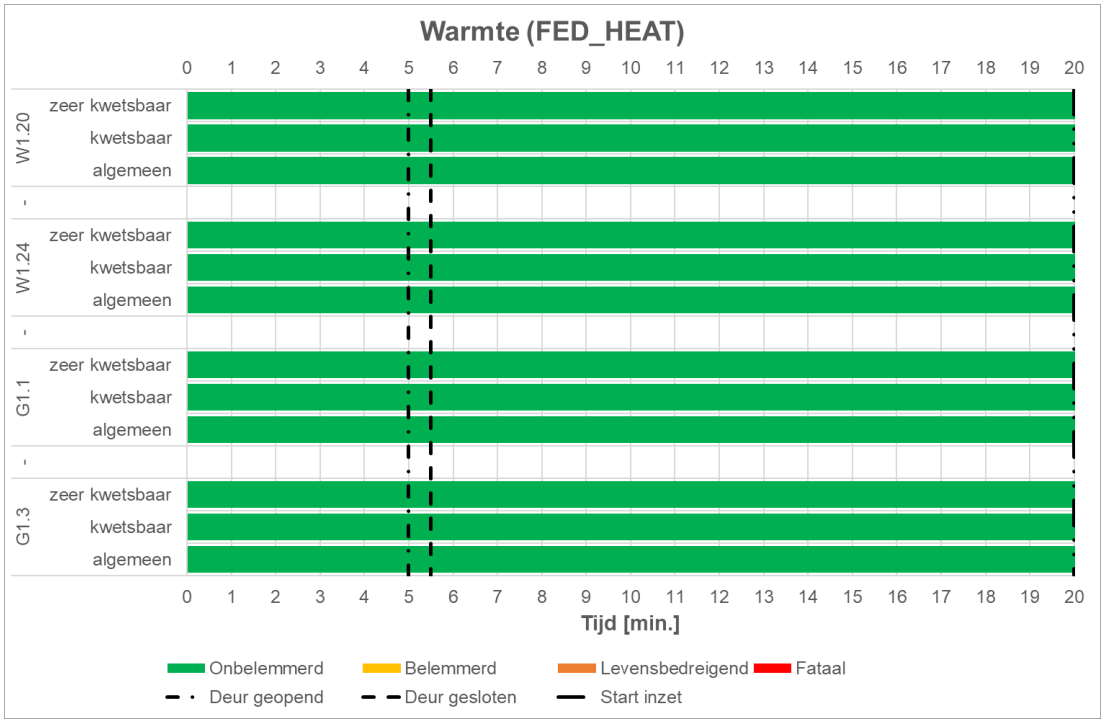

Warmte (FED_HEAT)
FED [-]
0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
Tijd [s]
'260619_1_TK1.1.4
'260619_1_TK1.1.6
'260619_1_TK1.4.4
'260619_1_TK1.4.6
'260619_1_TK1.5.4
'260619_1_TK1.5.6
'260619_1_TK1.6.4
'260619_1_TK1.6.6
'260619_1_TK1.7.6
'260619_1_TK1.8.6
'260619_1_TK1.2.4
'260619_1_TK1.2.6
'260619_1_TK1.3.4
'260619_1_TK1.3.6
'260619_1_TK1.7.4
'260619_1_TK1.8.4
Deur geopend
Deur gesloten
Start inzet
Grens_0.1
Grens_0.3
Grens_1.0

Heat (FED_HEAT)						
	Group	Threshold [-]	Safe [min.]	Impaired [min.]	Life-threatening [min.]	Fatal [min.]
Fire room 1.21 G1	Highly vulnerable	0.1/0.8/1.2	4.9	5.8	6.1	> 6.1
	Vulnerable	0.3/2.4/12.0	5.4	6.9	13.1	> 13.1
	General	1.0/8.0/12.0	6.0	> 55.0	-	-
Residence 1.20 G2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Residence 1.24 G3	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Residence 1.25 G4	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.8/1.2	45.9	> 55.0	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2	Highly vulnerable	0.1/0.8/1.2	36.4	> 55.0	-	-

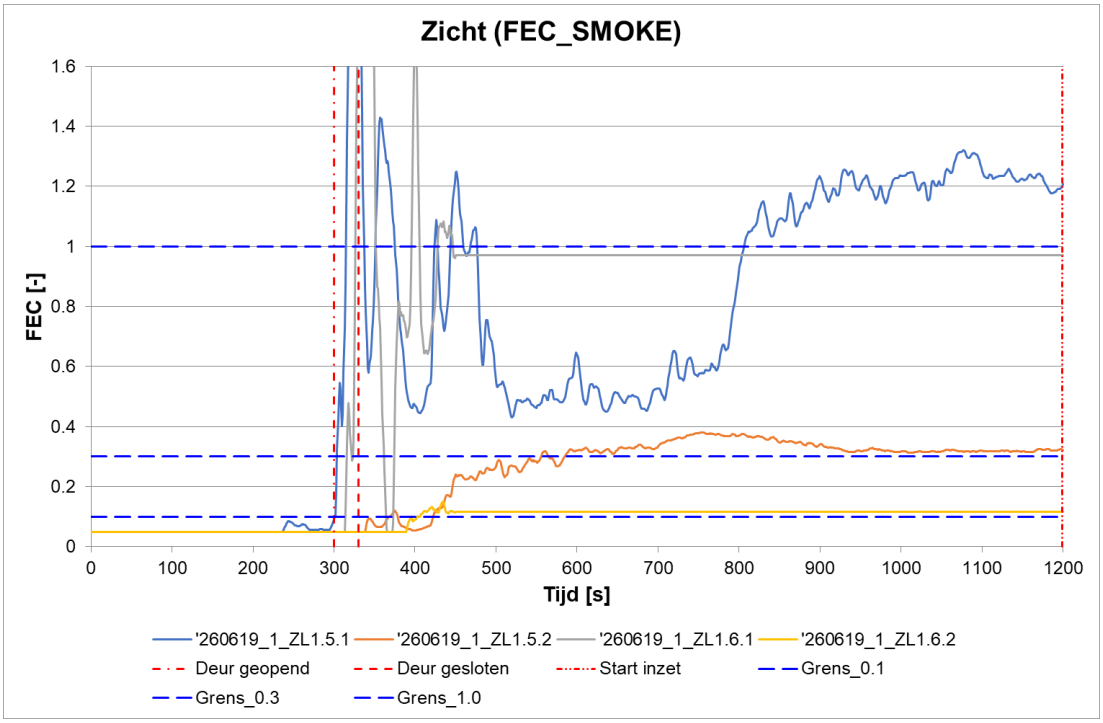
G6.1	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-




Warmte (FED_HEAT)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

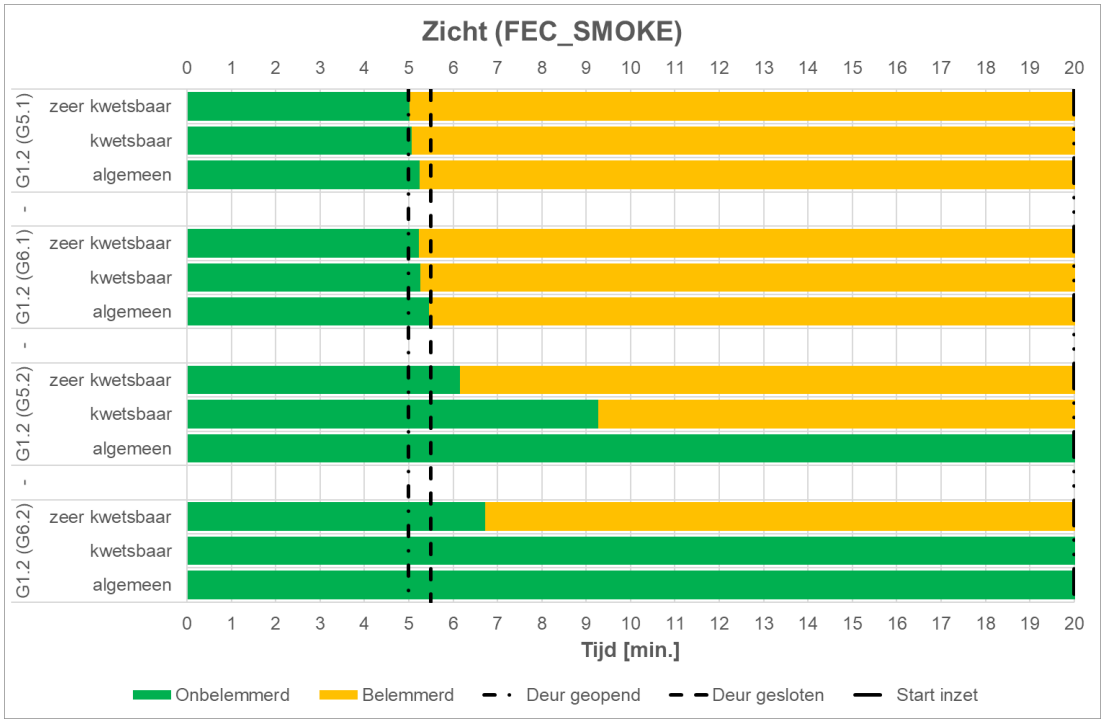

Warmte (FED_HEAT)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

Visibility

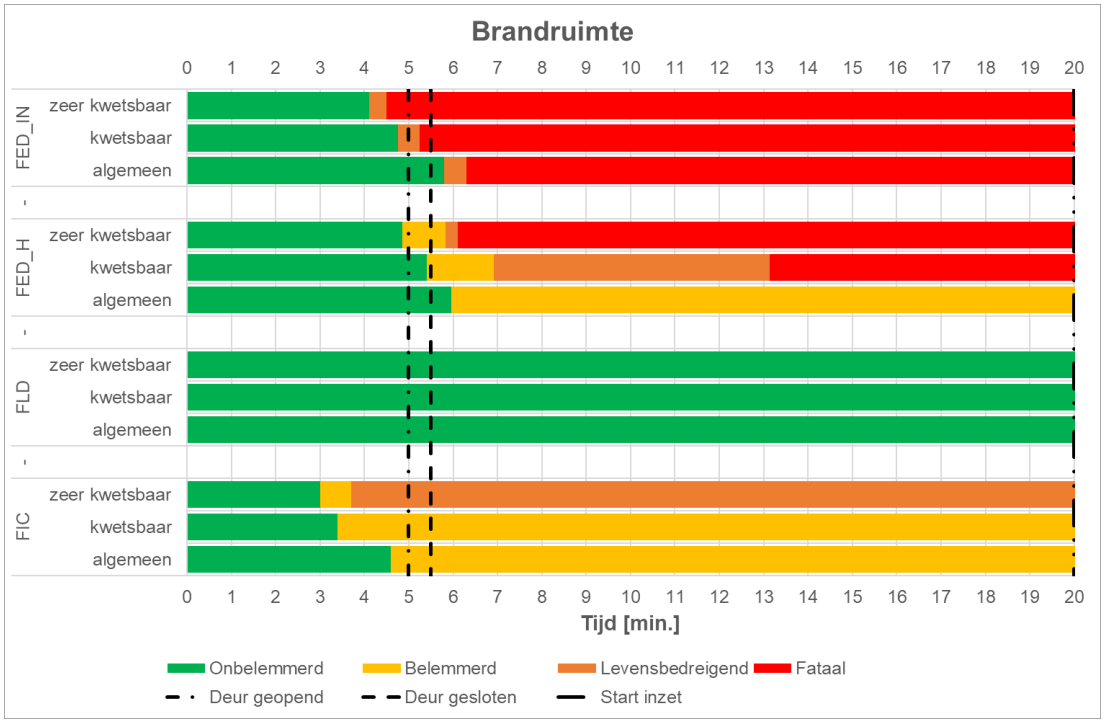


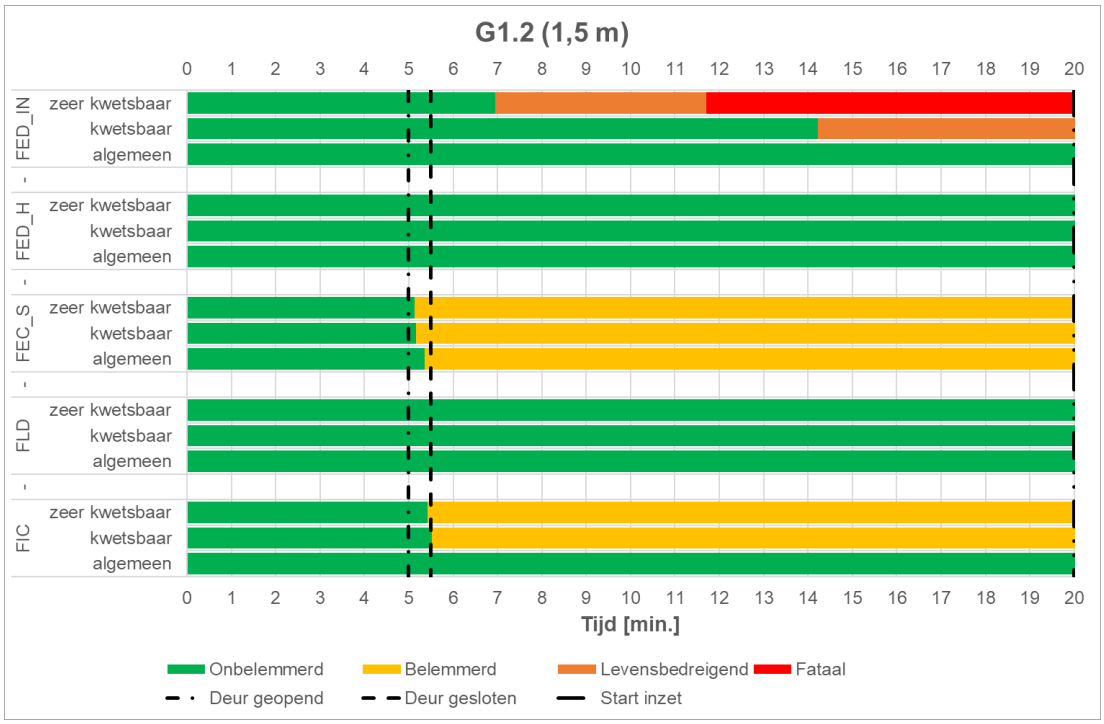
Visibility (FEC_SMOKE)				
	Group	Threshold [-]	Safe [min.]	Impaired [min.]
Corridor 1.2 G5.1	Highly vulnerable	0.1	5.0	> 5.0
	Vulnerable	0.3	5.1	> 5.1
	General	1.0	5.3	> 5.3
Corridor 1.2 G5.2	Highly vulnerable	0.1	6.2	> 6.2
	Vulnerable	0.3	9.3	> 9.3
	General	1.0	> 55.0	-
Corridor 1.2 G6.1	Highly vulnerable	0.1	5.2	> 5.2
	Vulnerable	0.3	5.3	> 5.3
	General	1.0	5.5	> 5.5

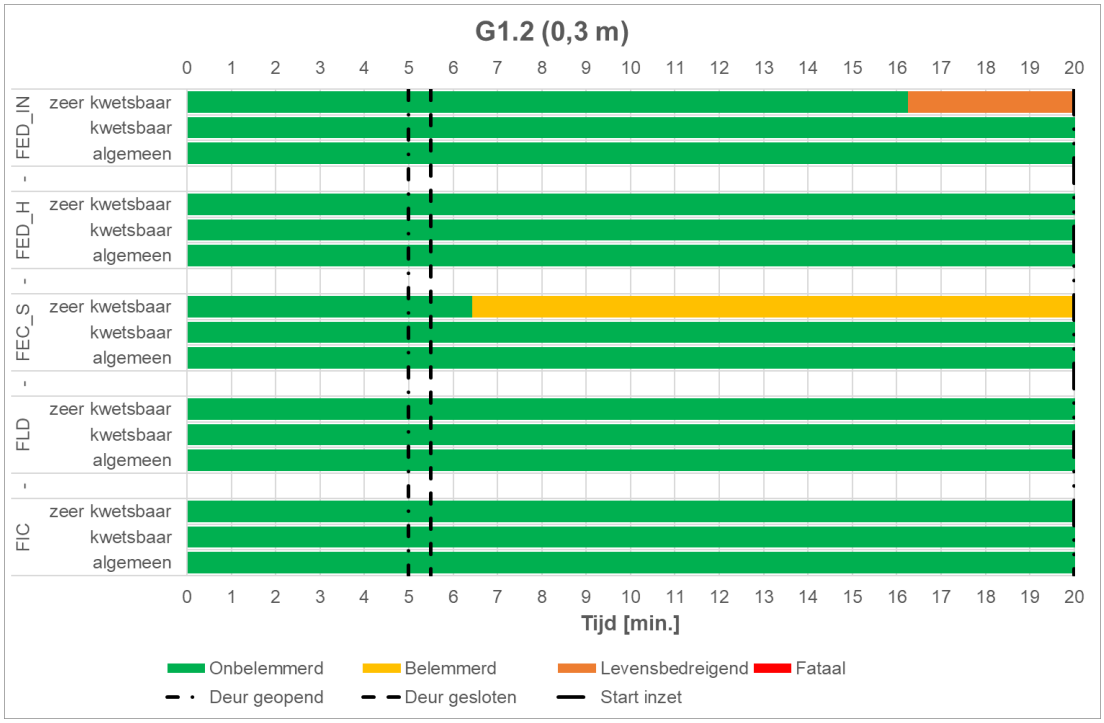
Corridor 1.2 G6.2	Highly vulnerable	0.1	6.7	> 6.7
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-



Overview

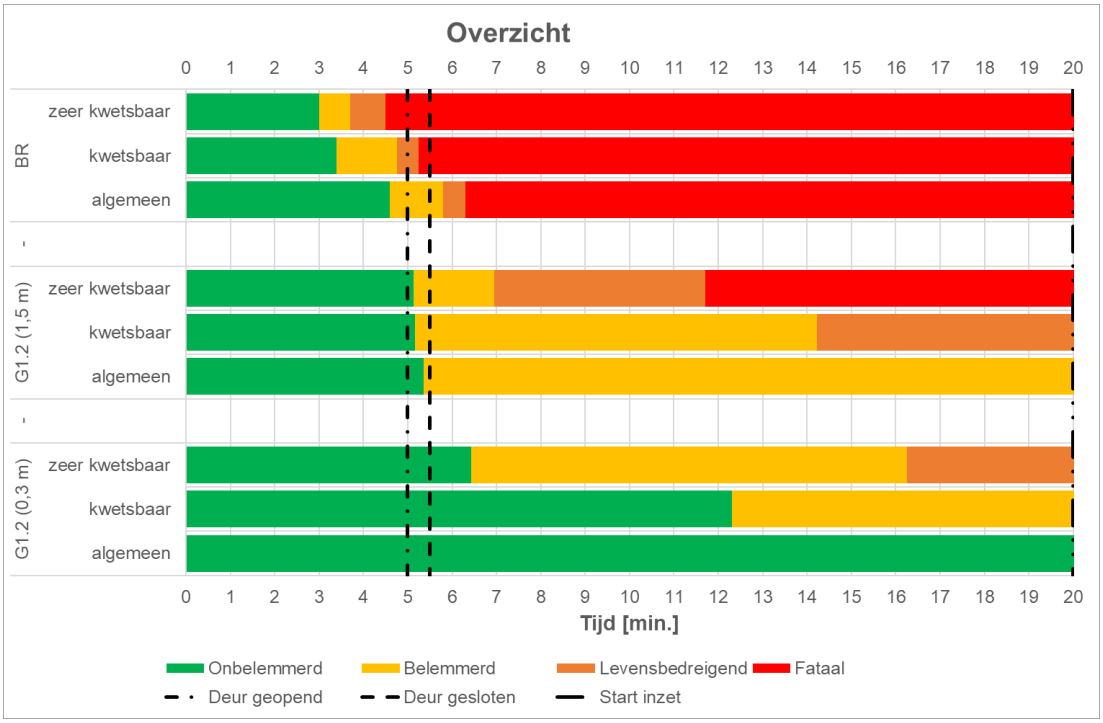


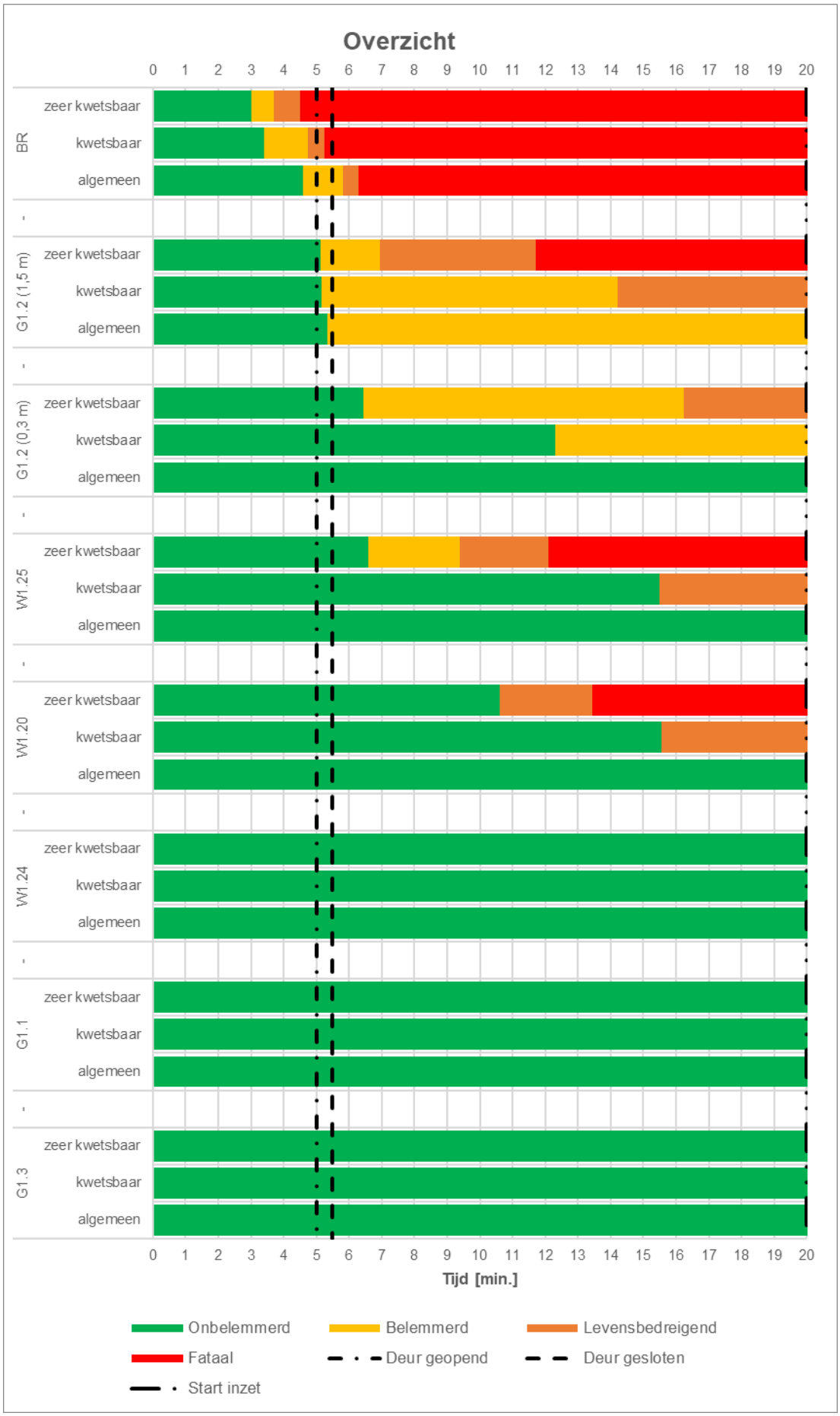

G1.2 (1,5 m)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
FED_IN
FED_H
FEC_S
FLD
FIC
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet


G1.2 (0,3 m)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
FED_IN
FED_H
FEC_S
FLD
FIC
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

	Overview	Escape	Survivability		
	Group	Safe [min.]	Impaired [min.]	Life-threatening [min.]	Fatal [min.]
Fire room 1.21 G1	Highly vulnerable	3.0	3.7	4.5	> 4.5
	Vulnerable	3.4	4.8	5.3	> 5.3
	General	4.6	5.8	6.3	> 6.3
Residence 1.20 G2	Highly vulnerable	10.6	10.6	13.5	> 13.5
	Vulnerable	15.6	15.6	20.1	> 20.1
	General	24.8	24.8	34.5	> 34.5
Residence 1.24 G3	Highly vulnerable	38.6	38.6	42.0	> 42.0
	Vulnerable	43.9	43.9	> 55.0	-
	General	> 55.0	-	-	-
Residence 1.25 G4	Highly vulnerable	6.6	9.4	12.1	> 12.1
	Vulnerable	15.5	15.5	27.6	> 27.6
	General	38.5	38.5	47.4	> 47.4
Corridor 1.2 G5.1	Highly vulnerable	5.0	7.1	15.1	> 15.1
	Vulnerable	5.1	19.2	34.2	> 34.2
	General	5.3	38.6	> 55.0	-
Corridor 1.2 G5.2	Highly vulnerable	6.2	21.2	27.2	> 27.2
	Vulnerable	9.3	32.5	41.0	> 41.0
	General	> 55.0	-	-	-
Corridor 1.2 G6.1	Highly vulnerable	5.2	6.8	8.3	> 8.3
	Vulnerable	5.3	9.3	12.2	> 12.2
	General	5.5	19.2	42.9	> 42.9
Corridor 1.2	Highly vulnerable	6.7	11.3	13.1	> 13.1

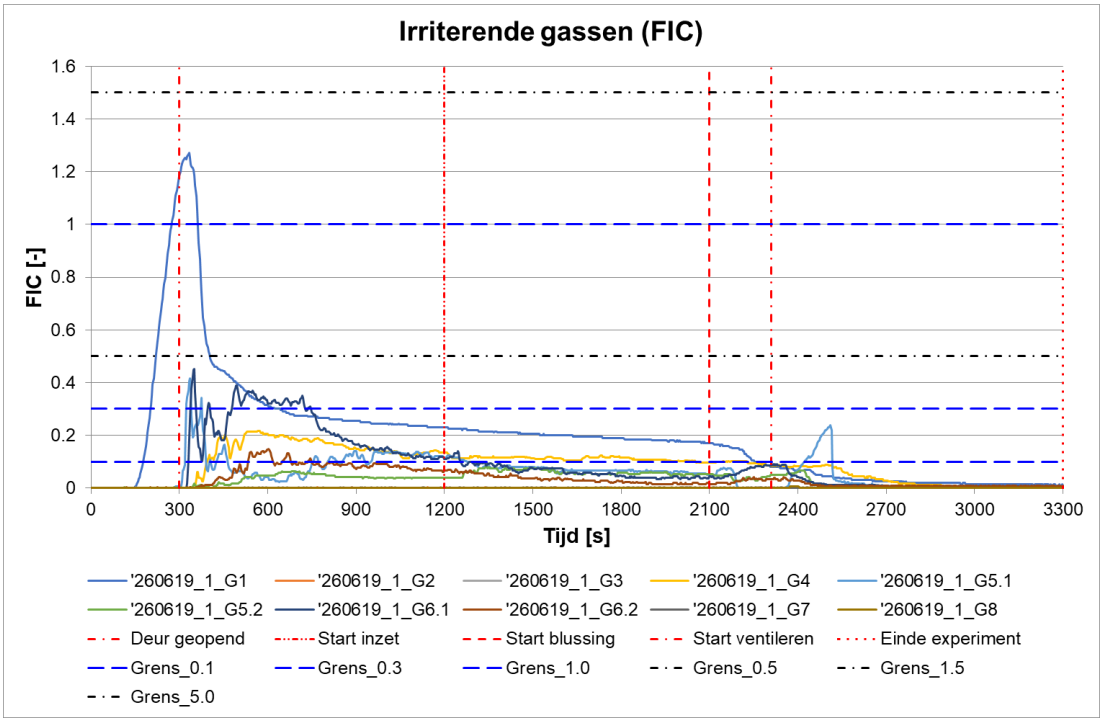
G6.2	Vulnerable	15.4	15.4	34.8	> 34.8
	General	38.8	38.8	> 55.0	-
Corridor 1.1 G7	Highly vulnerable	50.6	50.6	54.1	> 54.1
	Vulnerable	> 55.0	-	-	-
	General	> 55.0	-	-	-
Corridor 1.3 G8	Highly vulnerable	> 55.0	-	-	-
	Vulnerable	> 55.0	-	-	-
	General	> 55.0	-	-	-

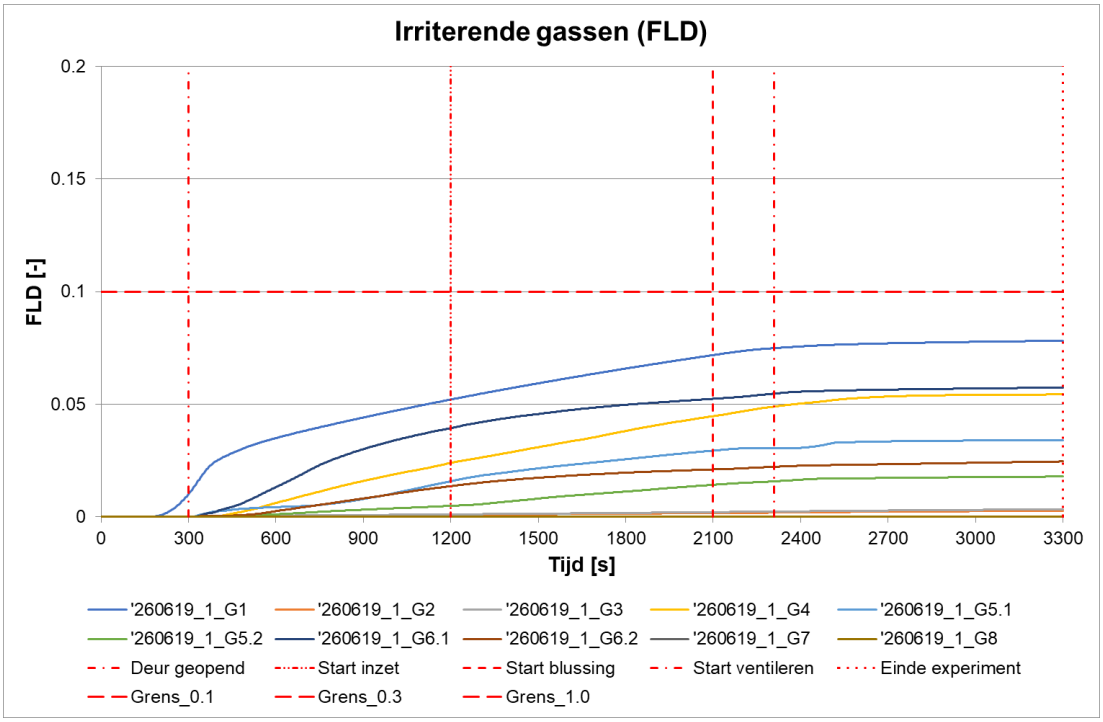



Overzicht
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (1,5 m)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (0,3 m)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

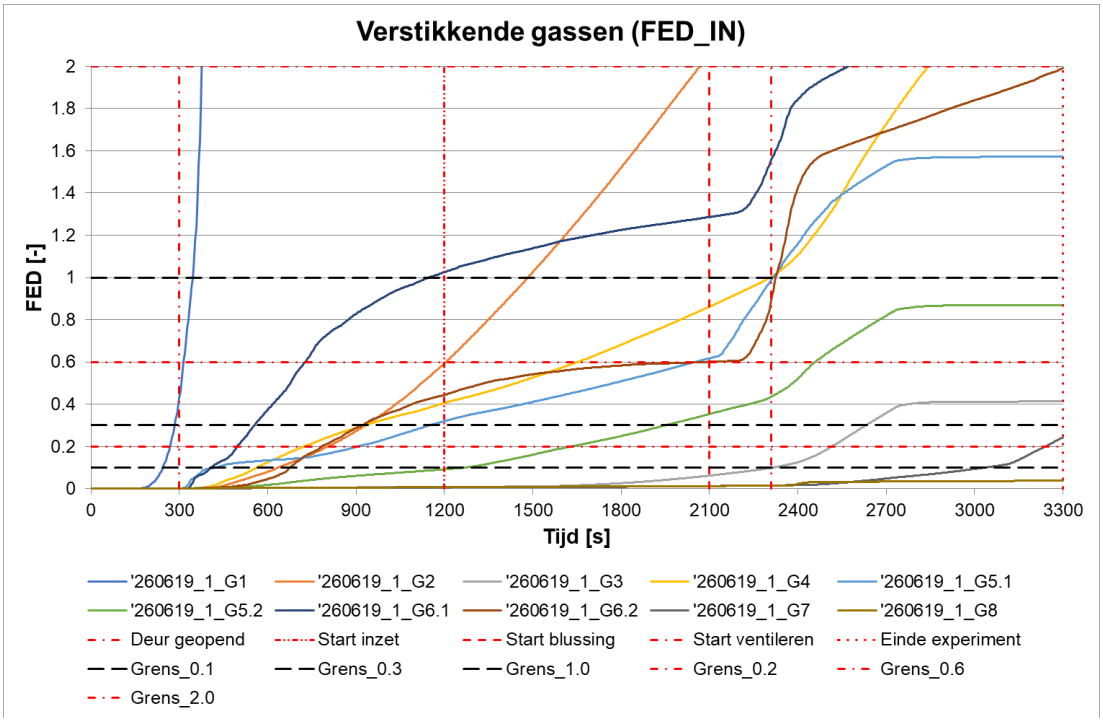
C. Deployment phase (20 - 55 minutes)

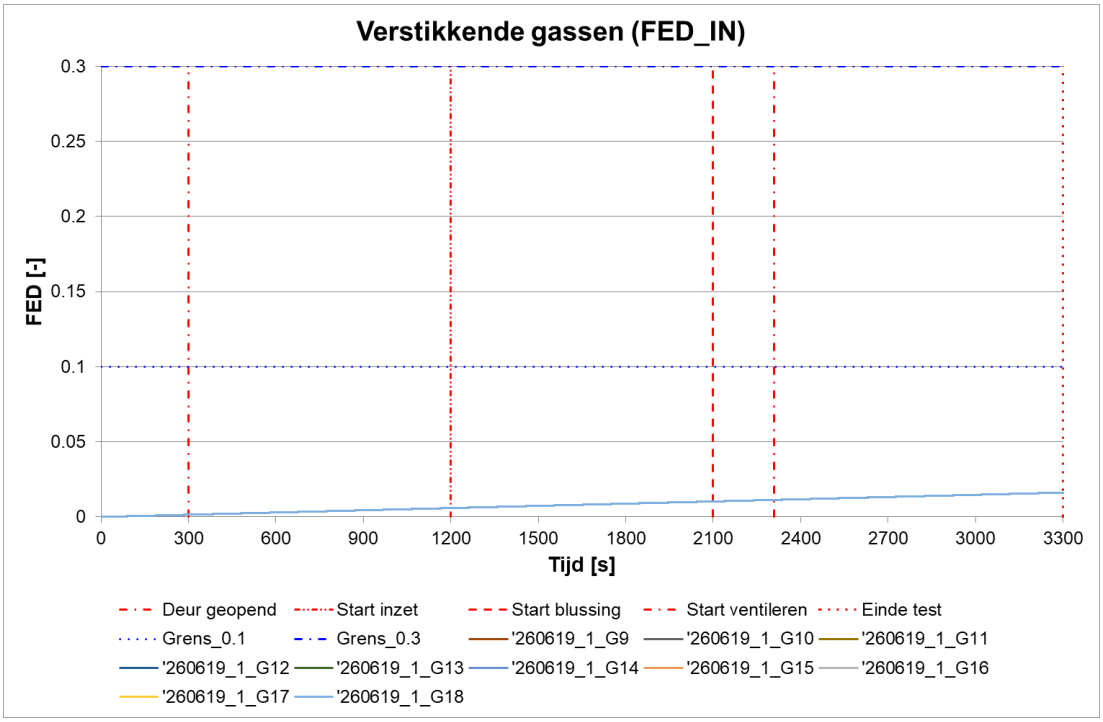
Irritant gases



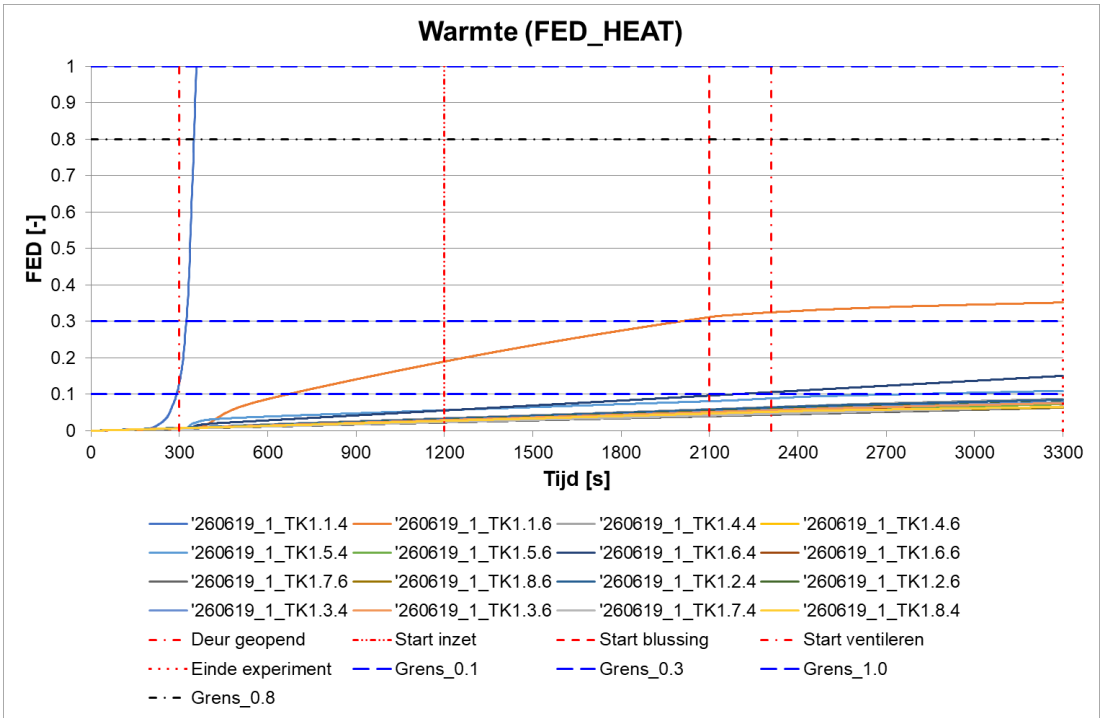


Asphyxiant gases

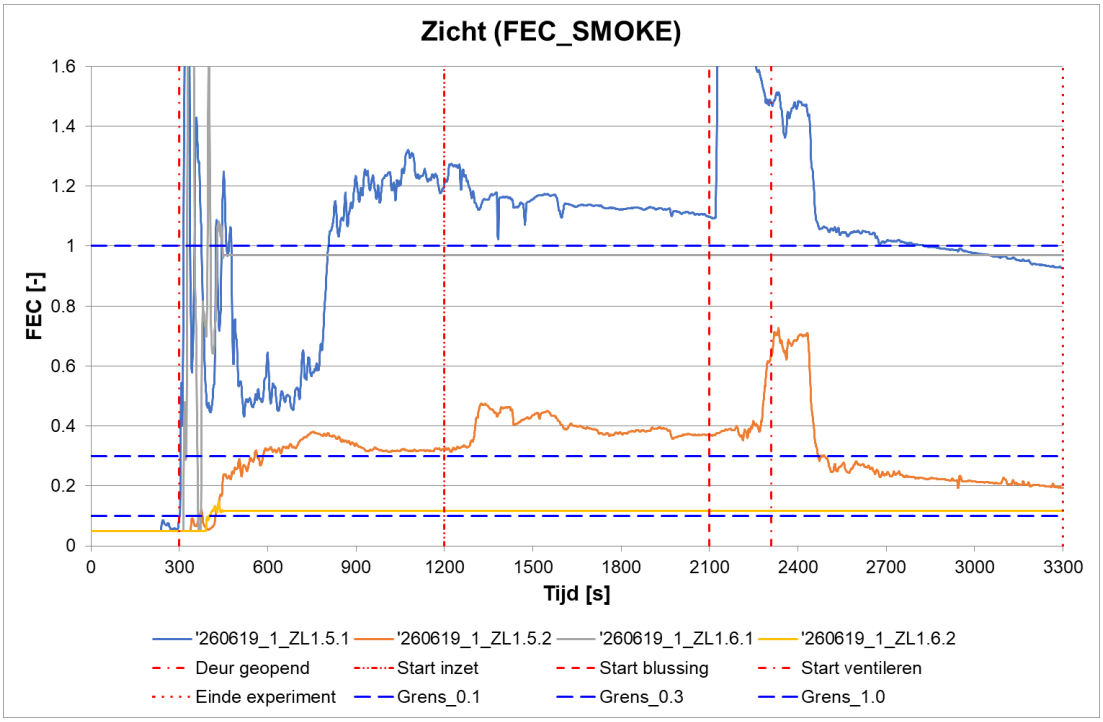




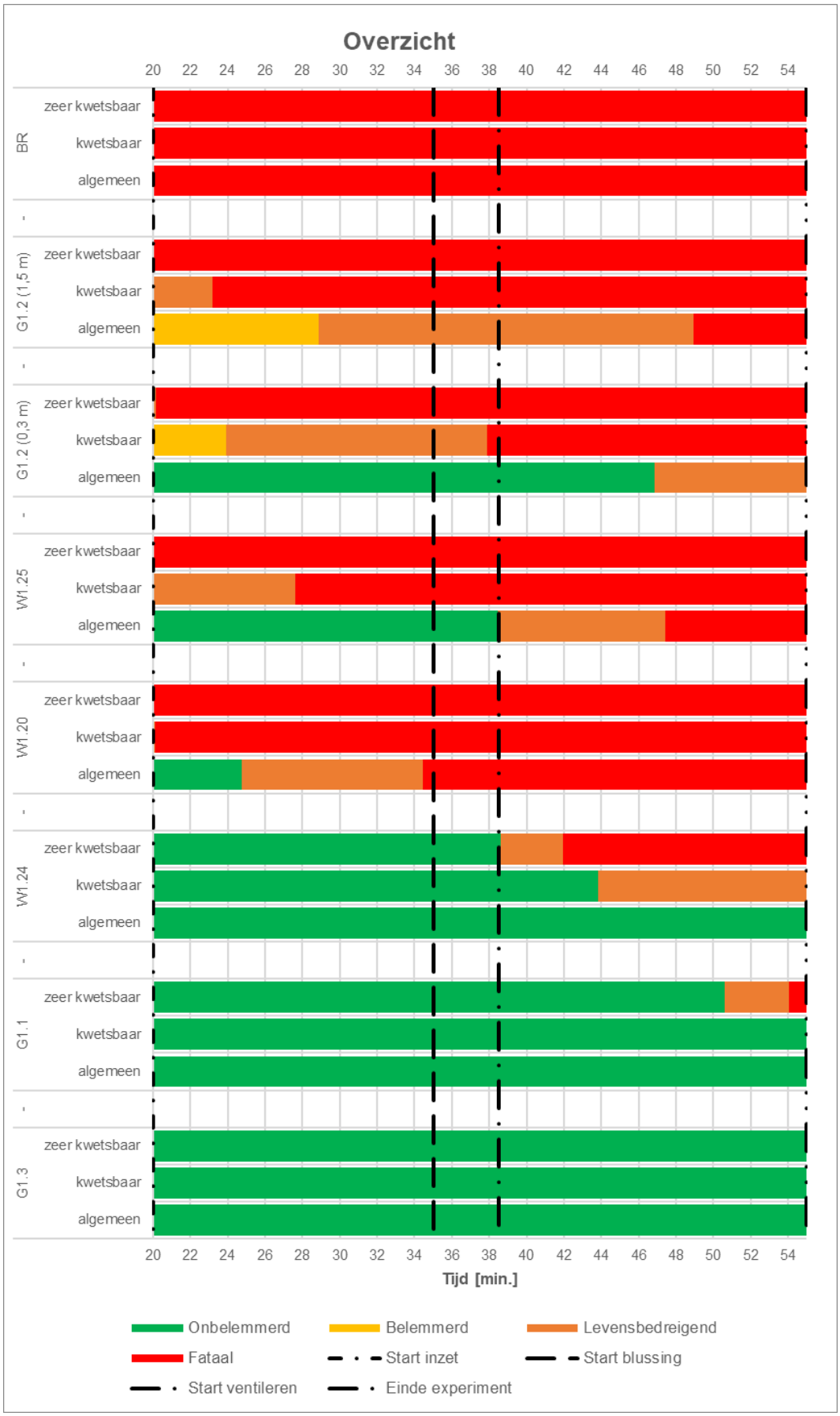
Heat



Visibility



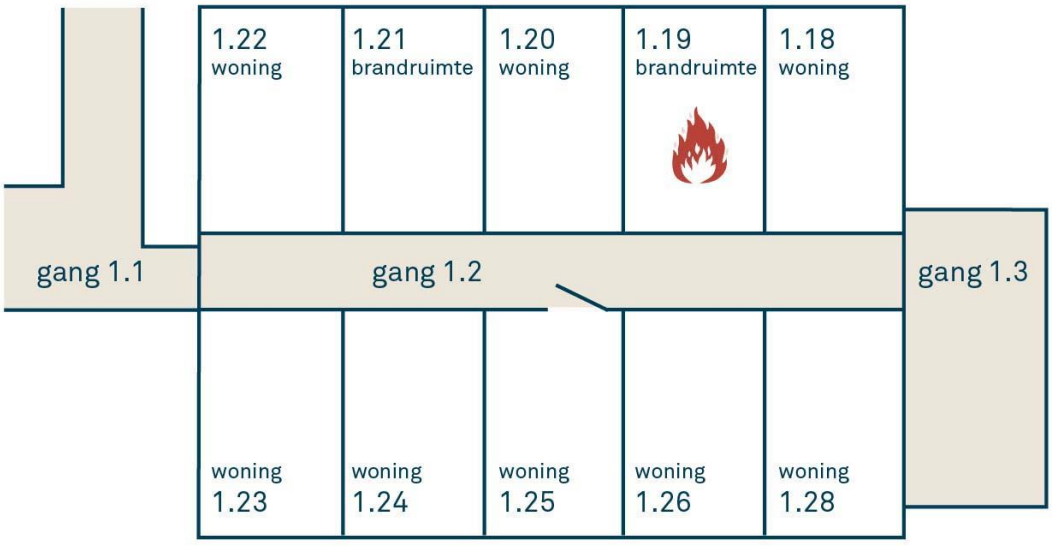
Overview


Overzicht
20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54
BR
G1.2 (1,5 m)
G1.2 (0,3 m)
W1.25
W1.20
W1.24
G1.1
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
-
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Start inzet
Start blussing
Start ventileren
Einde experiment

Test 5 (variant 0: door open) 26-06-19

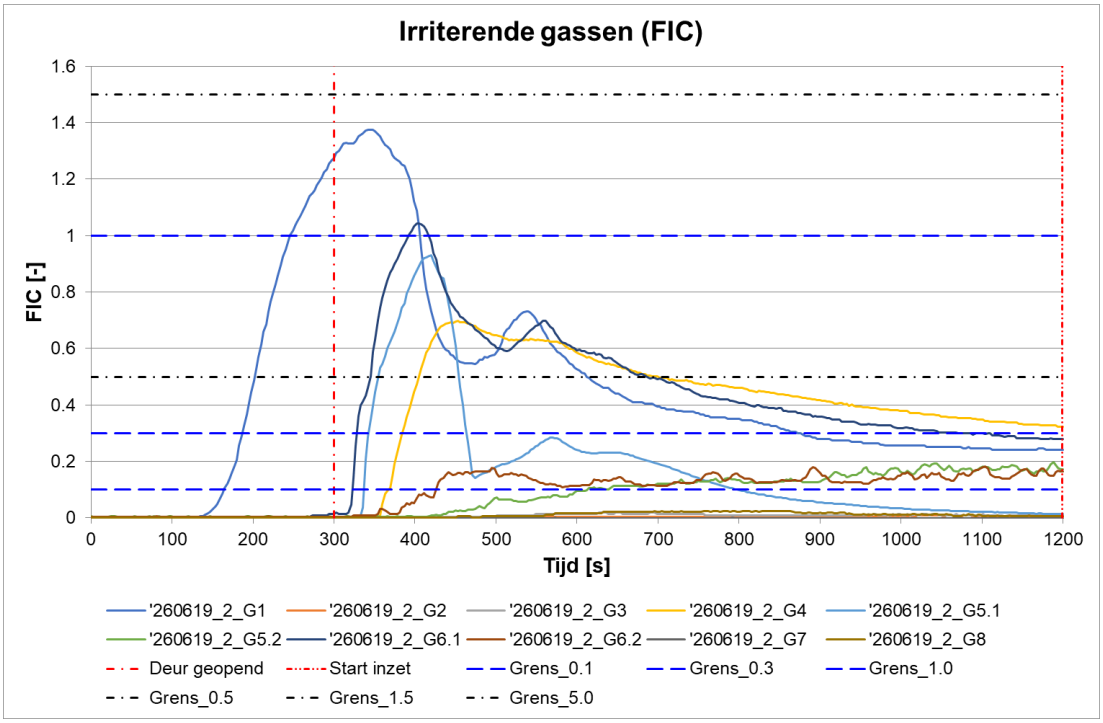
A. Description of the test

Test number	5
Date	26/06/2019
Morning / afternoon	Afternoon
Fire room	1.19
Door to the fire room open / closed	Open
Fire service deployment	Offensive interior attack
Extra measures	None
Specific aspects	Time of camera A23 not correct.



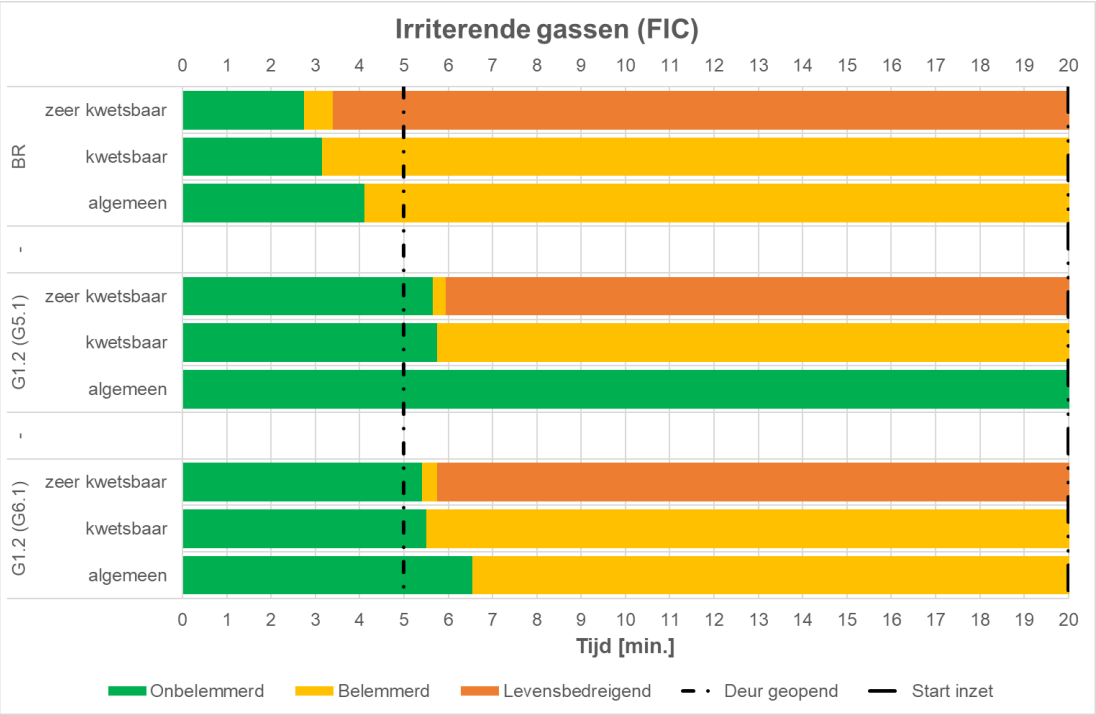
B. Escape phase (0 - 20 minutes)

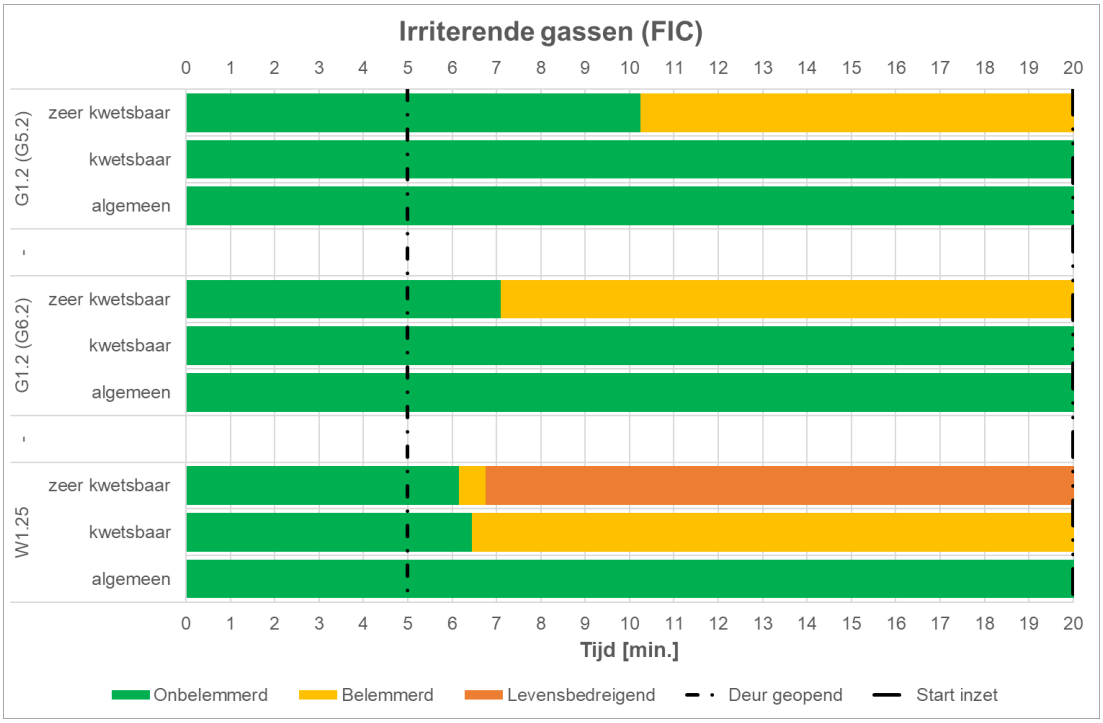
Irritant gases

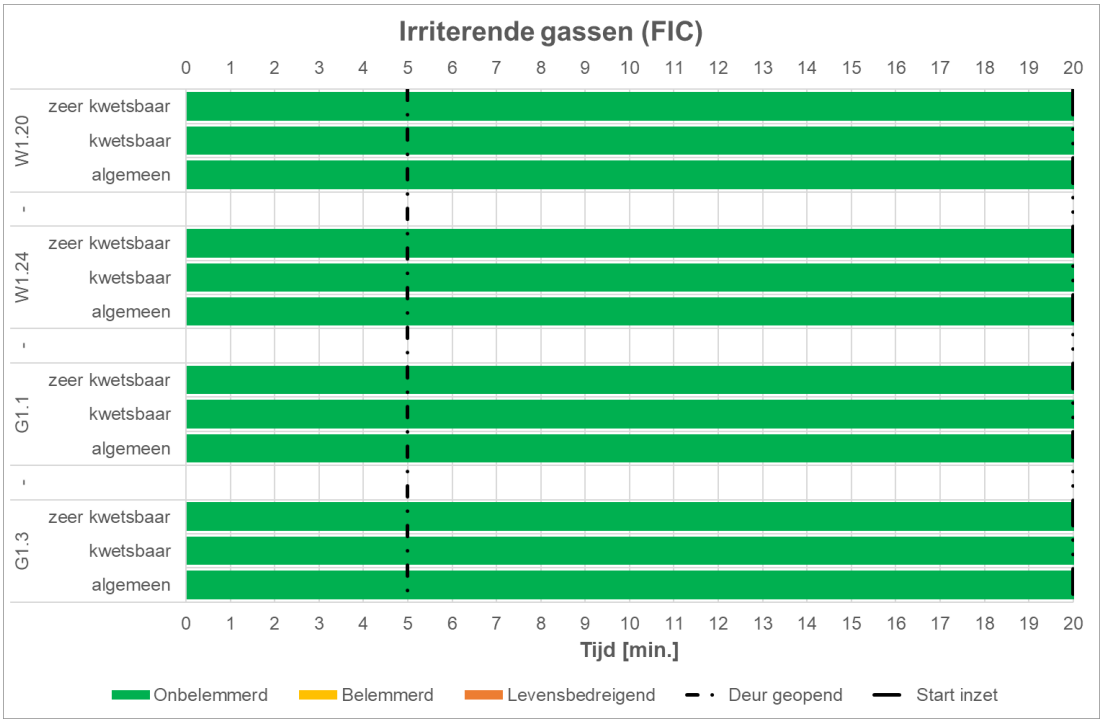


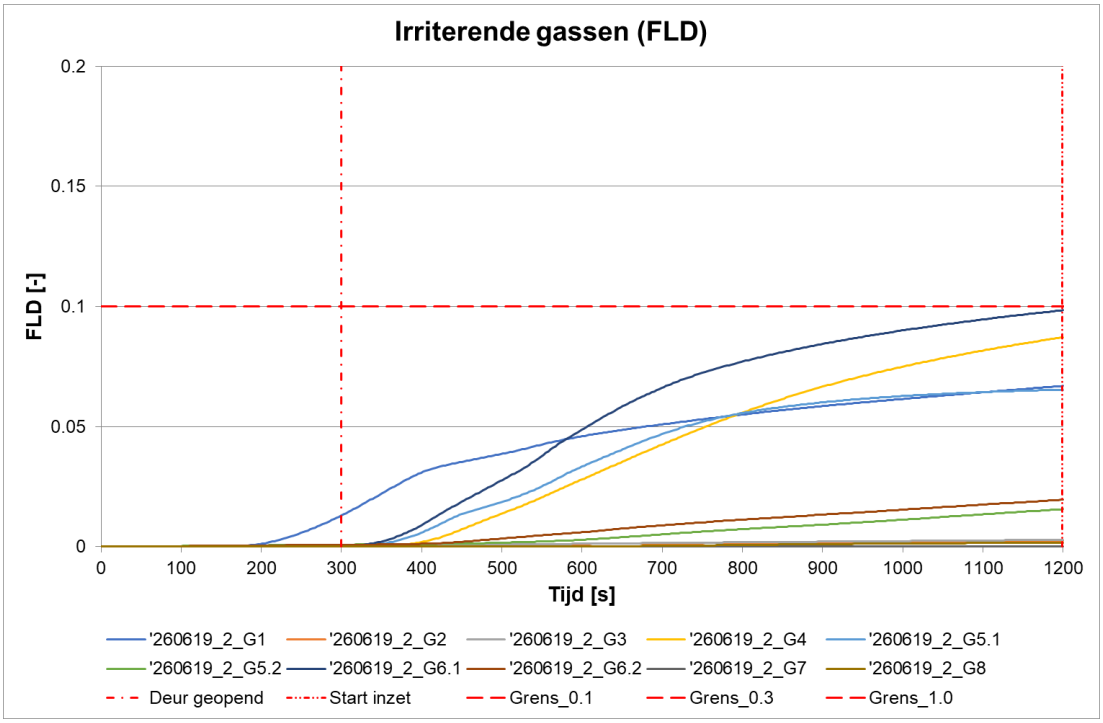
		Irritant gases (FIC)			
	Group	Threshold [-]	Safe [min.]	Impaired [min.]	Life-threatening [min.]
Fire room 1.19 G1	Highly vulnerable	0.1/0.5	2.8	3.4	> 3.4
	Vulnerable	0.3/1.5	3.2	> 55.0	-
	General	1.0/5.0	4.1	> 55.0	-
Residence 1.20 G2	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Residence 1.24 G3	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-

Residence 1.25 G4	Highly vulnerable	0.1/0.5	6.2	6.8	> 6.8
	Vulnerable	0.3/1.5	6.5	> 55.0	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.5	5.7	6.0	> 6.0
	Vulnerable	0.3/1.5	5.8	> 55.0	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.5	10.3	> 55.0	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.5	5.4	5.8	> 5.8
	Vulnerable	0.3/1.5	5.5	> 55.0	-
	General	1.0/5.0	6.6	> 55.0	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.5	7.1	> 55.0	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-


Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G5.1)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.1)
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Start inzet


Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Start inzet

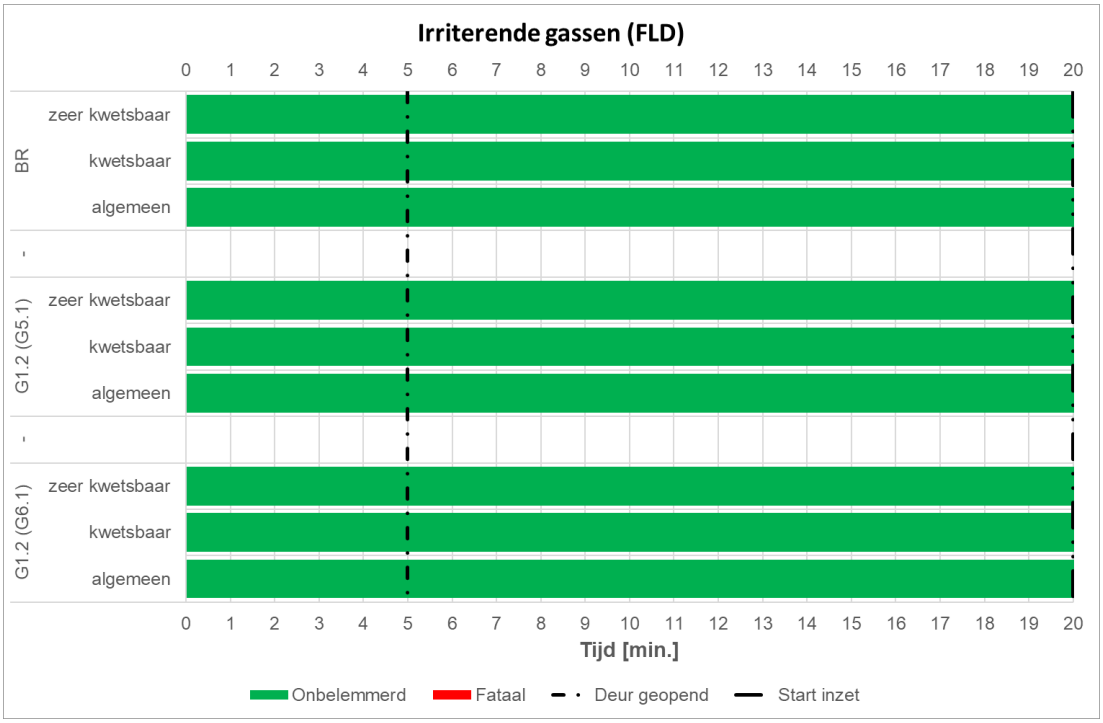




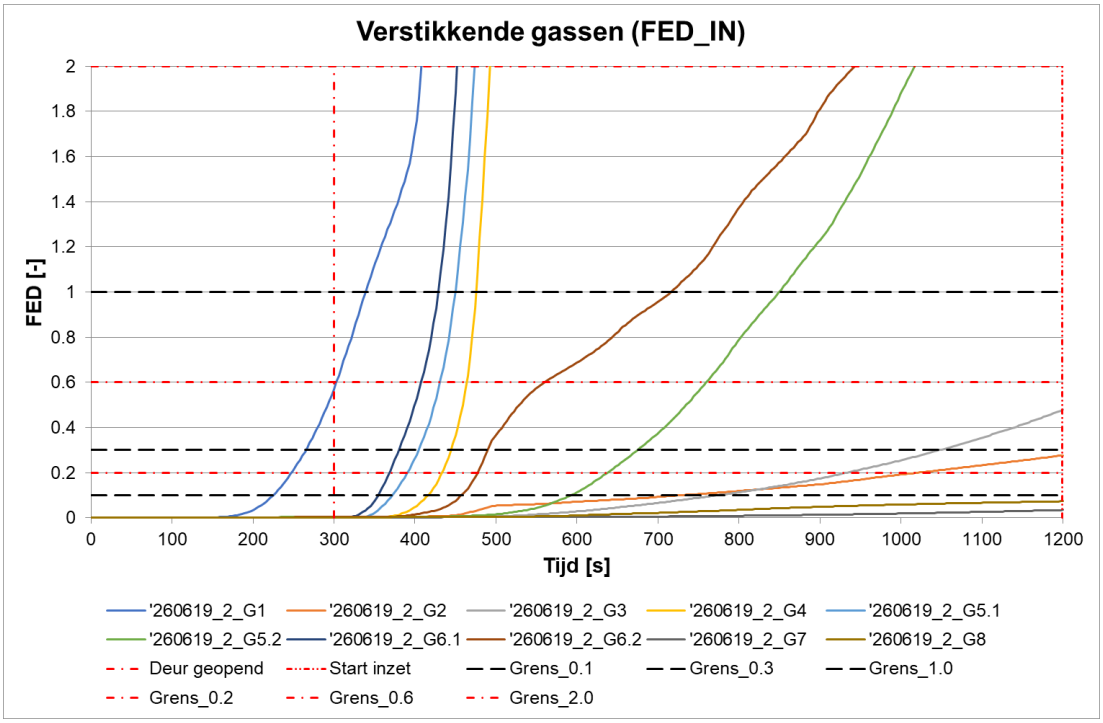
Irritant gases (FLD)				
	Group	Threshold [-]	Safe [min.]	Impaired [min.]
Fire room 1.19	Highly vulnerable	0.1	> 55.0	-

G1	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.20 G2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.24 G3	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.25 G4	Highly vulnerable	0.1	25.1	> 25.1
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G5.1	Highly vulnerable	0.1	47.7	> 47.7
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G5.2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G6.1	Highly vulnerable	0.1	20.8	> 20.8
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G6.2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-

Corridor 1.1 G7	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.3 G8	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-

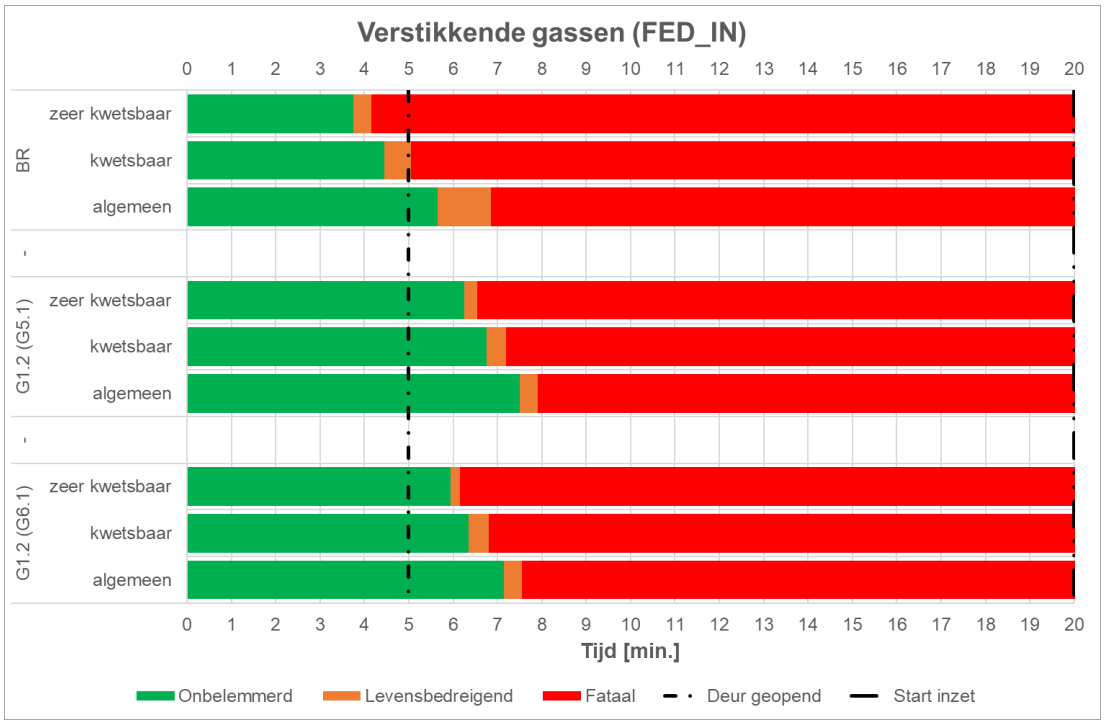


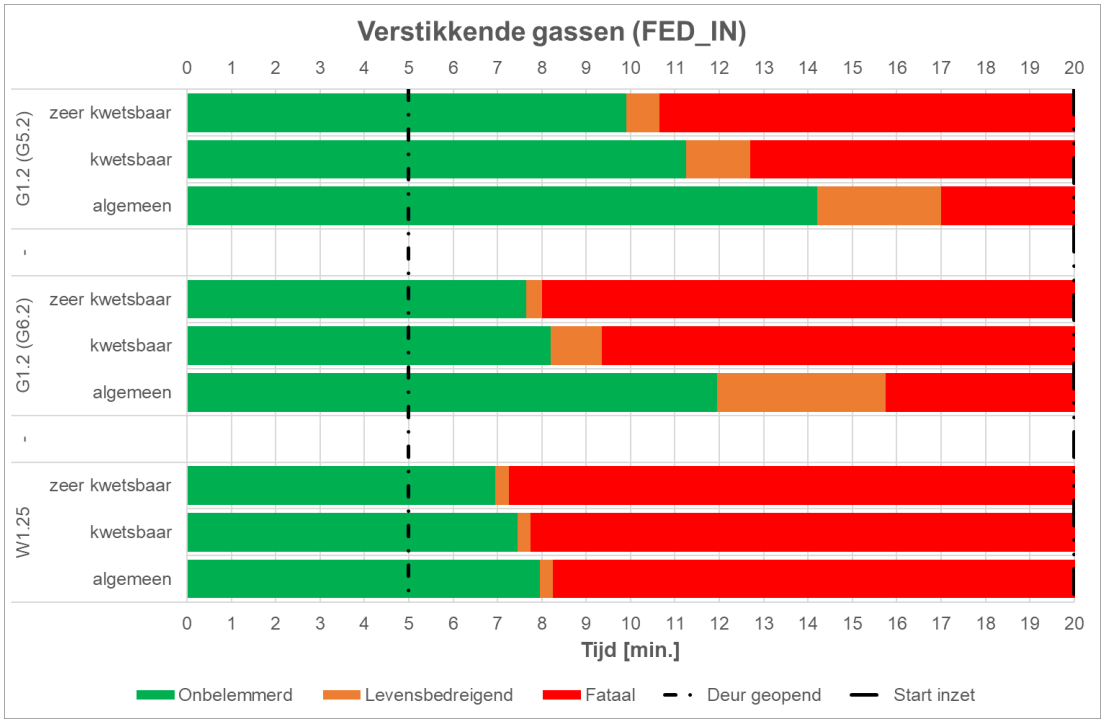
Asphyxiant gases

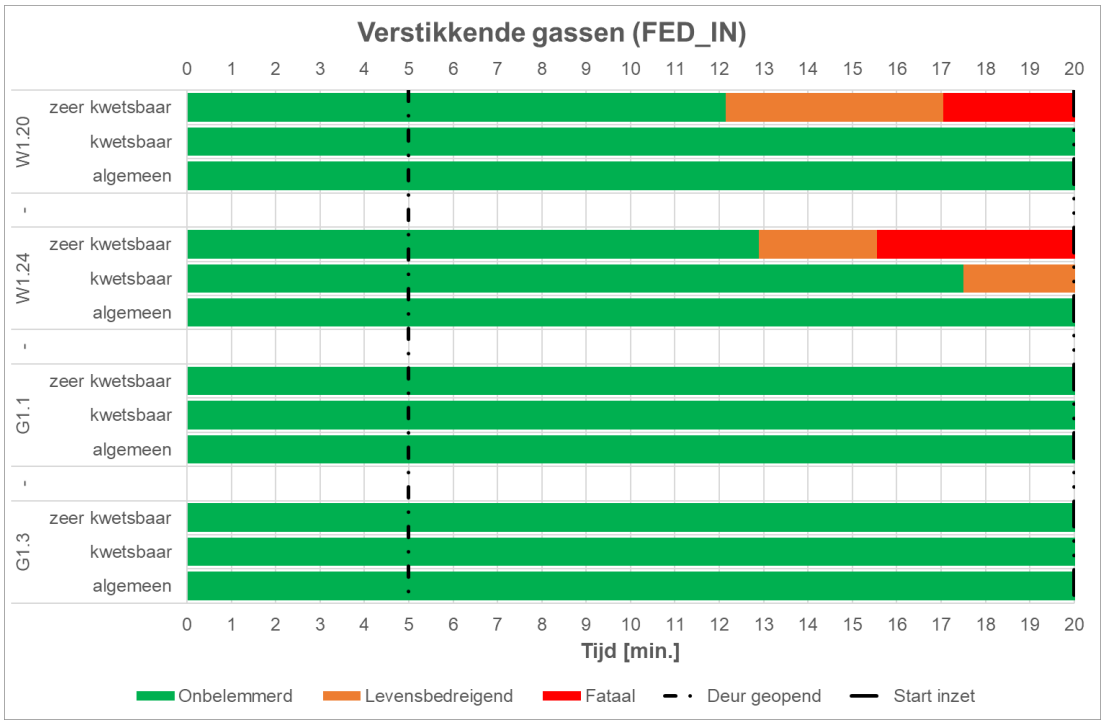


	Asphyxiant gases (FED_IN)				
	Group	Threshold [-]	Safe [min.]	Life-threatening [min.]	Fatal [min.]
Fire room 1.19 G1	Highly vulnerable	0.1/0.2	3.8	4.2	> 4.2
	Vulnerable	0.3/0.6	4.5	5.1	> 5.1
	General	1.0/2.0	5.7	6.9	> 6.9
Residence 1.20 G2	Highly vulnerable	0.1/0.2	12.2	17.1	> 17.1
	Vulnerable	0.3/0.6	20.6	23.8	> 23.8
	General	1.0/2.0	26.1	30.6	> 30.6
Residence 1.24 G3	Highly vulnerable	0.1/0.2	12.9	15.6	> 15.6
	Vulnerable	0.3/0.6	17.5	21.5	> 21.5
	General	1.0/2.0	24.3	28.1	> 28.1

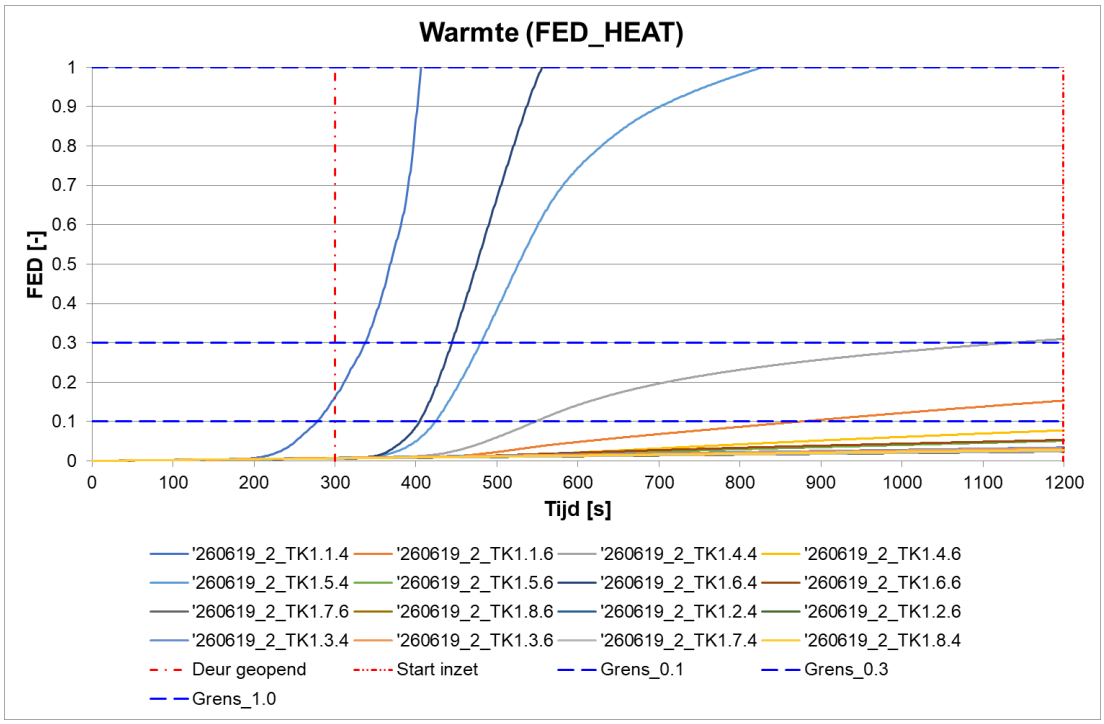
Residence 1.25 G4	Highly vulnerable	0.1/0.2	7.0	7.3	> 7.3
	Vulnerable	0.3/0.6	7.5	7.8	> 7.8
	General	1.0/2.0	8.0	8.3	> 8.3
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.2	6.3	6.6	> 6.6
	Vulnerable	0.3/0.6	6.8	7.2	> 7.2
	General	1.0/2.0	7.5	7.9	> 7.9
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.2	9.9	10.7	> 10.7
	Vulnerable	0.3/0.6	11.3	12.7	> 12.7
	General	1.0/2.0	14.2	17.0	> 17.0
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.2	6.0	6.2	> 6.2
	Vulnerable	0.3/0.6	6.4	6.8	> 6.8
	General	1.0/2.0	7.2	7.6	> 7.6
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.2	7.7	8.0	> 8.0
	Vulnerable	0.3/0.6	8.2	9.4	> 9.4
	General	1.0/2.0	12.0	15.8	> 15.8
Corridor 1.1 G7	Highly vulnerable	0.1/0.2	26.7	29.3	> 29.3
	Vulnerable	0.3/0.6	30.8	34.6	> 34.6
	General	1.0/2.0	38.5	46.8	> 46.8
Corridor 1.3 G8	Highly vulnerable	0.1/0.2	22.3	26.3	> 26.3
	Vulnerable	0.3/0.6	28.0	31.6	> 31.6
	General	1.0/2.0	34.7	41.7	> 41.7


Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G5.1)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.1)
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet


Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet

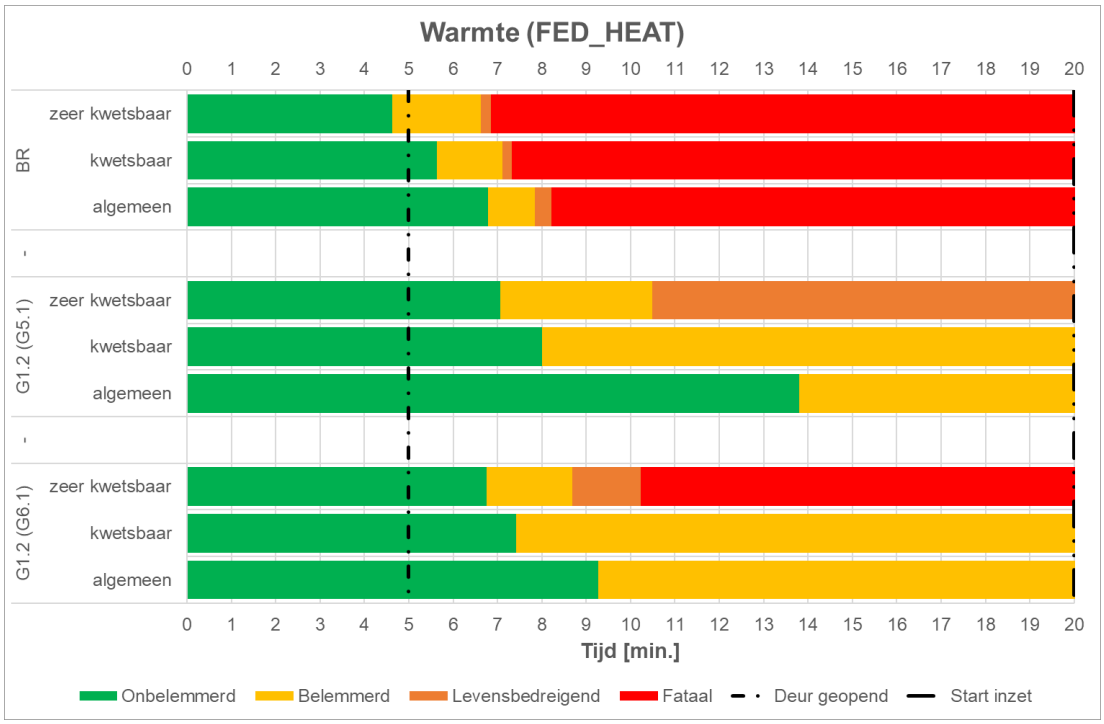

Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet

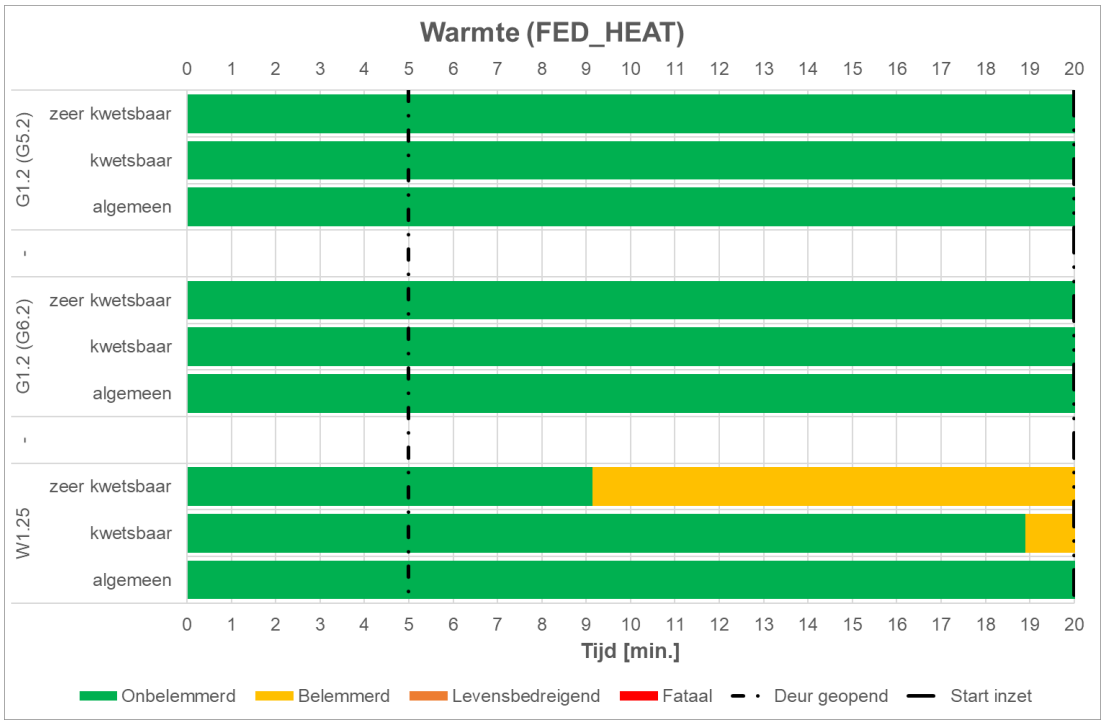
Heat

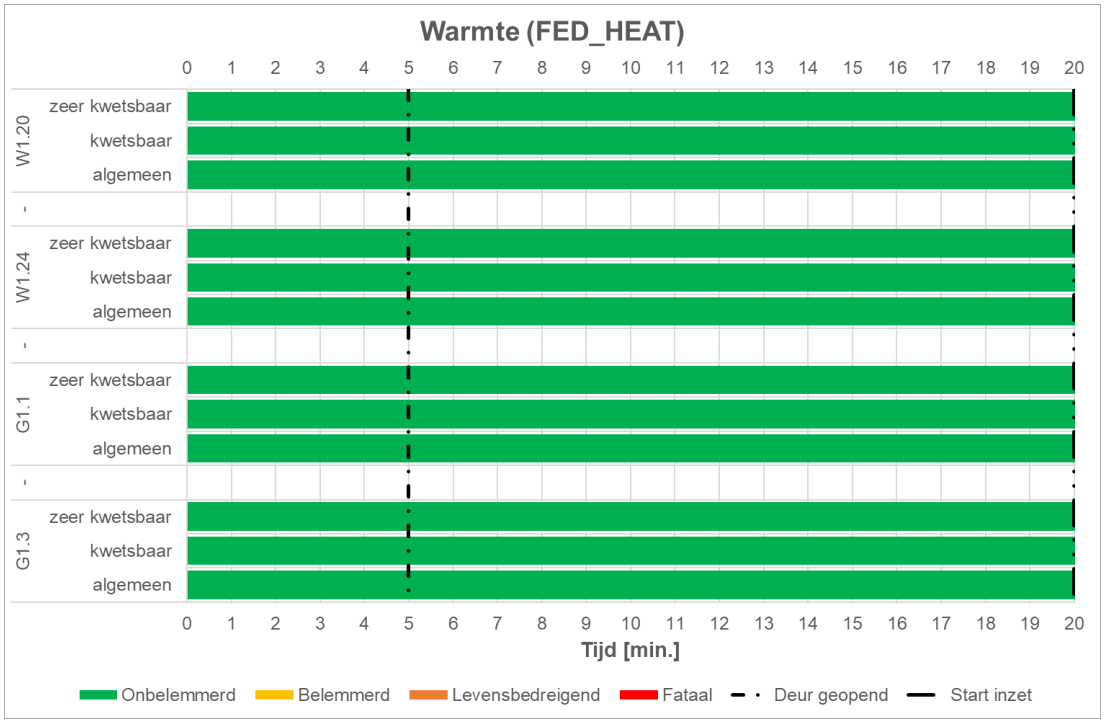

Warmte (FED_HEAT)
FED [-]
0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
Tijd [s]
'260619_2_TK1.1.4
'260619_2_TK1.1.6
'260619_2_TK1.4.4
'260619_2_TK1.4.6
'260619_2_TK1.5.4
'260619_2_TK1.5.6
'260619_2_TK1.6.4
'260619_2_TK1.6.6
'260619_2_TK1.7.6
'260619_2_TK1.8.6
'260619_2_TK1.2.4
'260619_2_TK1.2.6
'260619_2_TK1.3.4
'260619_2_TK1.3.6
'260619_2_TK1.7.4
'260619_2_TK1.8.4
Deur geopend
Start inzet
Grens_0.1
Grens_0.3
Grens_1.0

Heat (FED_HEAT)						
	Group	Threshold [-]	Safe [min.]	Impaired [min.]	Life-threatening [min.]	Fatal [min.]
Fire room 1.19 G1	Highly vulnerable	0.1/0.8/1.2	4.6	6.6	6.9	> 6.9
	Vulnerable	0.3/2.4/12.0	5.6	7.1	7.3	> 7.3
	General	1.0/8.0/12.0	6.8	7.9	8.2	> 8.2
Residence 1.20 G2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Residence 1.24 G3	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Residence 1.25 G4	Highly vulnerable	0.1/0.8/1.2	9.1	> 55.0	-	-
	Vulnerable	0.3/2.4/12.0	18.9	> 55.0	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.8/1.2	7.1	10.5	24.8	> 24.8
	Vulnerable	0.3/2.4/12.0	8.0	> 55.0	-	-
	General	1.0/8.0/12.0	13.8	> 55.0	-	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.8/1.2	42.5	> 55.0	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2	Highly vulnerable	0.1/0.8/1.2	6.8	8.7	10.2	> 10.2

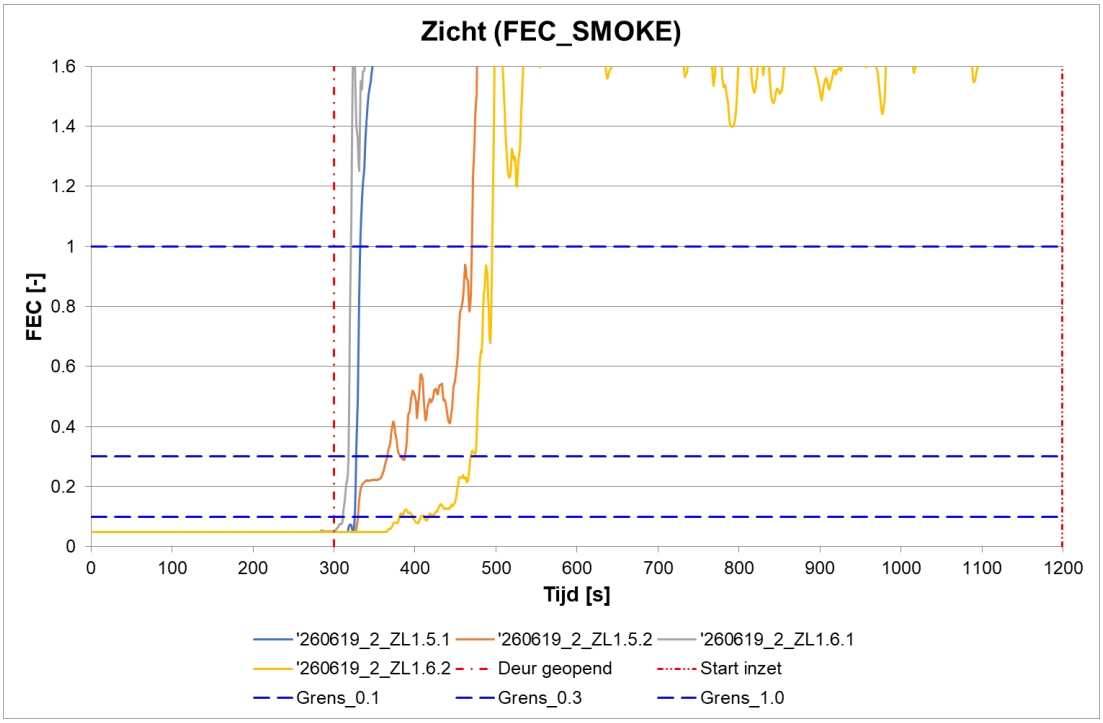
G6.1	Vulnerable	0.3/2.4/12.0	7.4	> 55.0	-	-
	General	1.0/8.0/12.0	9.3	> 55.0	-	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.8/1.2	48.3	> 55.0	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-




Warmte (FED_HEAT)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet

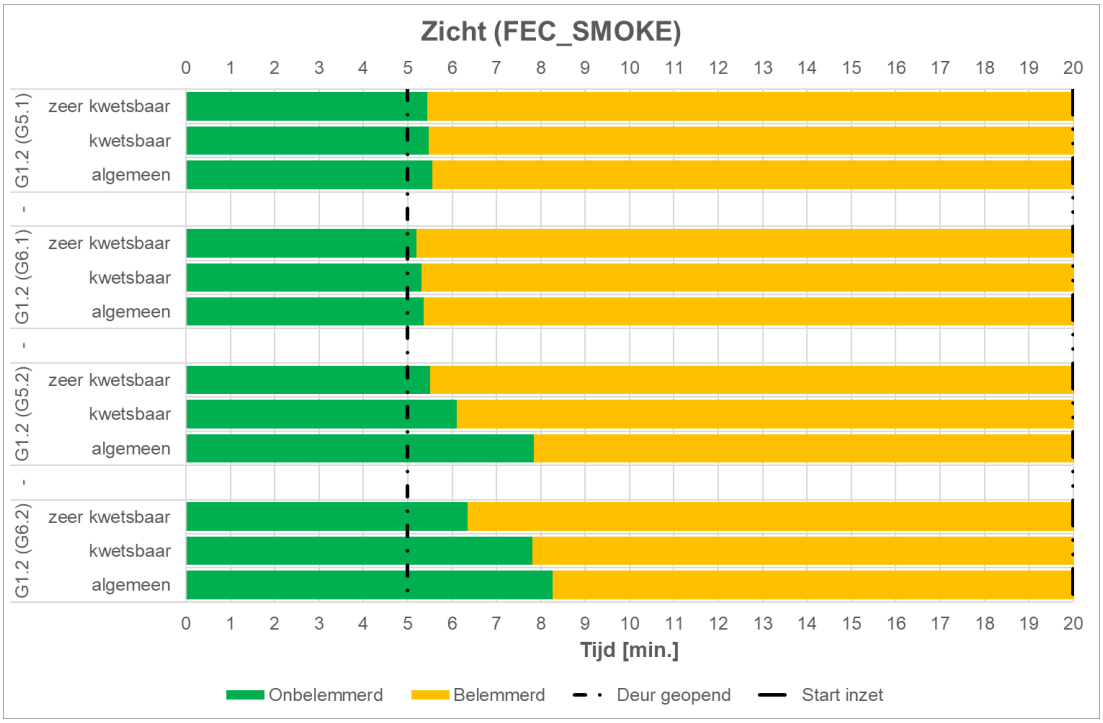

Warmte (FED_HEAT)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet

Visibility

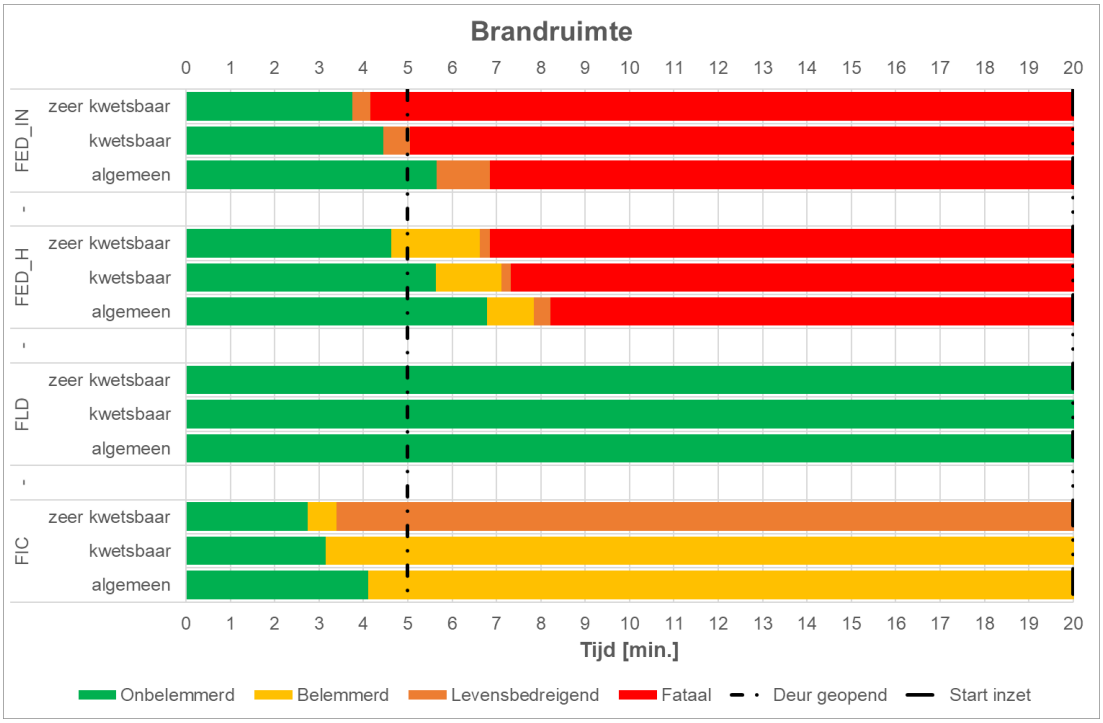


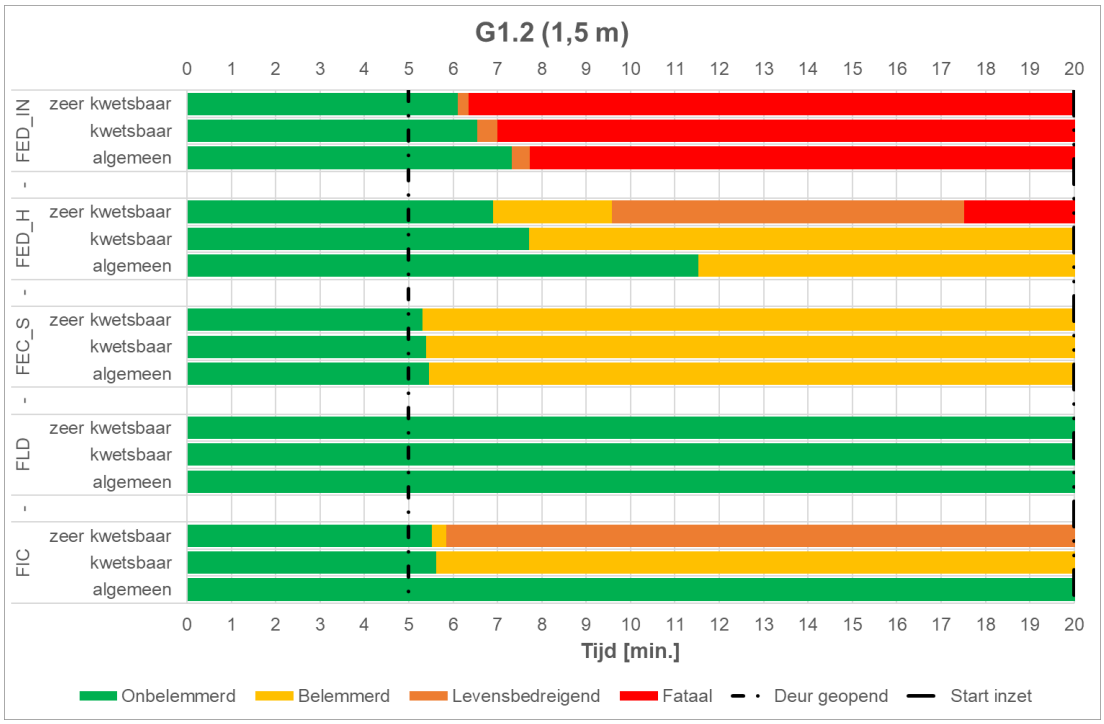
Visibility (FEC_SMOKE)				
	Group	Threshold [-]	Safe [min.]	Impaired [min.]
Corridor 1.2 G5.1	Highly vulnerable	0.1	5.4	> 5.4
	Vulnerable	0.3	5.5	> 5.5
	General	1.0	5.6	> 5.6
Corridor 1.2 G5.2	Highly vulnerable	0.1	5.5	> 5.5
	Vulnerable	0.3	6.1	> 6.1
	General	1.0	7.9	> 7.9
Corridor 1.2 G6.1	Highly vulnerable	0.1	5.2	> 5.2
	Vulnerable	0.3	5.3	> 5.3
	General	1.0	5.4	> 5.4

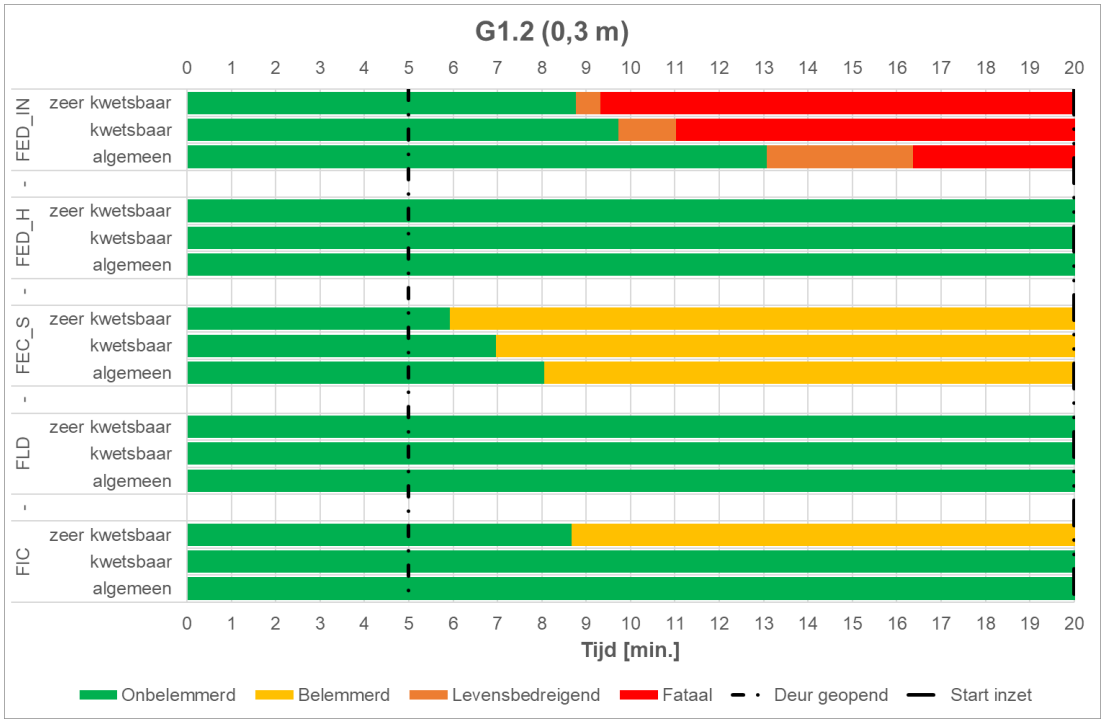
Corridor 1.2 G6.2	Highly vulnerable	0.1	6.4	> 6.4
	Vulnerable	0.3	7.8	> 7.8
	General	1.0	8.3	> 8.3



Overview

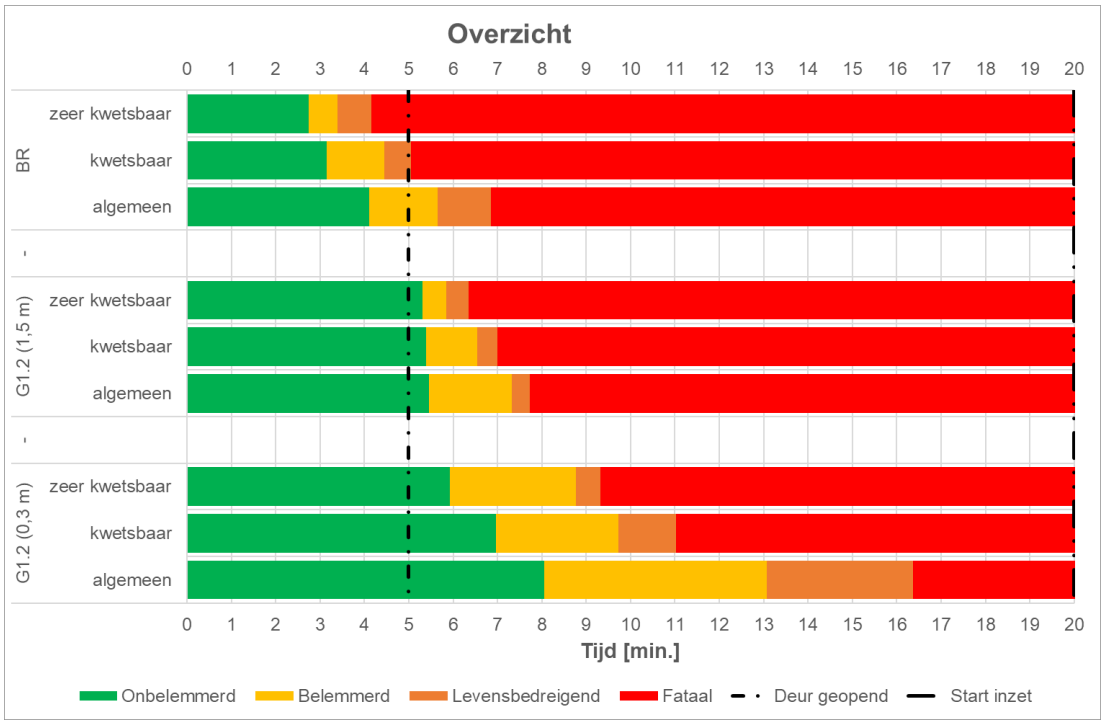


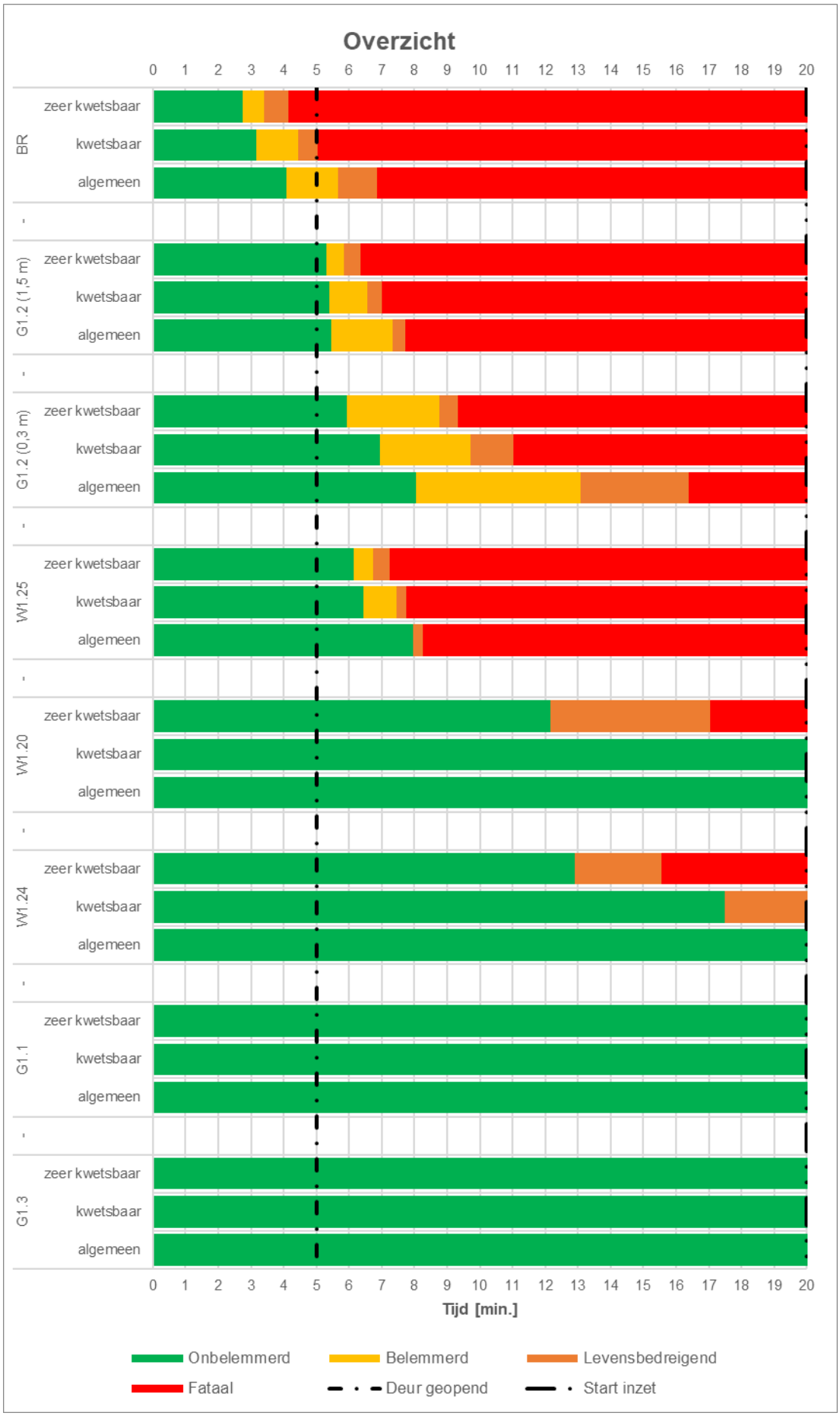

G1.2 (1,5 m)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
FED_IN
FED_H
FEC_S
FLD
FIC
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet


G1.2 (0,3 m)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
FED_IN
FED_H
FEC_S
FLD
FIC
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet

	Overview	Escape		Survivability	
	Group	Safe [min.]	Impaired [min.]	Life-threatening [min.]	Fatal [min.]
Fire room 1.19 G1	Highly vulnerable	2.8	3.4	4.2	> 4.2
	Vulnerable	3.2	4.5	5.1	> 5.1
	General	4.1	5.7	6.9	> 6.9
Residence 1.20 G2	Highly vulnerable	12.2	12.2	17.1	> 17.1
	Vulnerable	20.6	20.6	23.8	> 23.8
	General	26.1	26.1	30.6	> 30.6
Residence 1.24 G3	Highly vulnerable	12.9	12.9	15.6	> 15.6
	Vulnerable	17.5	17.5	21.5	> 21.5
	General	24.3	24.3	28.1	> 28.1
Residence 1.25 G4	Highly vulnerable	6.2	6.8	7.3	> 7.3
	Vulnerable	6.5	7.5	7.8	> 7.8
	General	8.0	8.0	8.3	> 8.3
Corridor 1.2 G5.1	Highly vulnerable	5.4	6.0	6.6	> 6.6
	Vulnerable	5.5	6.8	7.2	> 7.2
	General	5.6	7.5	7.9	> 7.9
Corridor 1.2 G5.2	Highly vulnerable	5.5	9.9	10.7	> 10.7
	Vulnerable	6.1	11.3	12.7	> 12.7
	General	7.9	14.2	17.0	> 17.0
Corridor 1.2	Highly vulnerable	5.2	5.8	6.2	> 6.2

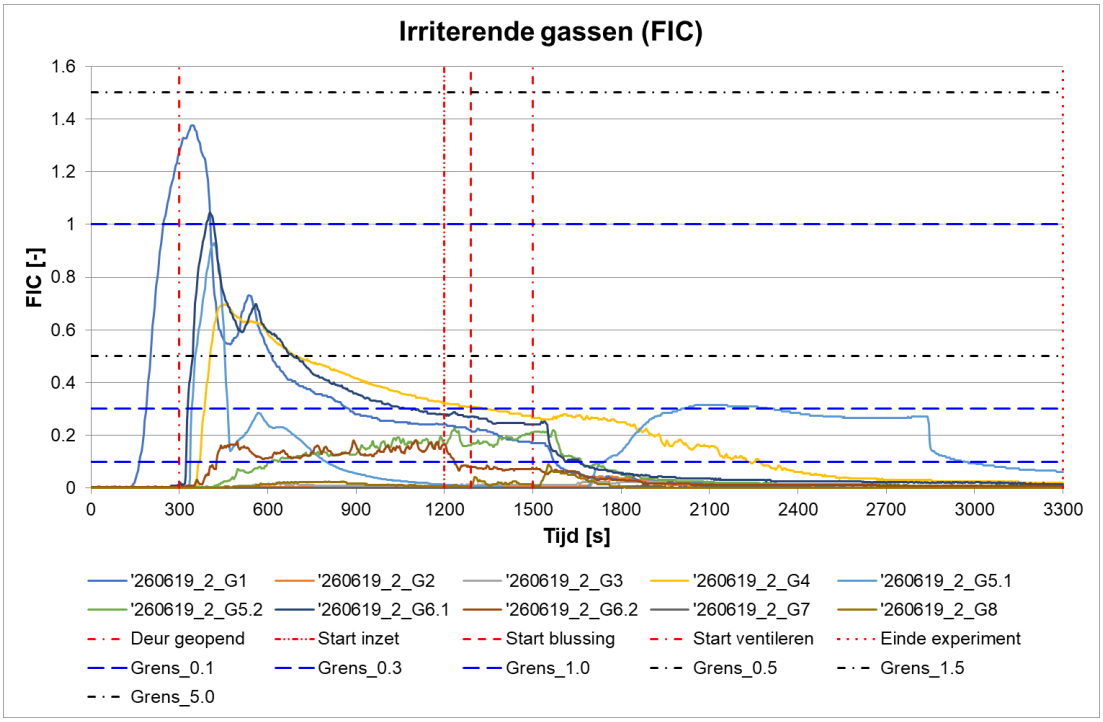
G6.1	Vulnerable	5.3	6.4	6.8	> 6.8
	General	5.4	7.2	7.6	> 7.6
Corridor 1.2 G6.2	Highly vulnerable	6.4	7.7	8.0	> 8.0
	Vulnerable	7.8	8.2	9.4	> 9.4
	General	8.3	12.0	15.8	> 15.8
Corridor 1.1 G7	Highly vulnerable	26.7	26.7	29.3	> 29.3
	Vulnerable	30.8	30.8	34.6	> 34.6
	General	38.5	38.5	46.8	> 46.8
Corridor 1.3 G8	Highly vulnerable	22.3	22.3	26.3	> 26.3
	Vulnerable	28.0	28.0	31.6	> 31.6
	General	34.7	34.7	41.7	> 41.7

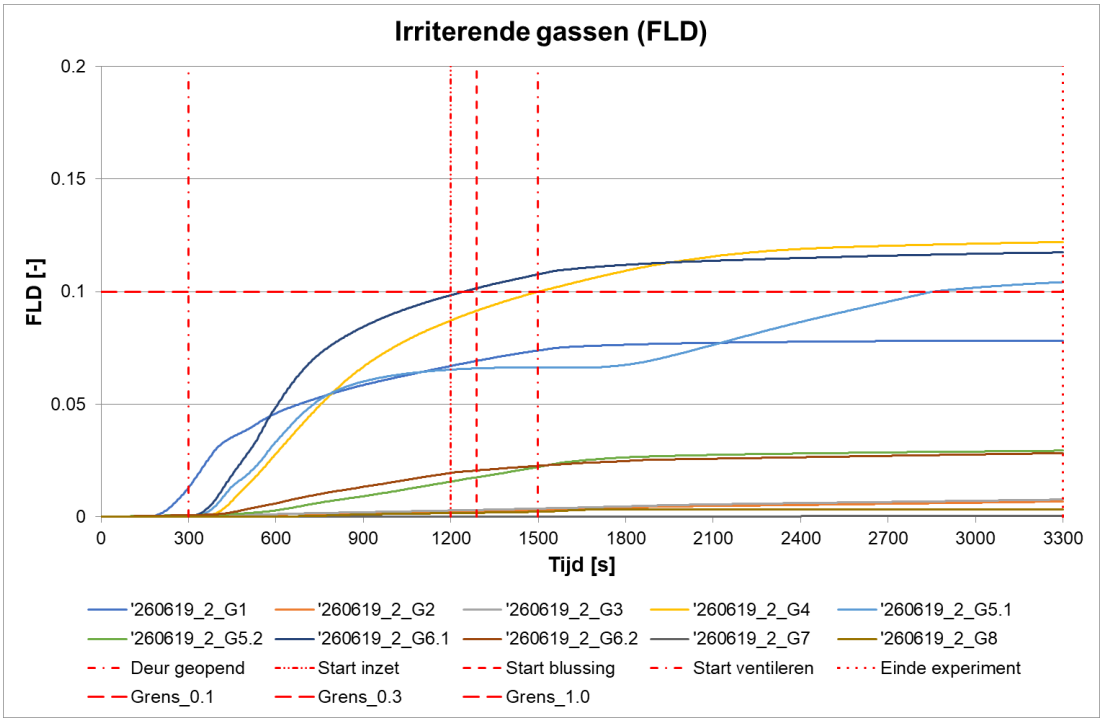



Overzicht
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (1,5 m)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (0,3 m)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet

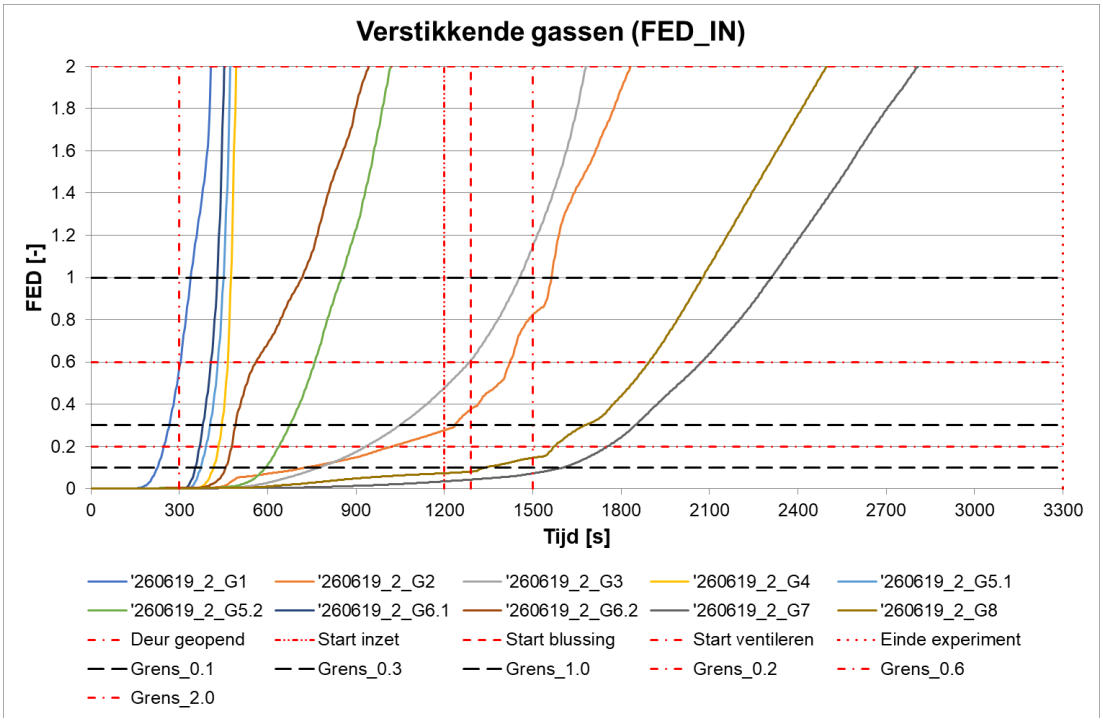
C. Deployment phase (20 - 55 minutes)

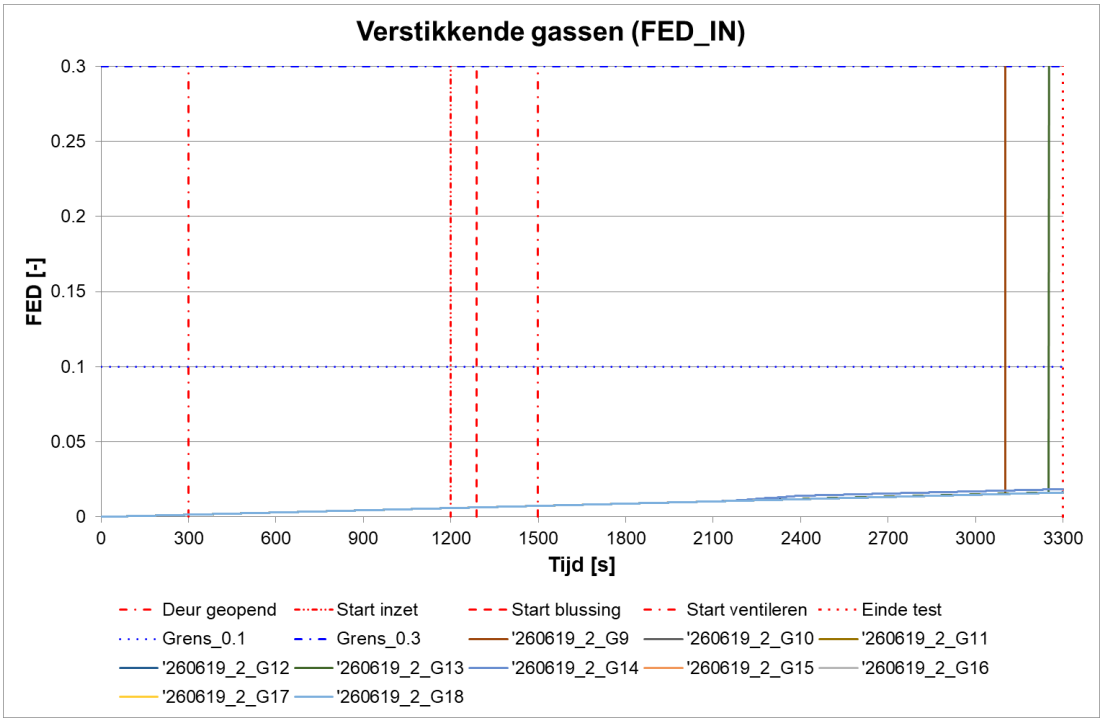
Irritant gases



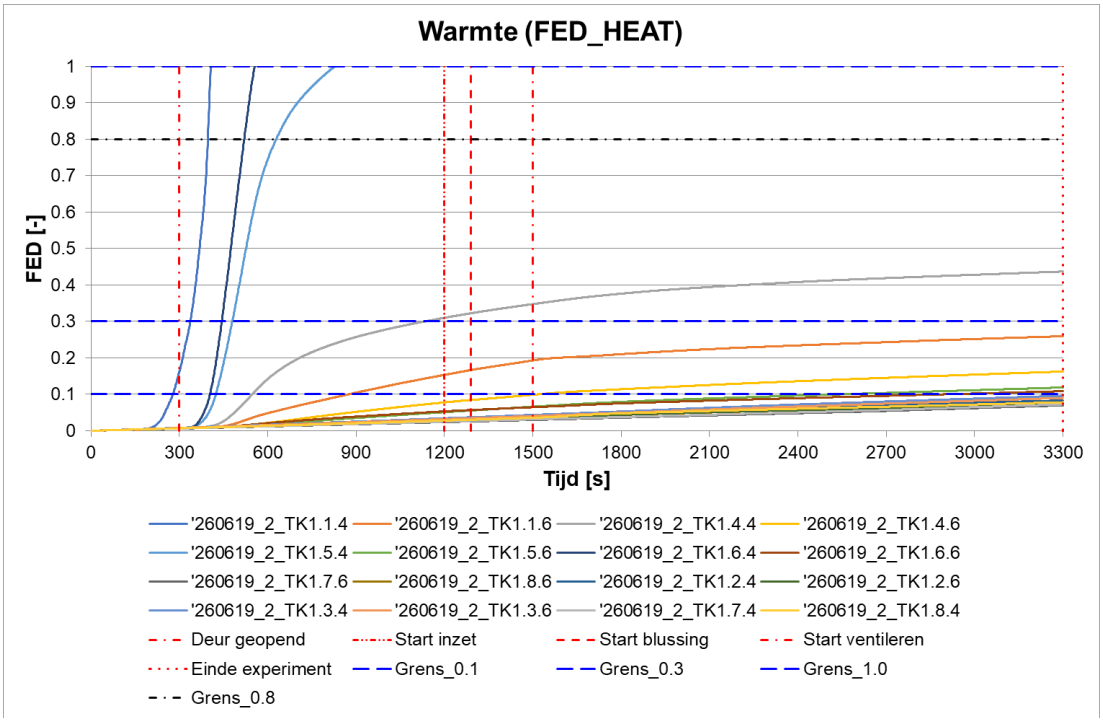


Asphyxiant gases

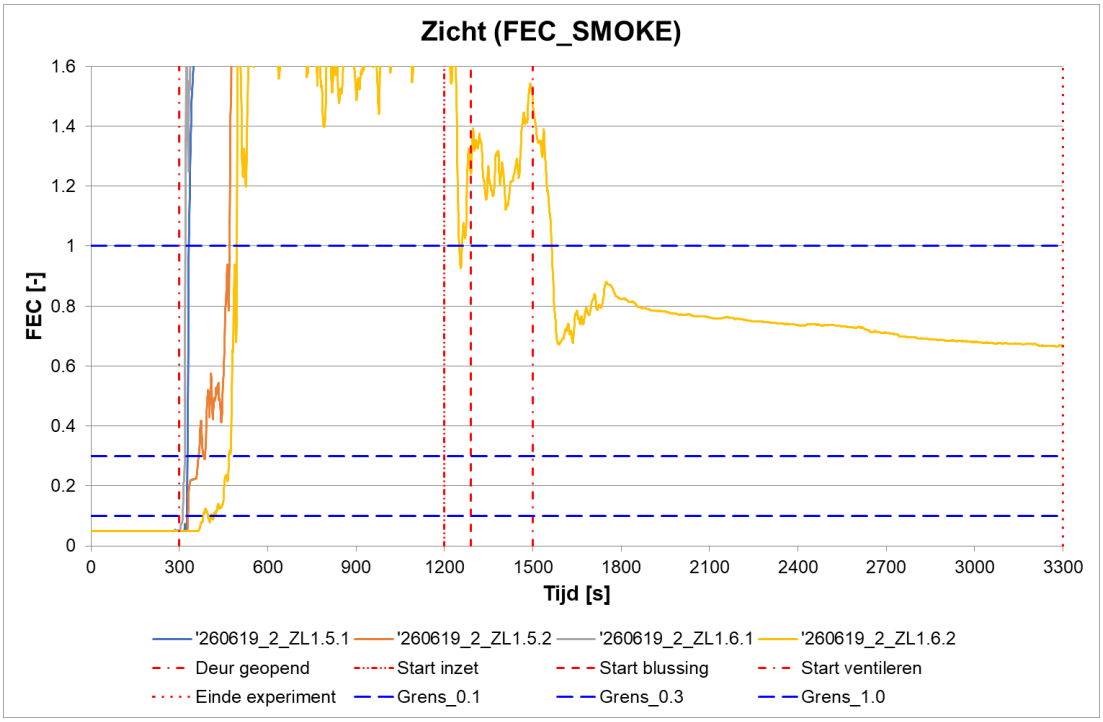




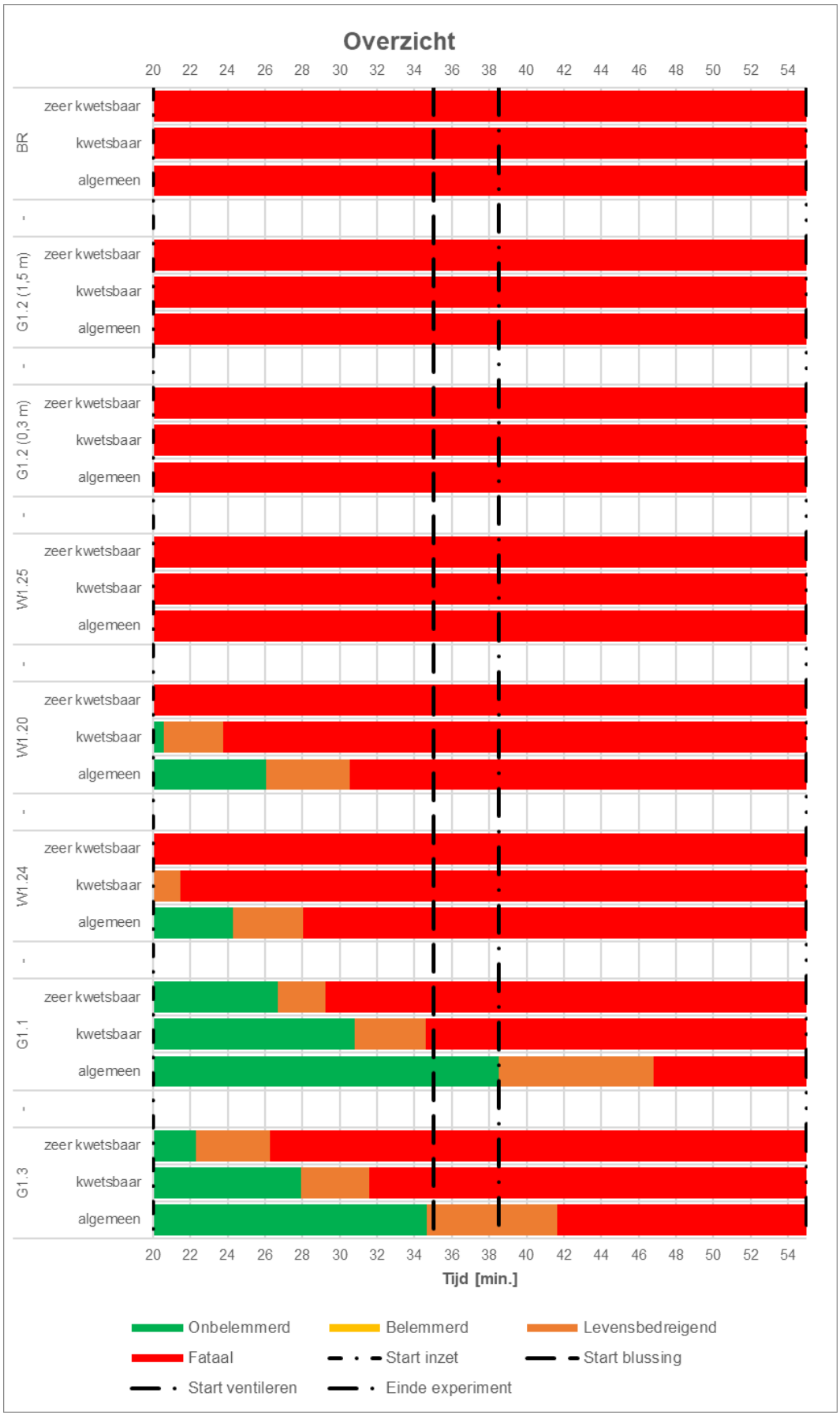
Heat



Visibility



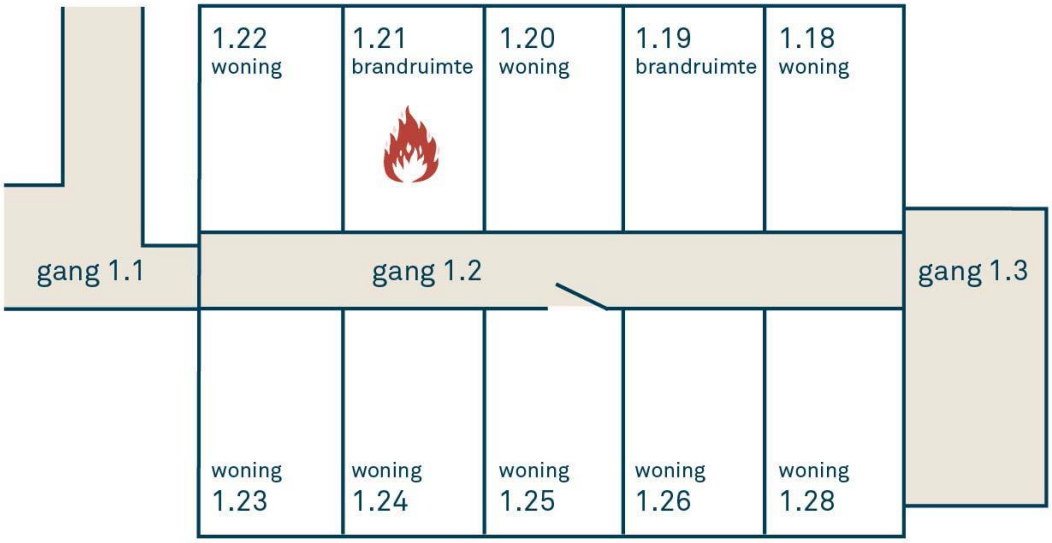
Overview


Overzicht
20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54
BR
G1.2 (1,5 m)
G1.2 (0,3 m)
W1.25
W1.20
W1.24
G1.1
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
-
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Start inzet
Start blussing
Start ventileren
Einde experiment

Test 6 (variant 3: mobile water mist and door closed) 27/06/19

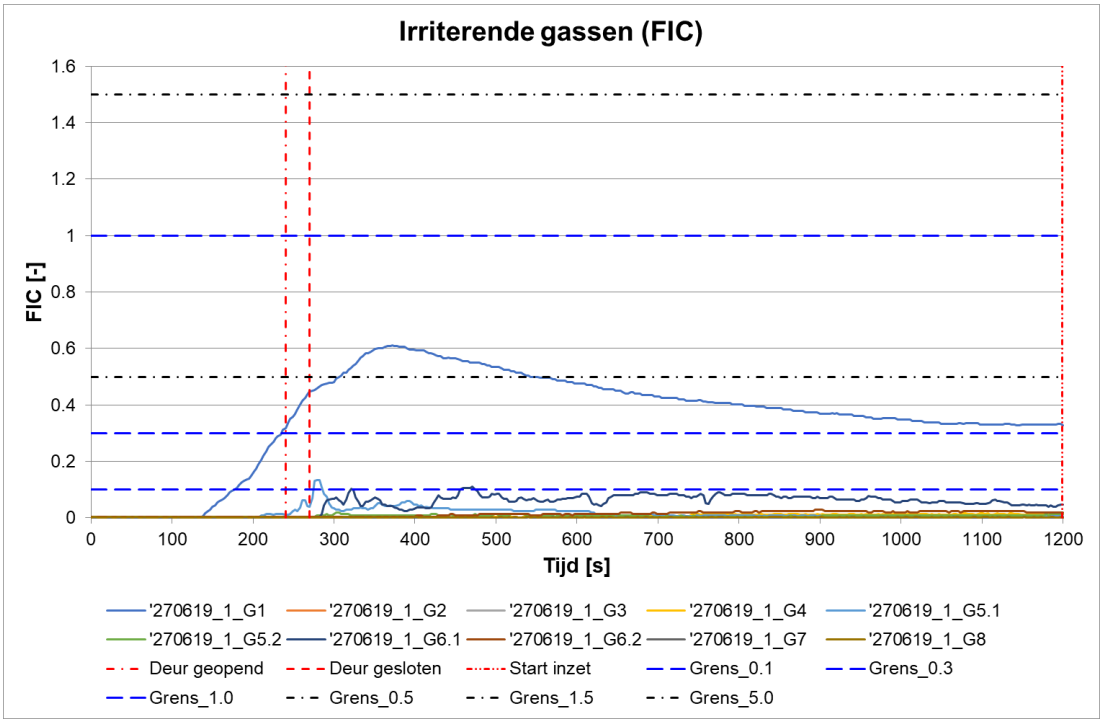
A. Description of the test

Test number	6
Date	27/06/2019
Morning / afternoon	Morning
Fire room	1.21
Door to the fire room open / closed	Closed
Fire service deployment	Offensive interior attack
Extra measures	Mobile water mist
Specific aspects	Mobile water mist was activated 2 minutes and 1 second after the start of the test. Door to the fire room was opened after 4 minutes instead of after 5 minutes. Camera A3 on the ground floor failed. Window in residence 1.25 was opened later while ventilating. Unknown how much later. Door 1.22 opened during the experiment. Unknown at what time and how far.



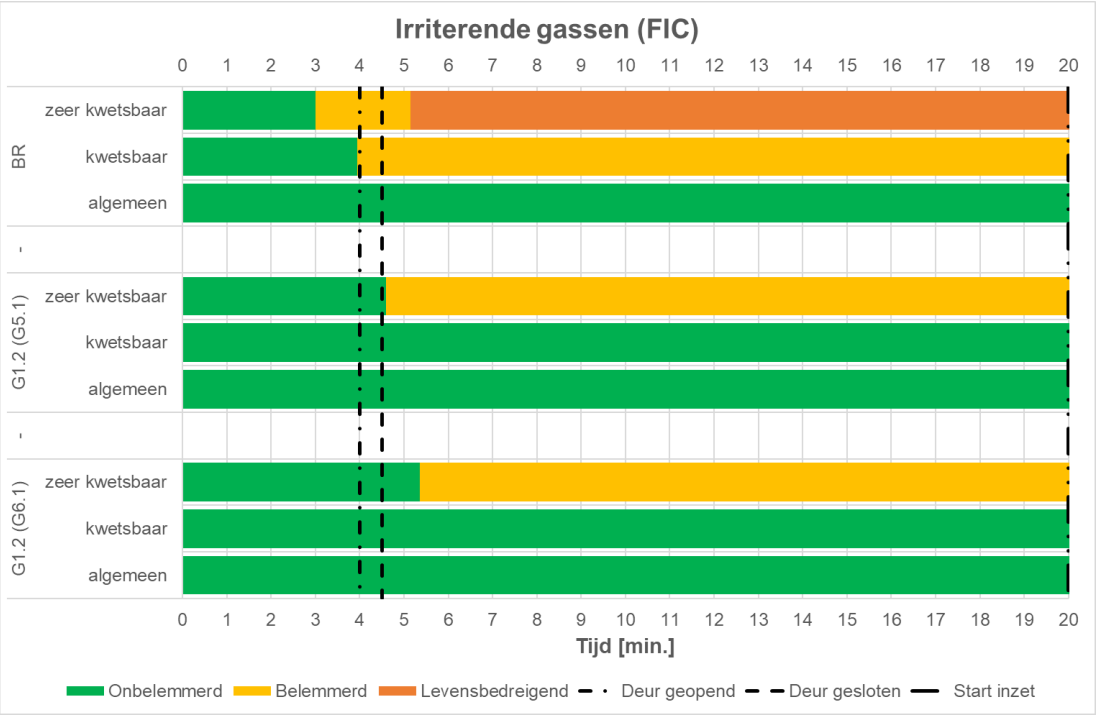
B. Escape phase (0 - 20 minutes)

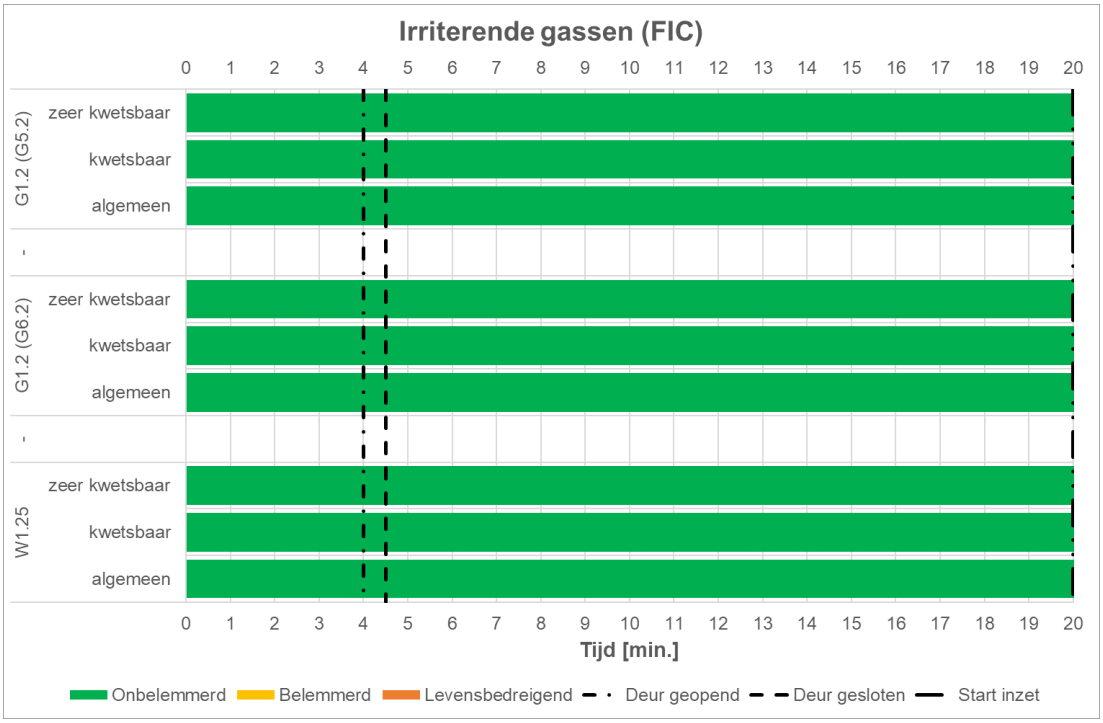
Irritant gases

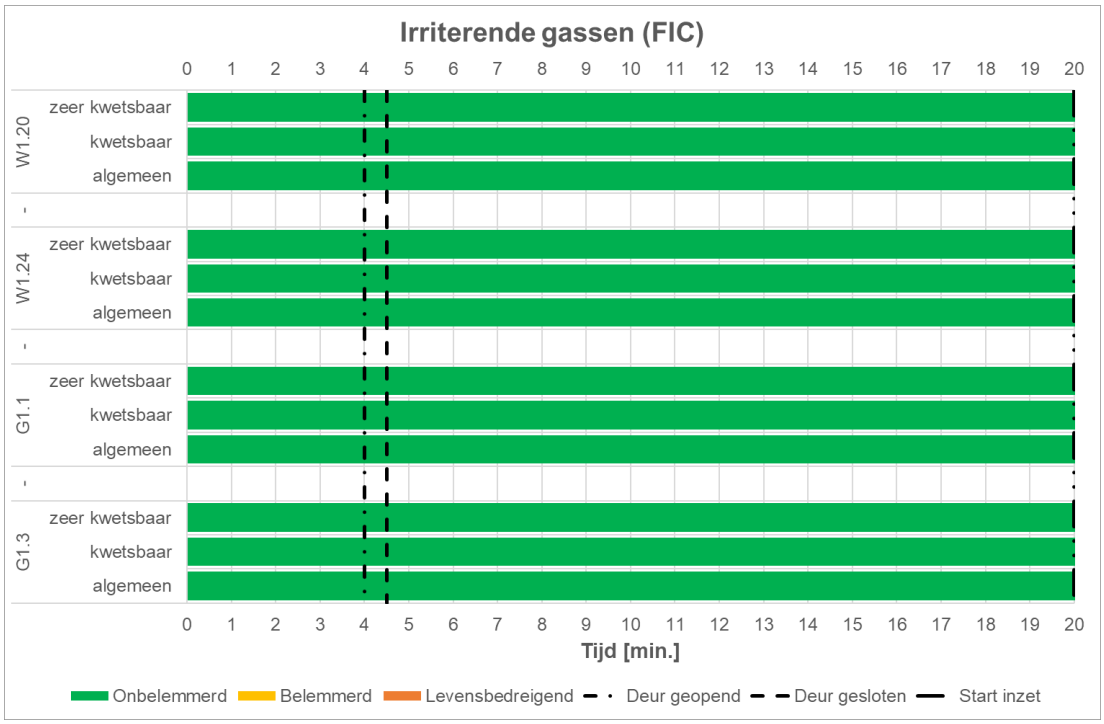


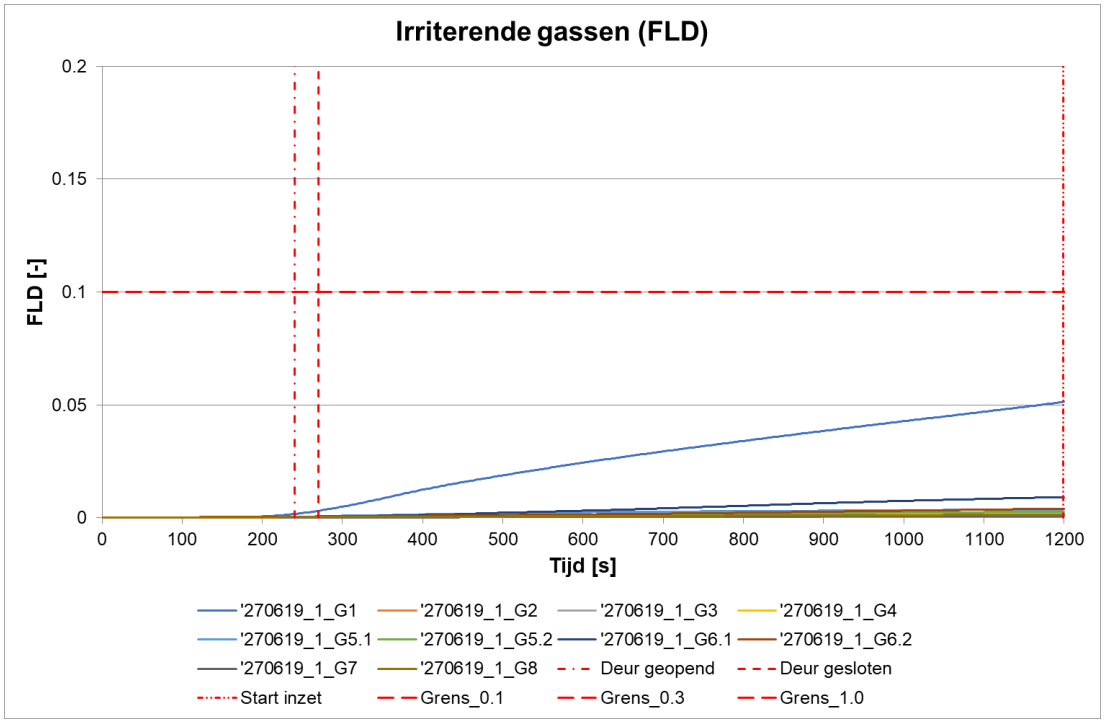
	Irritant gases (FIC)				
	Group	Threshold [-]	Safe [min.]	Impaired [min.]	Life-threatening [min.]
Fire room 1.21 G1	Highly vulnerable	0.1/0.5	3.0	5.2	> 5.2
	Vulnerable	0.3/1.5	4.0	> 55.0	-
	General	1.0/5.0	> 55.0	-	-
Residence 1.20 G2	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Residence 1.24 G3	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-

Residence 1.25 G4	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.5	4.6	> 55.0	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.5	5.4	> 55.0	-
	Vulnerable	0.3/1.5	> 55.0	-	
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-


Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G5.1)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.1)
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Deur gesloten
Start inzet

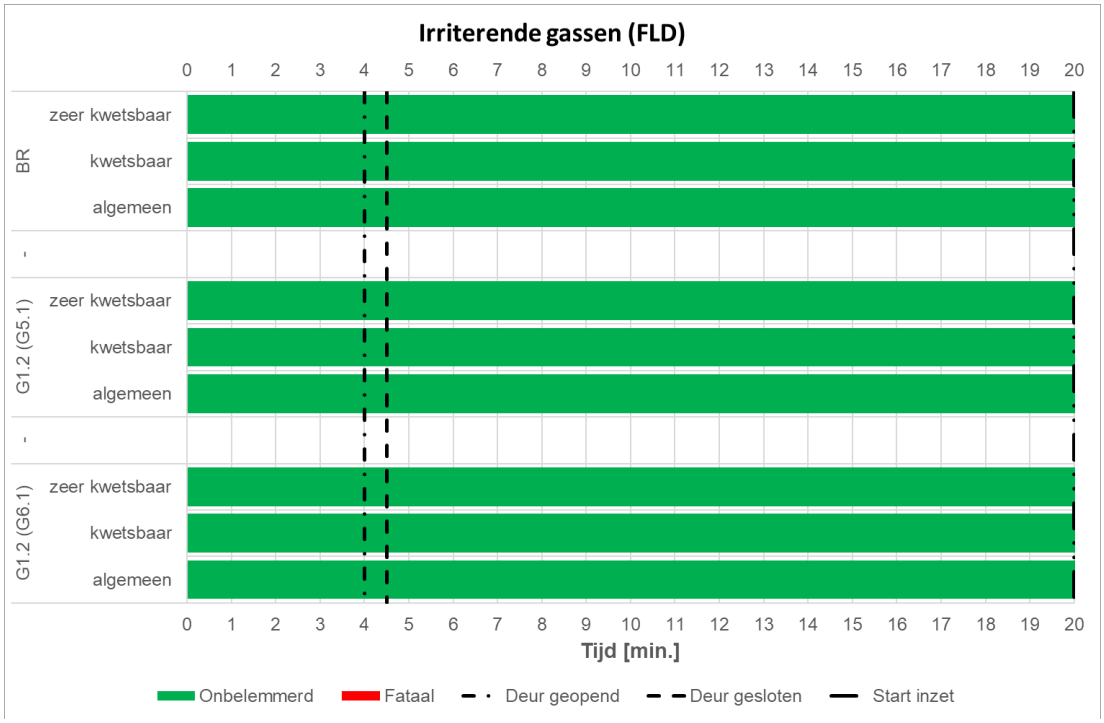

Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Deur gesloten
Start inzet


Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Deur gesloten
Start inzet

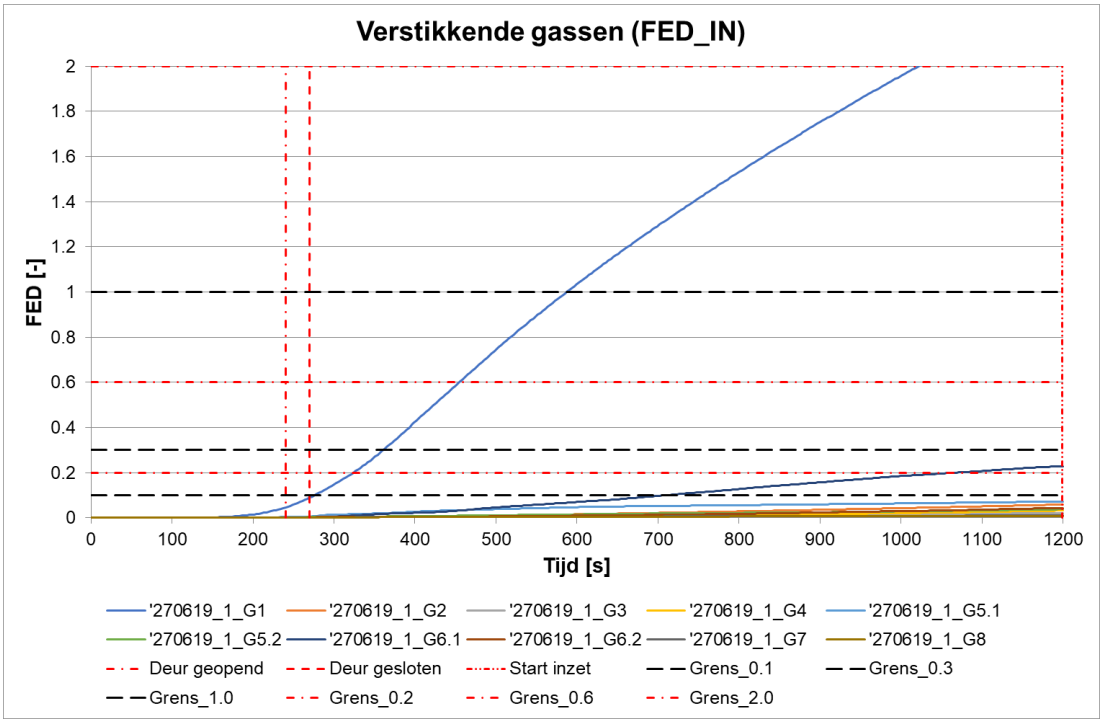

Irriterende gassen (FLD)
FLD [-]
0.2
0.15
0.1
0.05
0
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
Tijd [s]
'270619_1_G1
'270619_1_G2
'270619_1_G3
'270619_1_G4
'270619_1_G5.1
'270619_1_G5.2
'270619_1_G6.1
'270619_1_G6.2
'270619_1_G7
'270619_1_G8
Deur geopend
Deur gesloten
Start inzet
Grens_0.1
Grens_0.3
Grens_1.0

Irritant gases (FLD)				
	Group	Threshold [-]	Safe [min.]	Impaired [min.]
Fire room 1.21 G1	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.20 G2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.24 G3	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.25 G4	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G5.1	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G5.2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G6.1	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-

	General	1.0	> 55.0	-
Corridor 1.2 G6.2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.1 G7	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.3 G8	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-

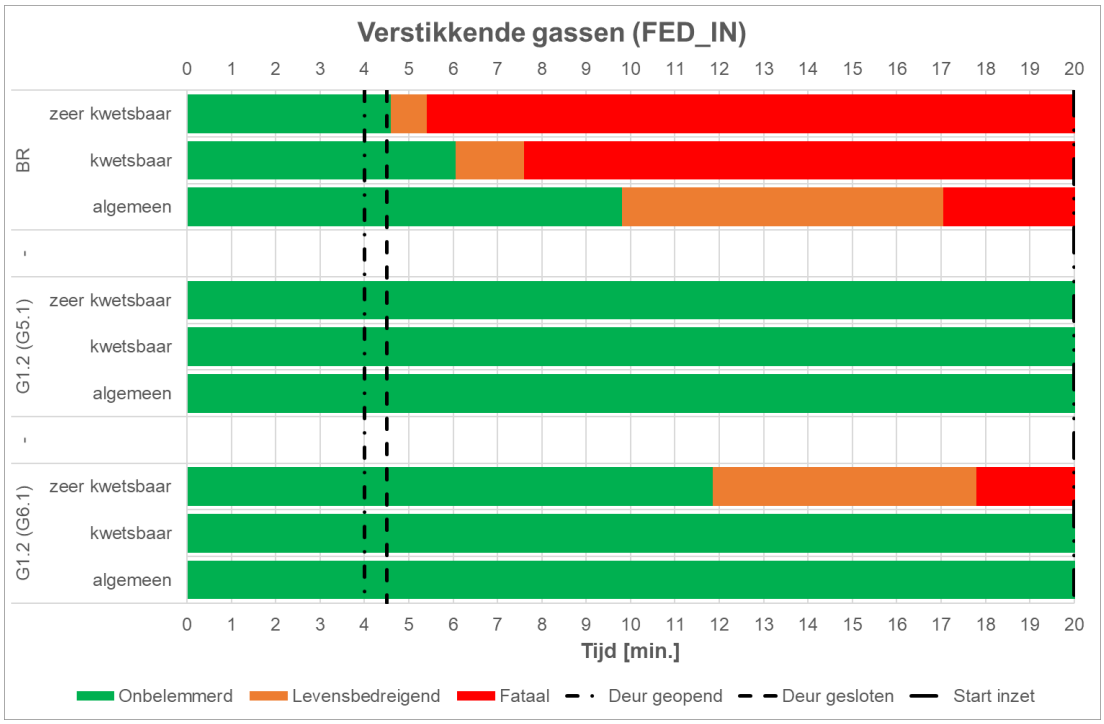


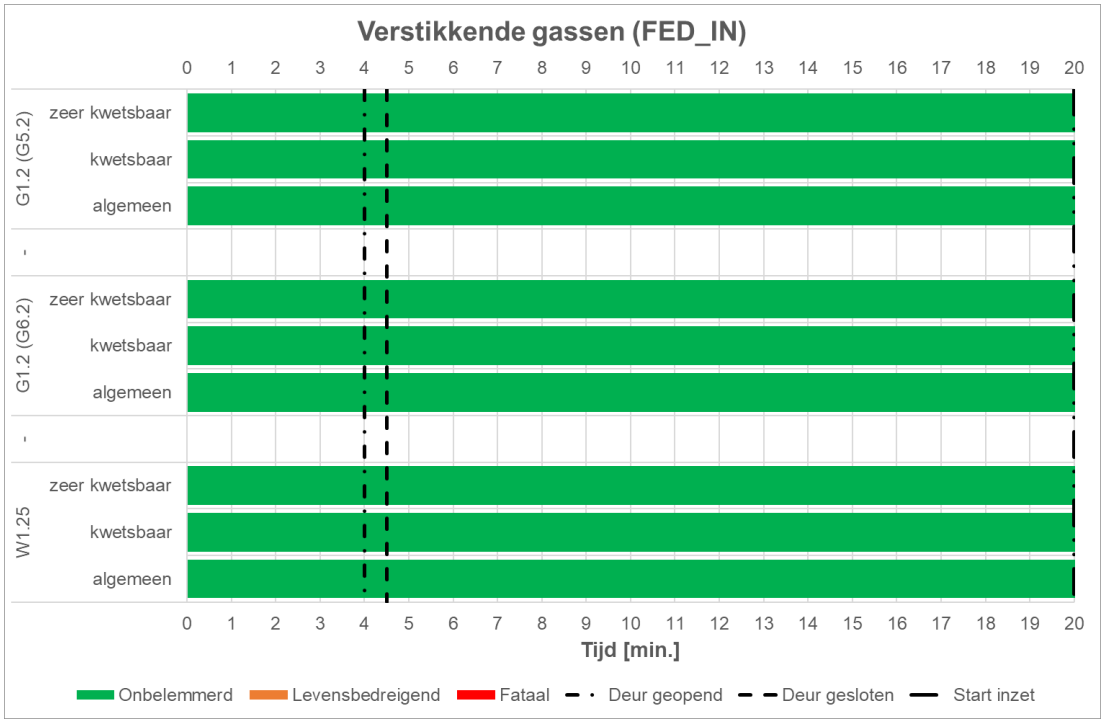
Asphyxiant gases

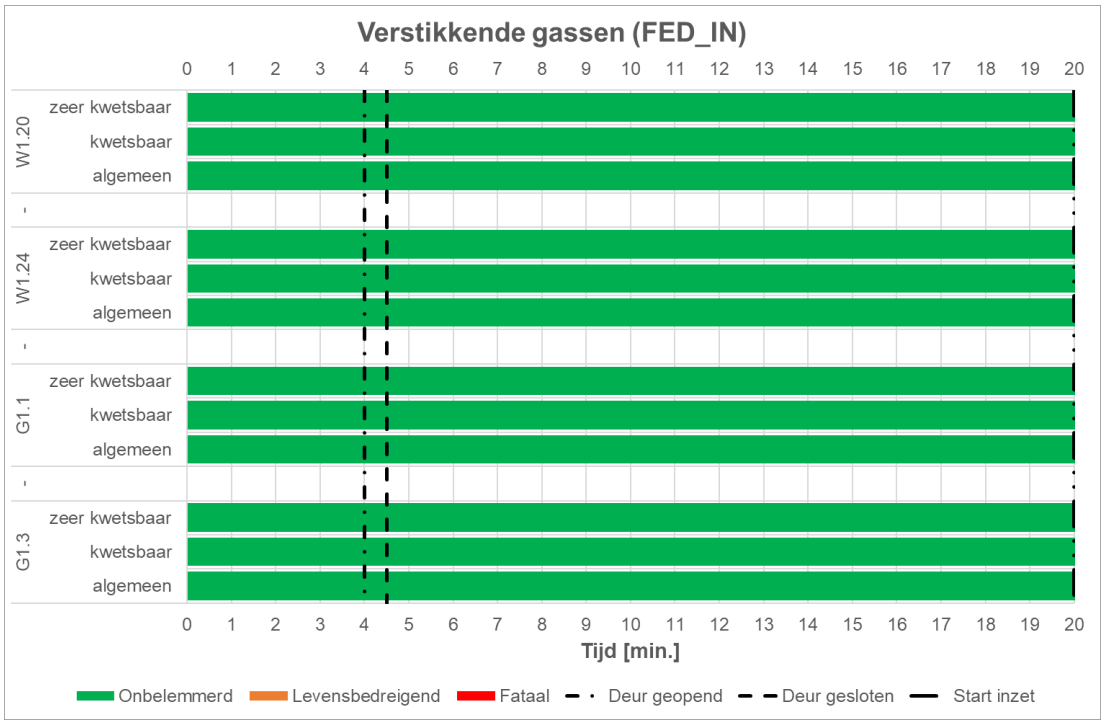


		Asphyxiant gases (FED_IN)			
	Group	Threshold [-]	Safe [min.]	Life-threatening [min.]	Fatal [min.]
Fire room 1.21 G1	Highly vulnerable	0.1/0.2	4.6	5.4	> 5.4
	Vulnerable	0.3/0.6	6.1	7.6	> 7.6
	General	1.0/2.0	9.8	17.1	> 17.1
Residence 1.20 G2	Highly vulnerable	0.1/0.2	26.0	> 55.0	-
	Vulnerable	0.3/0.6	> 55.0	-	-
	General	1.0/2.0	> 55.0	-	-
Residence 1.24 G3	Highly vulnerable	0.1/0.2	30.8	> 55.0	-
	Vulnerable	0.3/0.6	> 55.0	-	-
	General	1.0/2.0	> 55.0	-	-
Residence 1.25	Highly vulnerable	0.1/0.2	29.3	37.2	> 37.2

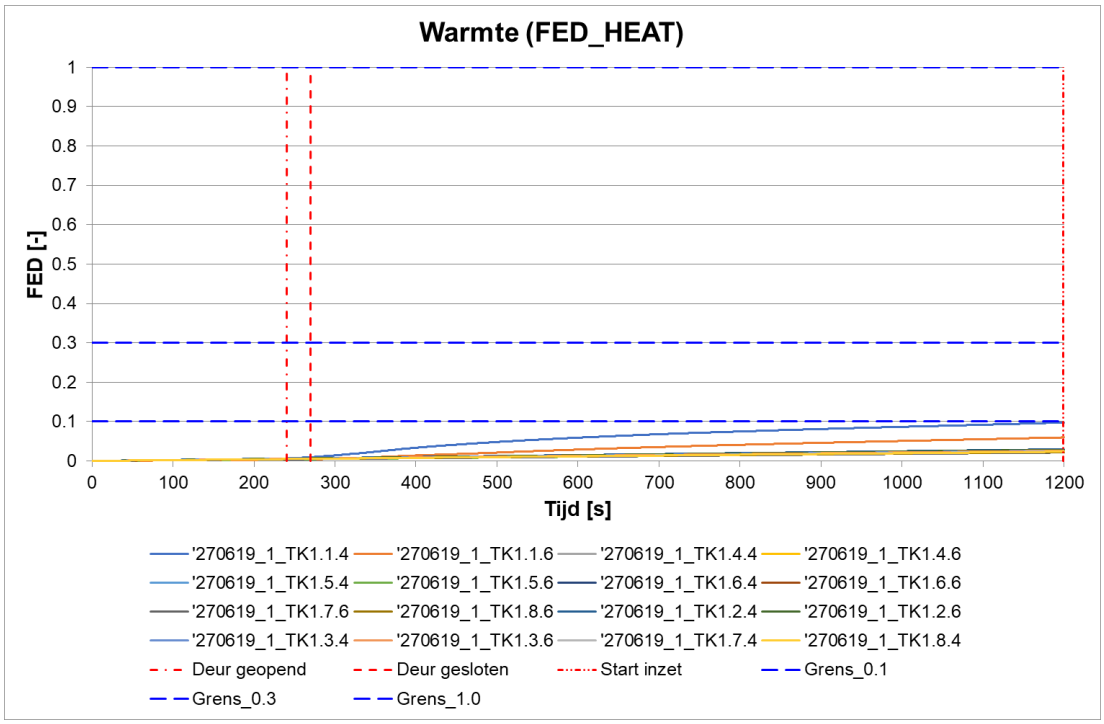
G4	Vulnerable	0.3/0.6	47.6	> 55.0	-
	General	1.0/2.0	> 55.0	-	-
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.2	22.7	25.1	> 25.1
	Vulnerable	0.3/0.6	29.0	> 55.0	-
	General	1.0/2.0	> 55.0	-	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.2	26.6	34.8	> 34.8
	Vulnerable	0.3/0.6	> 55.0	-	-
	General	1.0/2.0	> 55.0	-	-
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.2	11.9	17.8	> 17.8
	Vulnerable	0.3/0.6	25.4	> 55.0	-
	General	1.0/2.0	> 55.0	-	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.2	26.7	32.7	> 32.7
	Vulnerable	0.3/0.6	> 55.0	-	-
	General	1.0/2.0	> 55.0	-	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.2	43.3	54.6	> 54.6
	Vulnerable	0.3/0.6	> 55.0	-	-
	General	1.0/2.0	> 55.0	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.2	> 55.0	-	-
	Vulnerable	0.3/0.6	> 55.0	-	-
	General	1.0/2.0	> 55.0	-	-


Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G5.1)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.1)
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet


Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

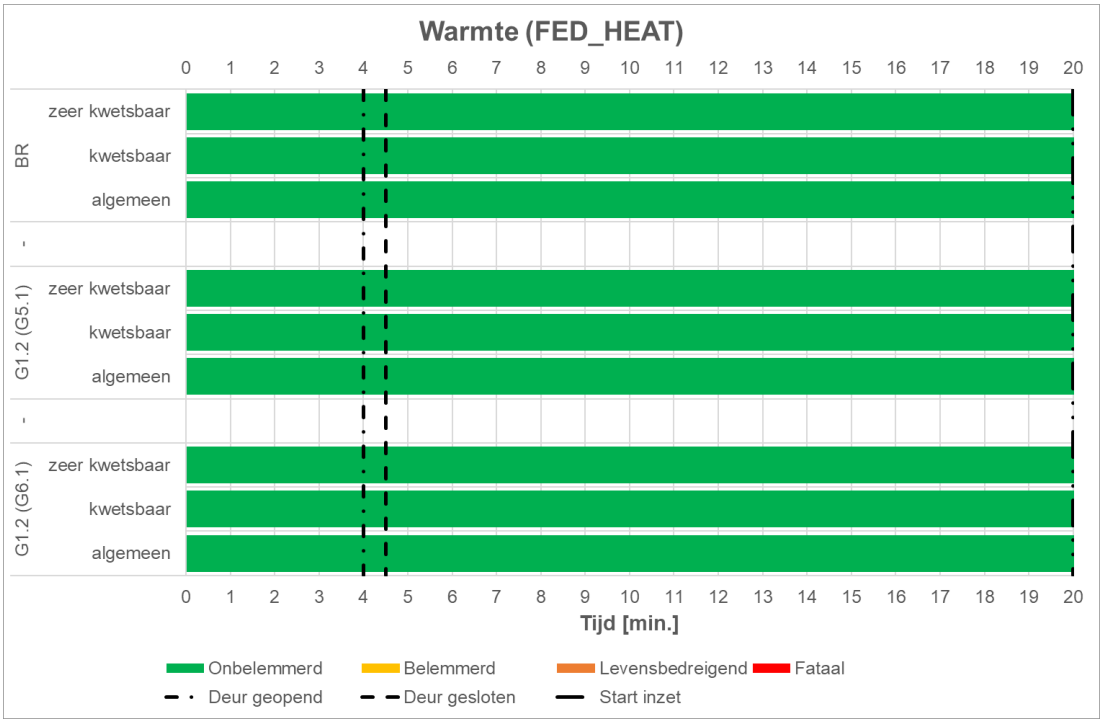

Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

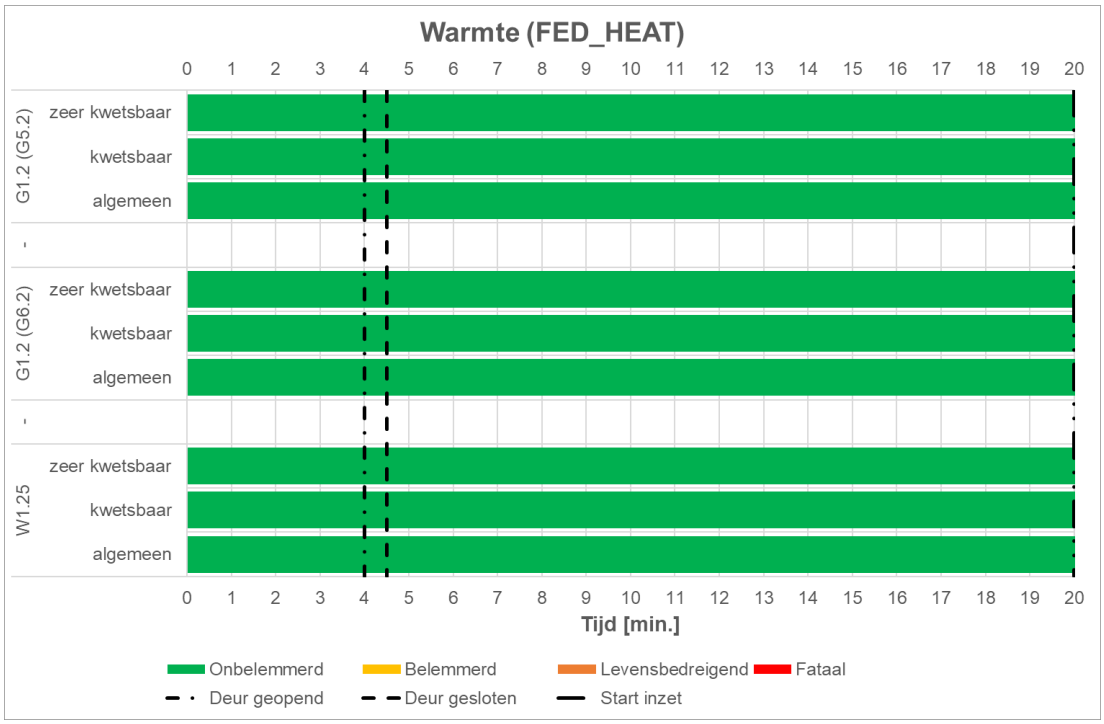
Heat

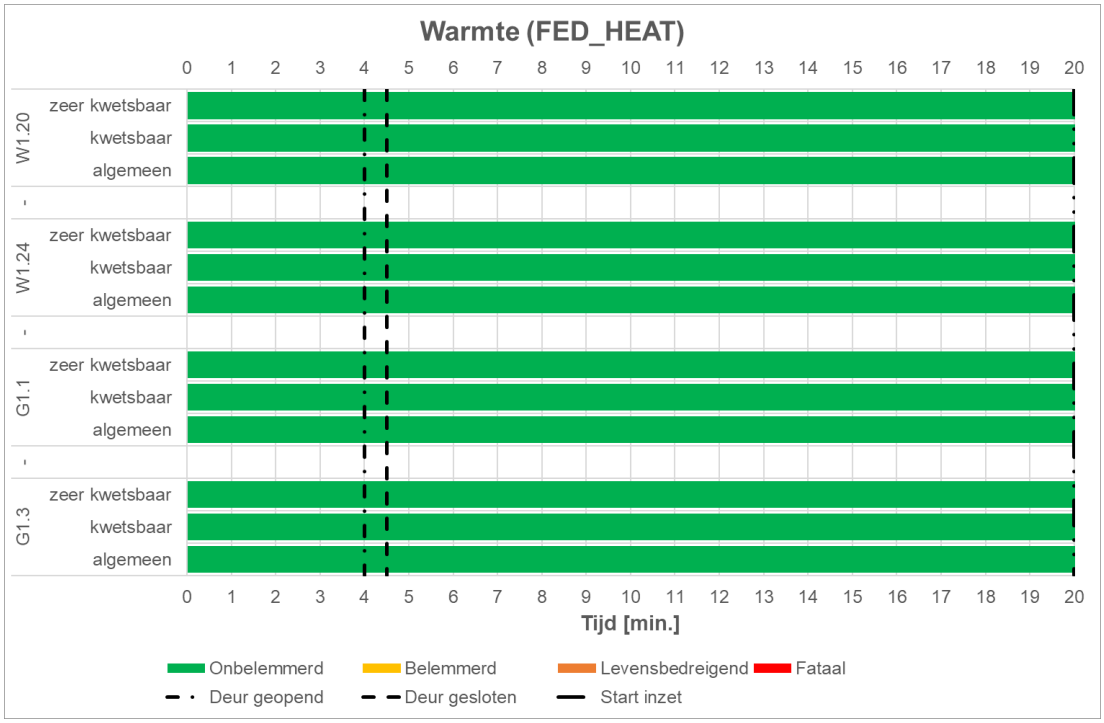

Warmte (FED_HEAT)
FED [-]
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
Tijd [s]
'270619_1_TK1.1.4
'270619_1_TK1.1.6
'270619_1_TK1.4.4
'270619_1_TK1.4.6
'270619_1_TK1.5.4
'270619_1_TK1.5.6
'270619_1_TK1.6.4
'270619_1_TK1.6.6
'270619_1_TK1.7.6
'270619_1_TK1.8.6
'270619_1_TK1.2.4
'270619_1_TK1.2.6
'270619_1_TK1.3.4
'270619_1_TK1.3.6
'270619_1_TK1.7.4
'270619_1_TK1.8.4
Deur geopend
Deur gesloten
Start inzet
Grens_0.1
Grens_0.3
Grens_1.0

Heat (FED_HEAT)						
	Group	Threshold [-]	Safe [min.]	Impaired [min.]	Life-threatening [min.]	Fatal [min.
Fire room 1.21 G1	Highly vulnerable	0.1/0.8/1.2	20.8	> 55.0	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Residence 1.20 G2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Residence 1.24 G3	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Residence 1.25 G4	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-

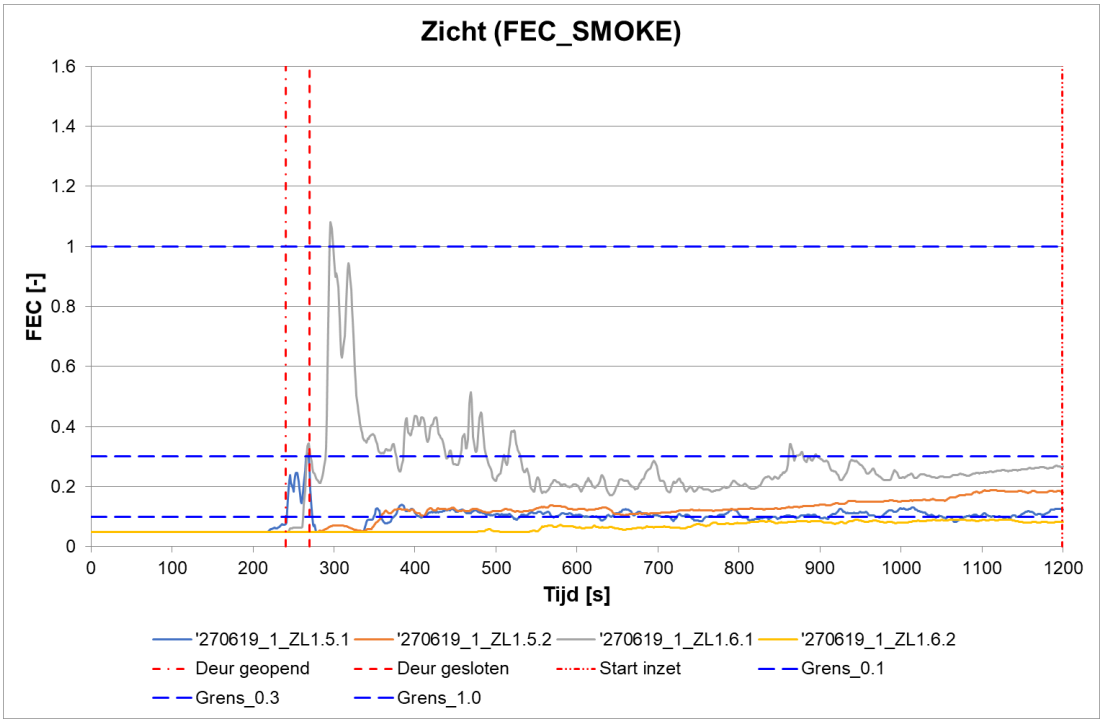
G6.1	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-




Warmte (FED_HEAT)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

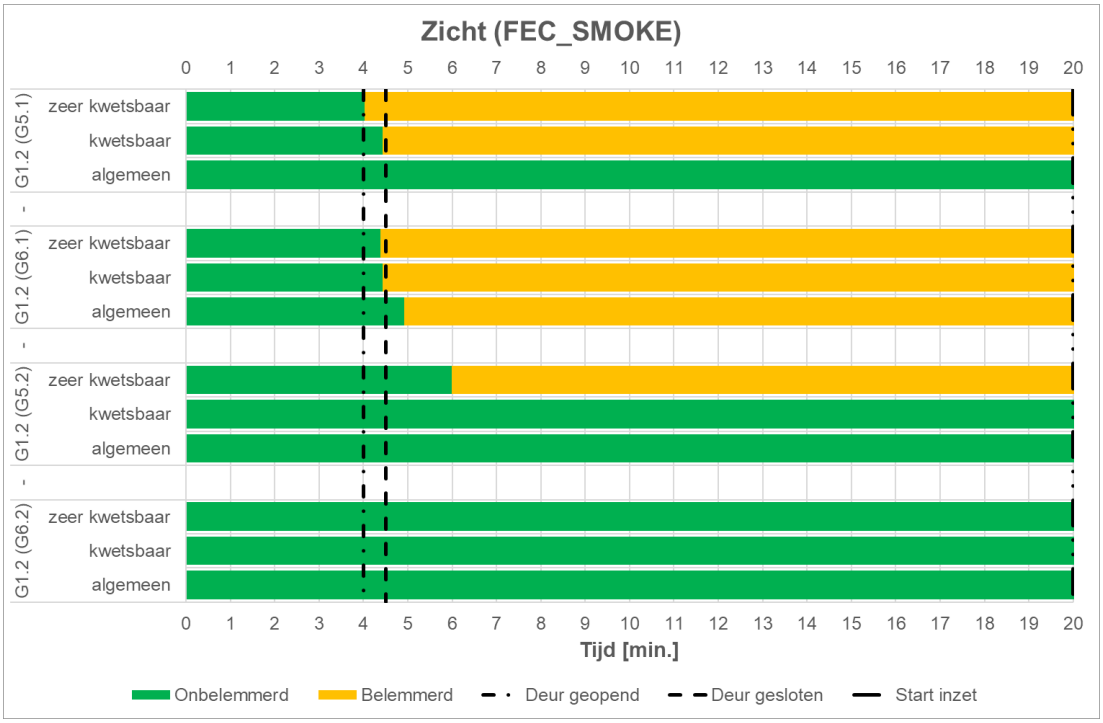

Warmte (FED_HEAT)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

Visibility

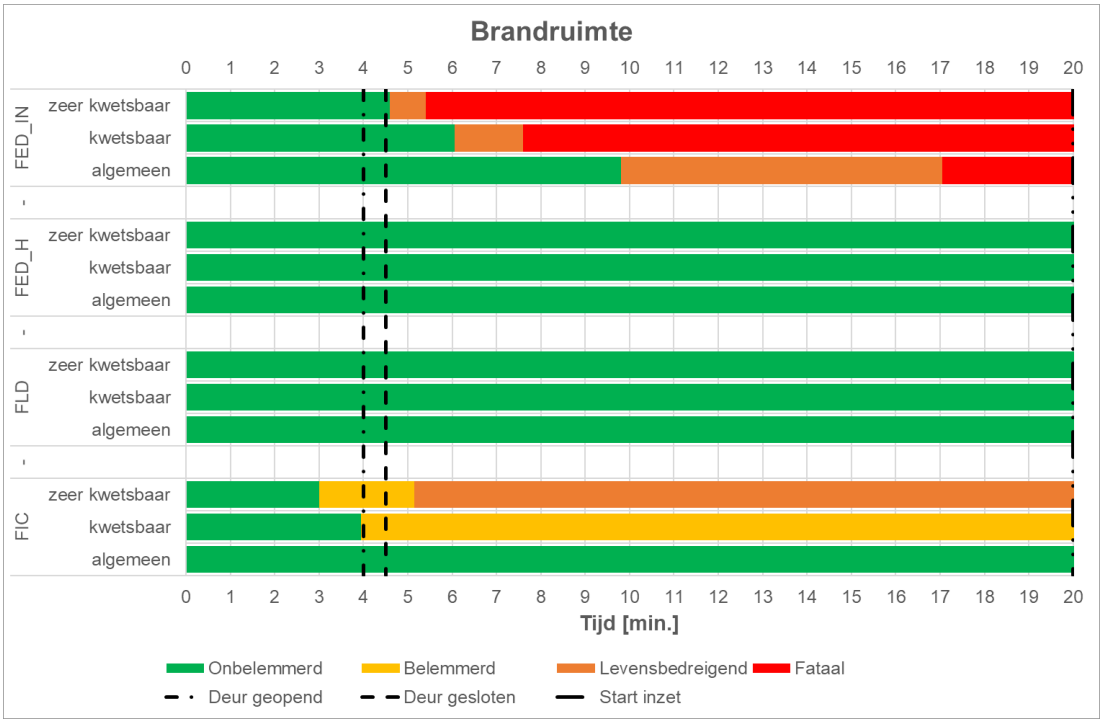


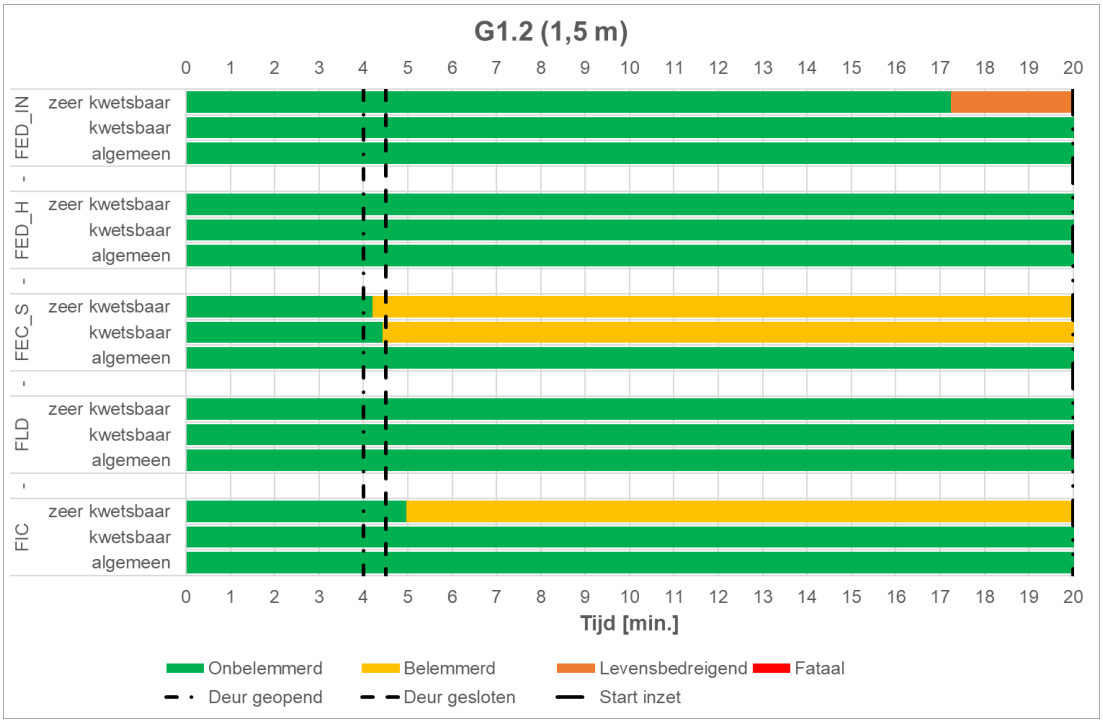
Visibility (FEC_SMOKE)				
	Group	Threshold [-]	Safe [min.]	Impaired [min.]
Corridor 1.2 G5.1	Highly vulnerable	0.1	4.0	> 4.0
	Vulnerable	0.3	4.4	> 4.4
	General	1.0	> 55.0	-
Corridor 1.2 G5.2	Highly vulnerable	0.1	6.0	> 6.0
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G6.1	Highly vulnerable	0.1	4.4	> 4.4
	Vulnerable	0.3	4.4	> 4.4
	General	1.0	4.9	> 4.9

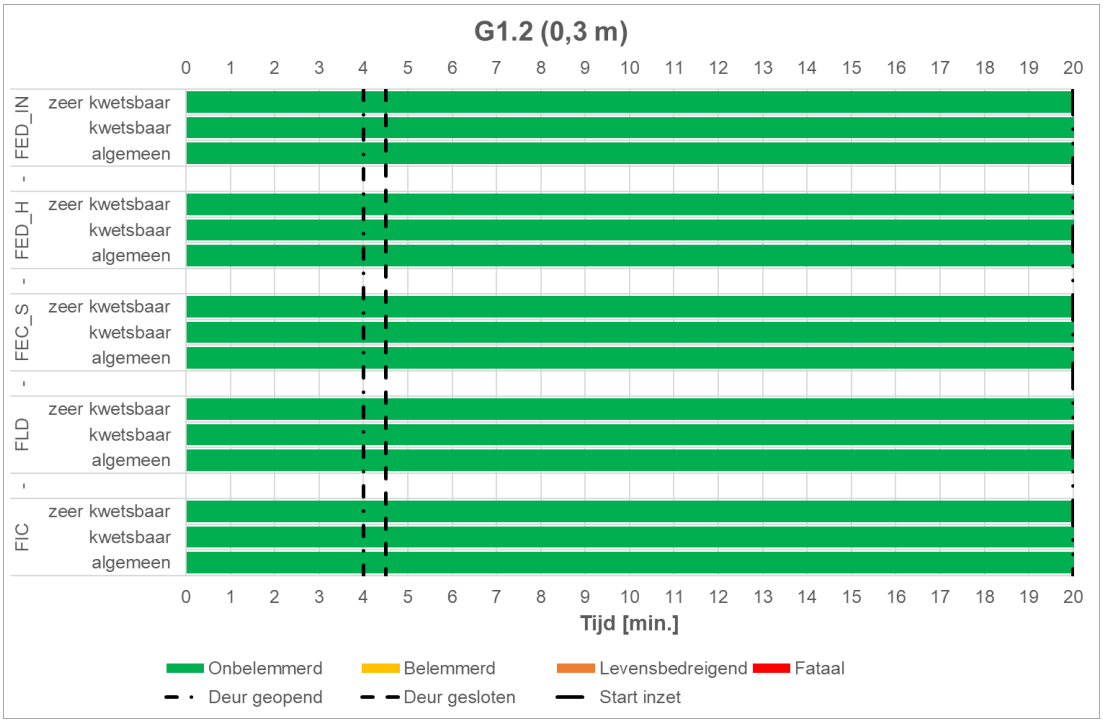
Corridor 1.2 G6.2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-



Overview

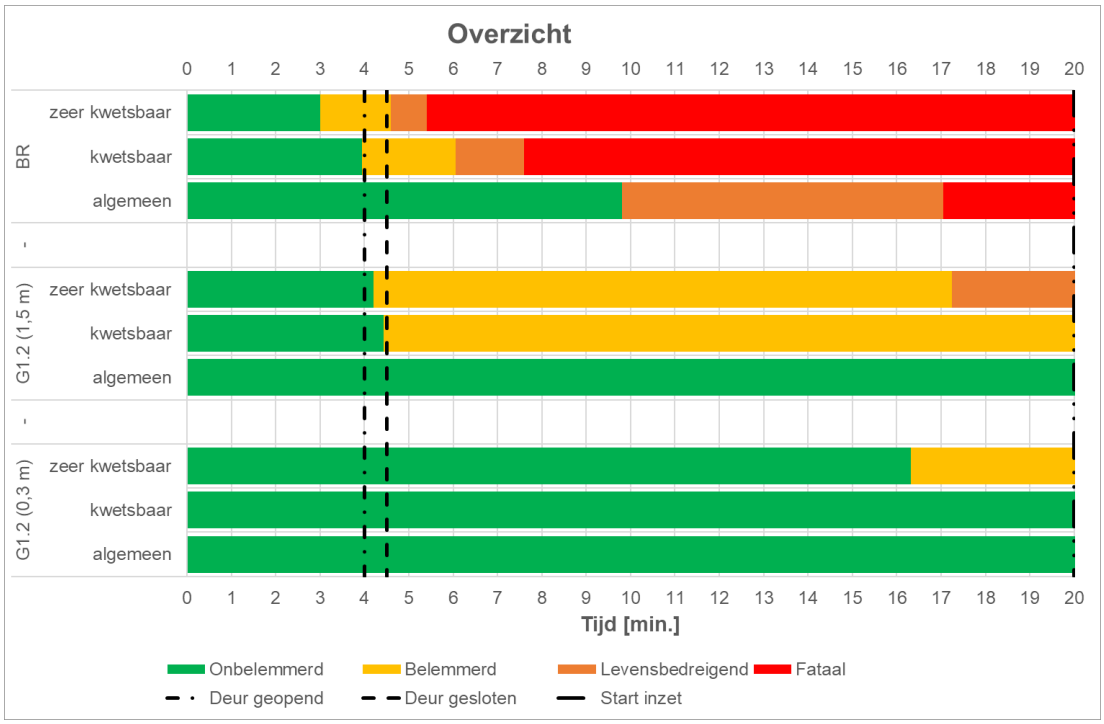


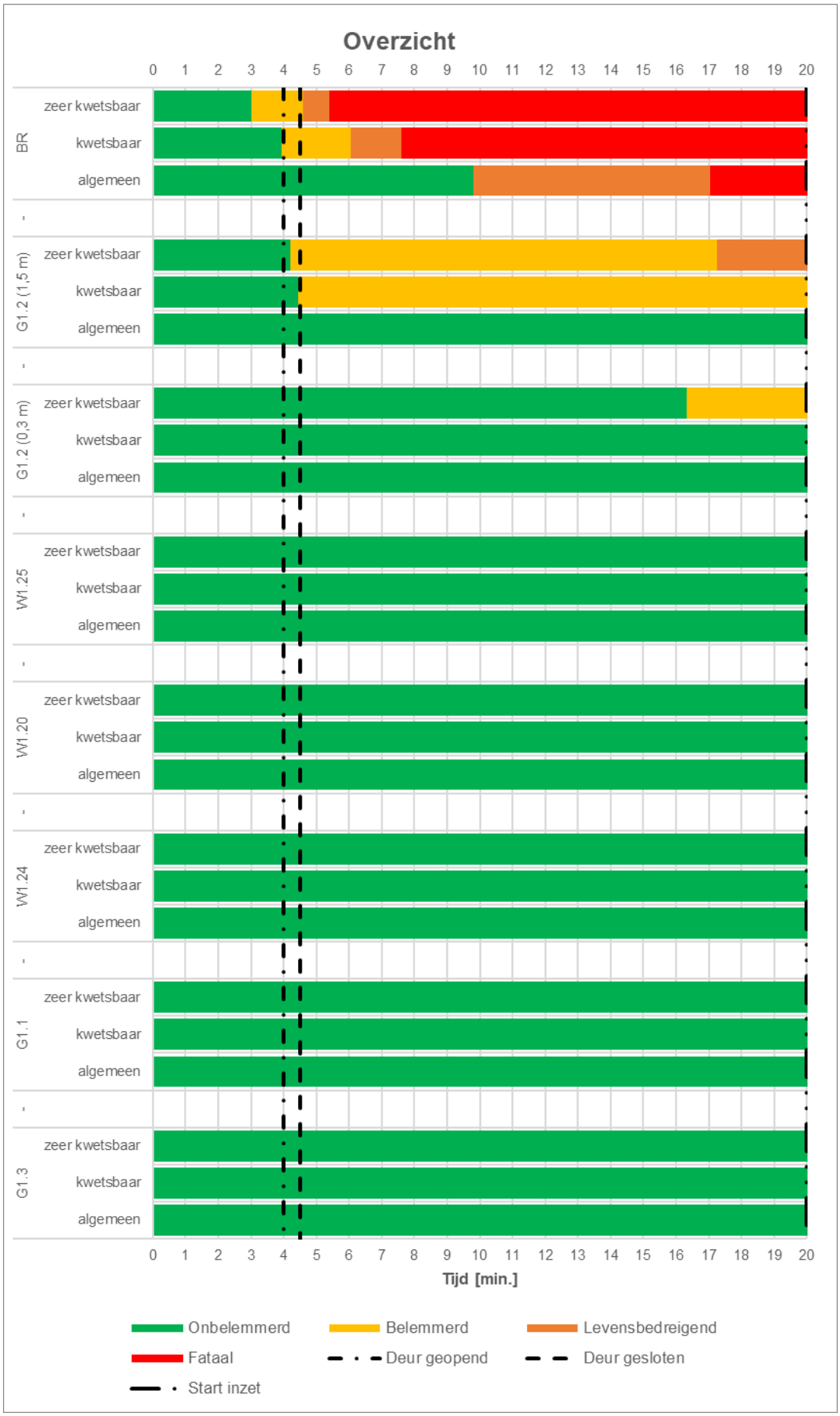

G1.2 (1,5 m)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
FED_IN
FED_H
FEC_S
FLD
FIC
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet


G1.2 (0,3 m)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
FED_IN
FED_H
FEC_S
FLD
FIC
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

	Overview	Escape		Survivability	
	Group	Safe [min.]	Impaired [min.]	Life-threatening [min.]	Fatal [min.]
Fire room 1.21 G1	Highly vulnerable	3.0	4.6	5.4	> 5.4
	Vulnerable	4.0	6.1	7.6	> 7.6
	General	9.8	9.8	17.1	> 17.1
Residence 1.20 G2	Highly vulnerable	26.0	26.0	> 55.0	-
	Vulnerable	> 55.0	-	-	-
	General	> 55.0	-	-	-
Residence 1.24 G3	Highly vulnerable	30.8	30.8	> 55.0	
	Vulnerable	> 55.0	-	-	-
	General	> 55.0	-	-	-
Residence 1.25 G4	Highly vulnerable	29.3	29.3	37.2	> 37.2
	Vulnerable	47.6	47.6	> 55.0	-
	General	> 55.0	-	-	-
Corridor 1.2 G5.1	Highly vulnerable	4.0	22.7	25.1	> 25.1
	Vulnerable	4.4	29.0	> 55.0	-
	General	> 55.0	-	-	-
Corridor 1.2 G5.2	Highly vulnerable	6.0	26.6	34.8	> 34.8
	Vulnerable	> 55.0	-	-	-
	General	> 55.0	-	-	-
Corridor 1.2	Highly vulnerable	4.4	11.9	17.8	> 17.8

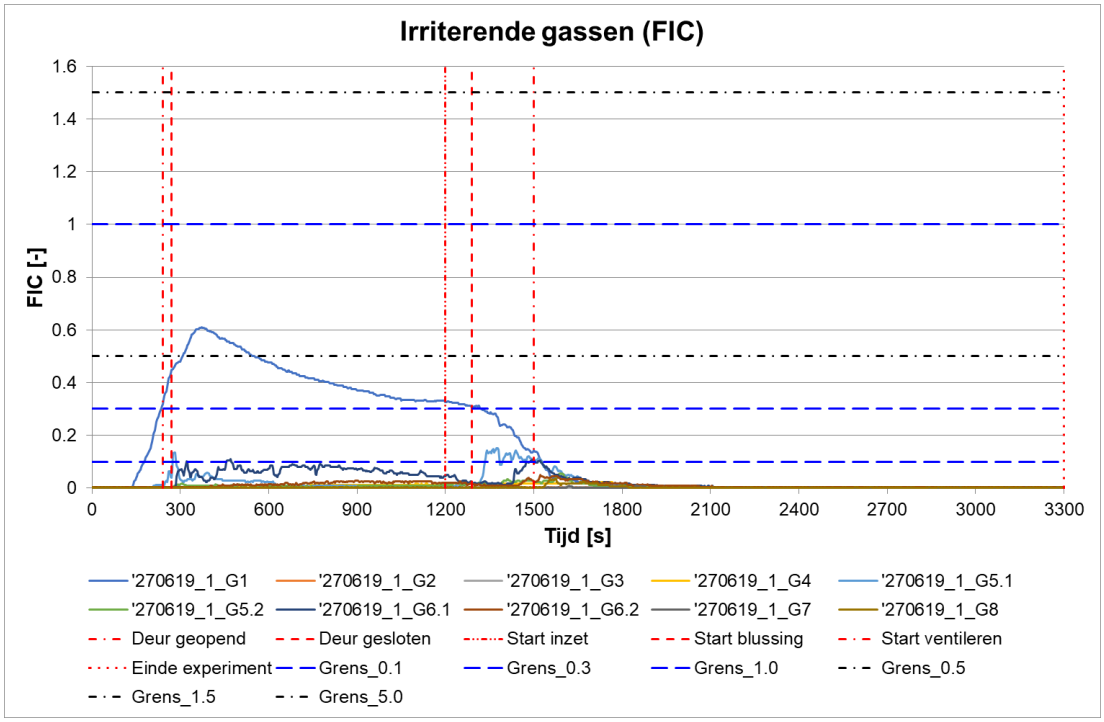
G6.1	Vulnerable	4.4	25.4	> 55.0	-
	General	4.9	> 55.0	-	-
Corridor 1.2 G6.2	Highly vulnerable	26.7	26.7	32.7	> 32.7
	Vulnerable	> 55.0	-	-	-
	General	> 55.0	-	-	-
Corridor 1.1 G7	Highly vulnerable	43.3	43.3	54.6	> 54.6
	Vulnerable	> 55.0	-	-	-
	General	> 55.0	-	-	-
Corridor 1.3 G8	Highly vulnerable	> 55.0	-	-	-
	Vulnerable	> 55.0	-	-	-
	General	> 55.0	-	-	-

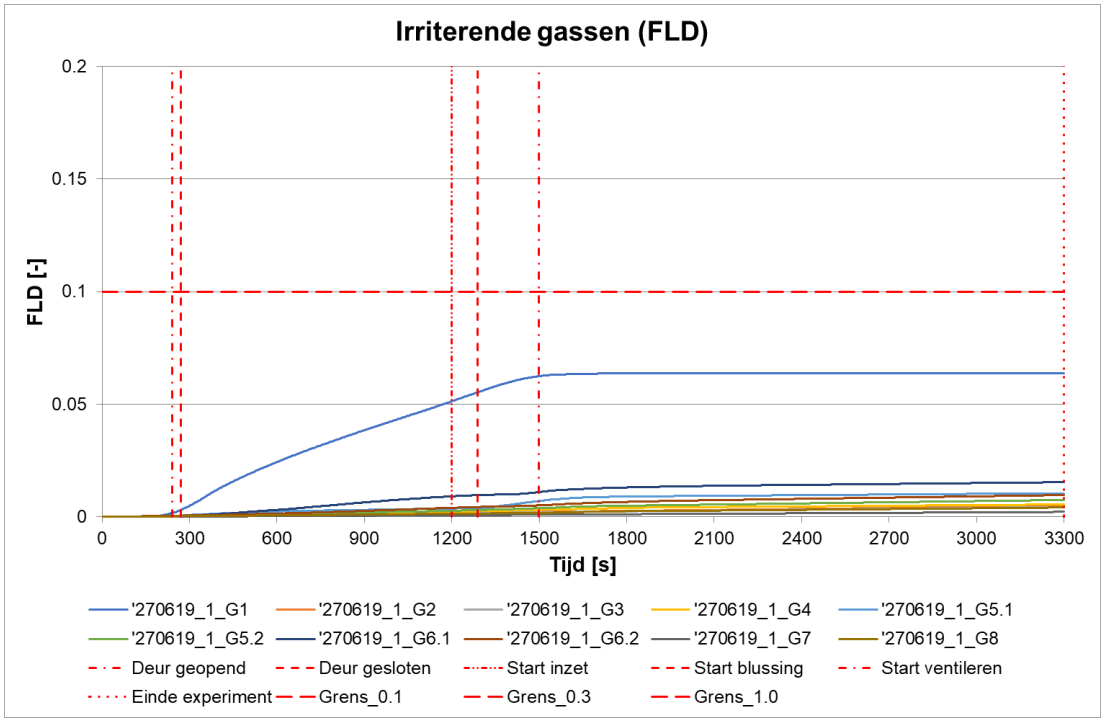



Overzicht
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (1,5 m)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (0,3 m)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

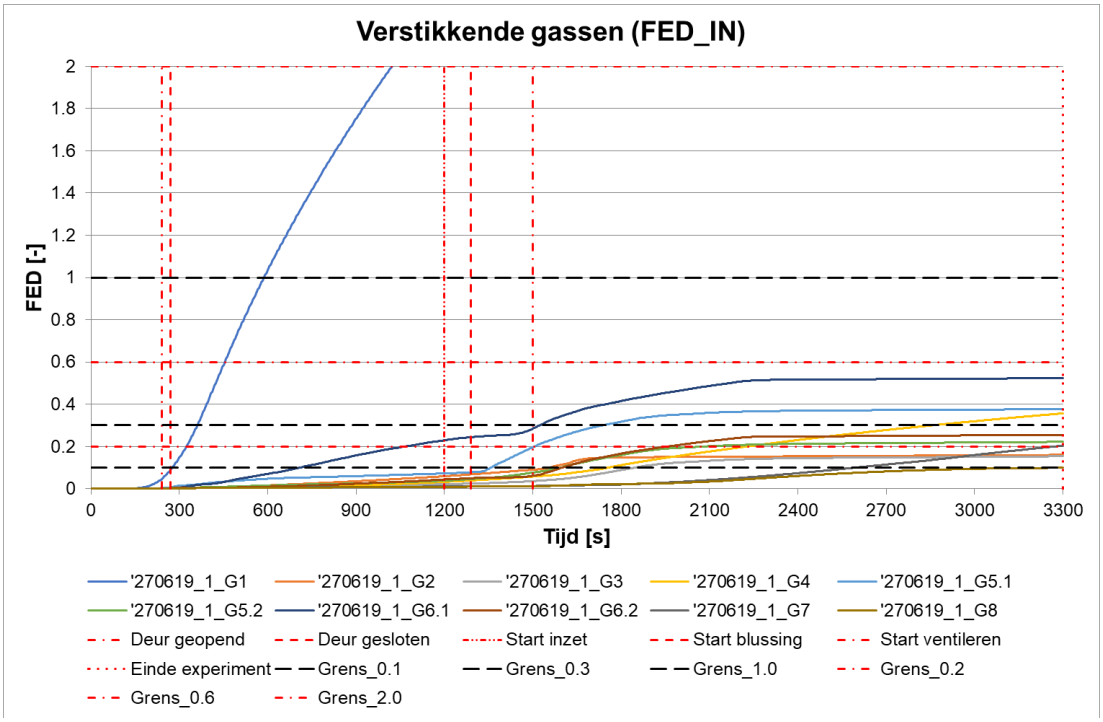
C. Deployment phase (20 - 55 minutes)

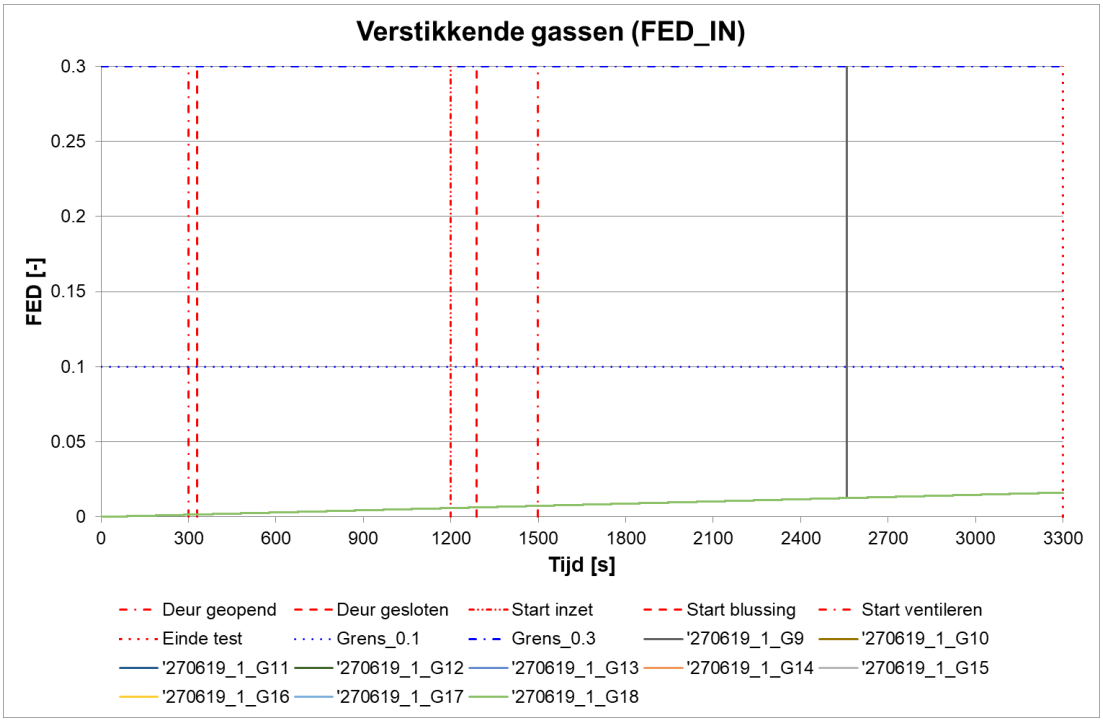
Irritant gases



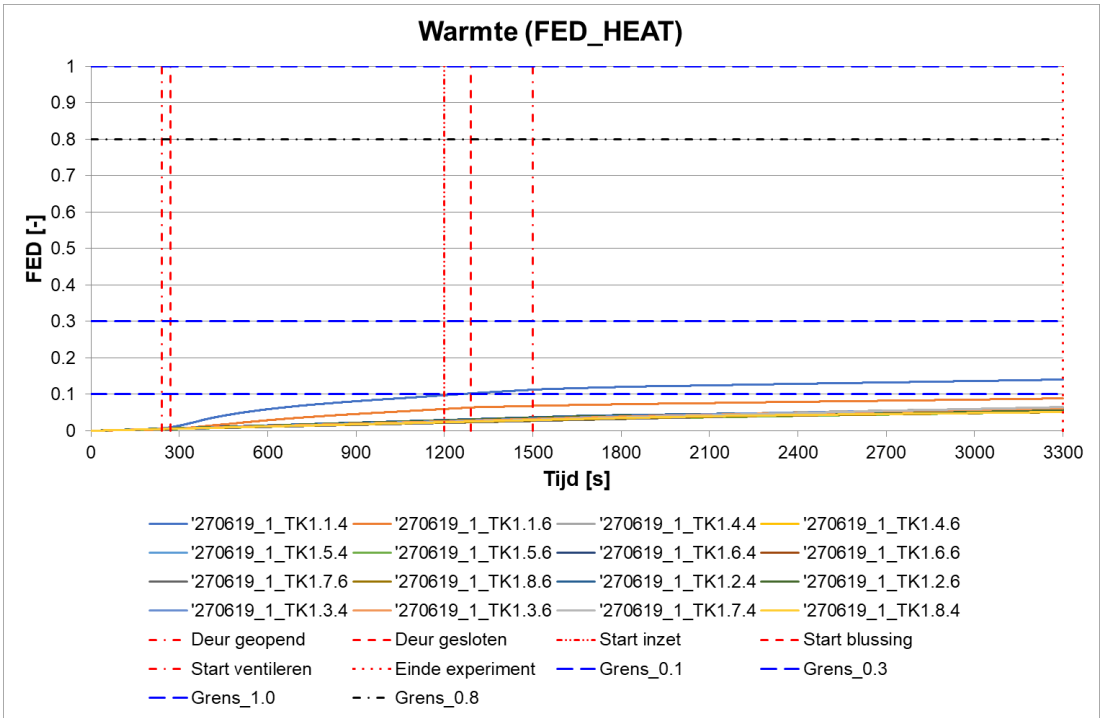


Asphyxiant gases

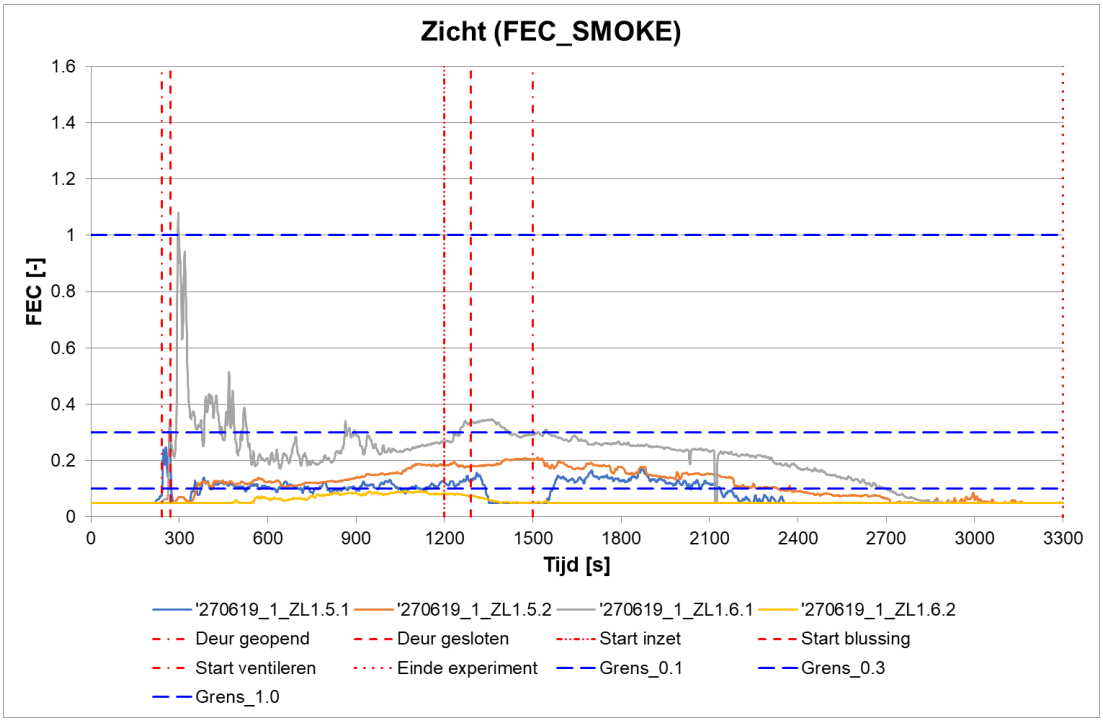




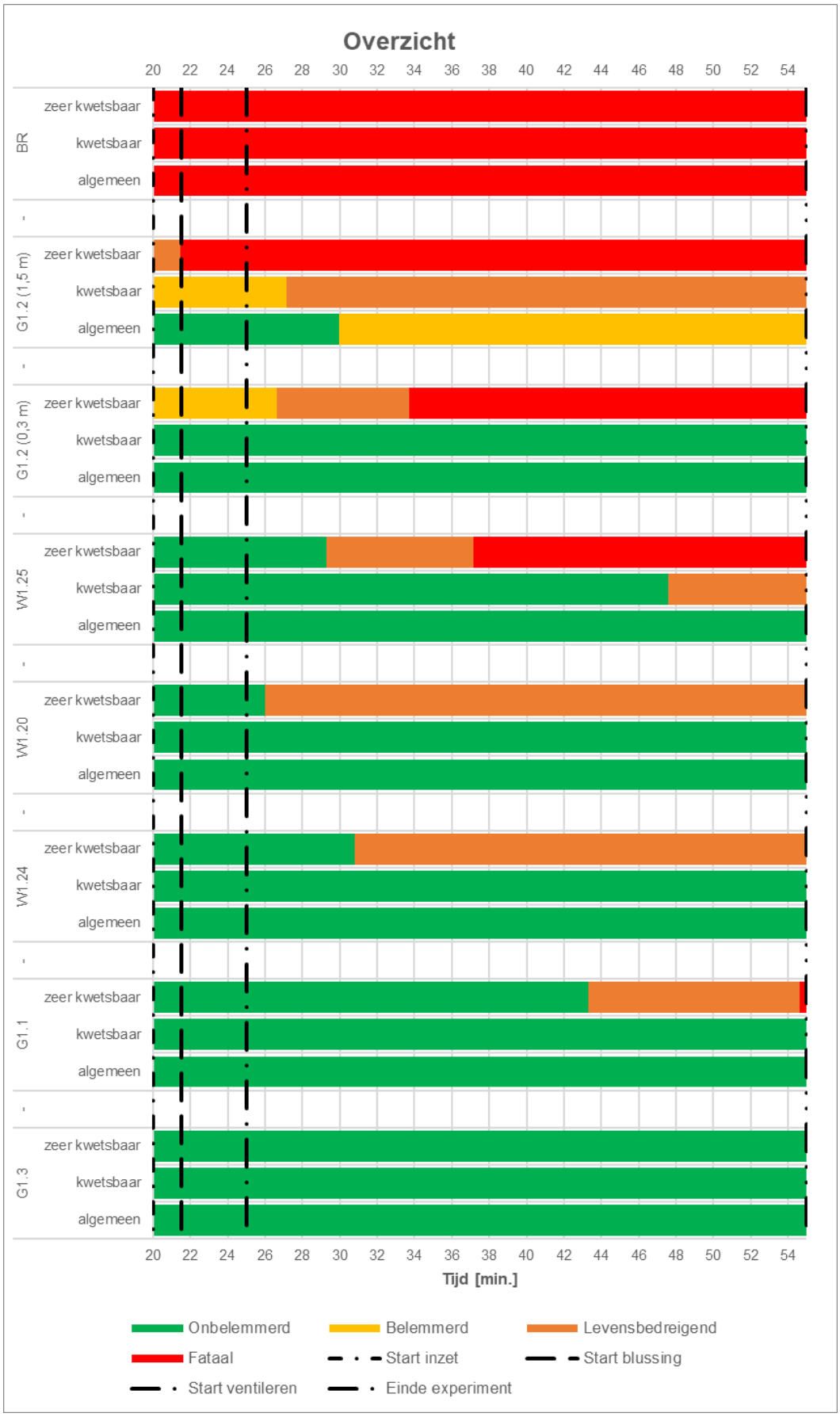
Heat



Visibility



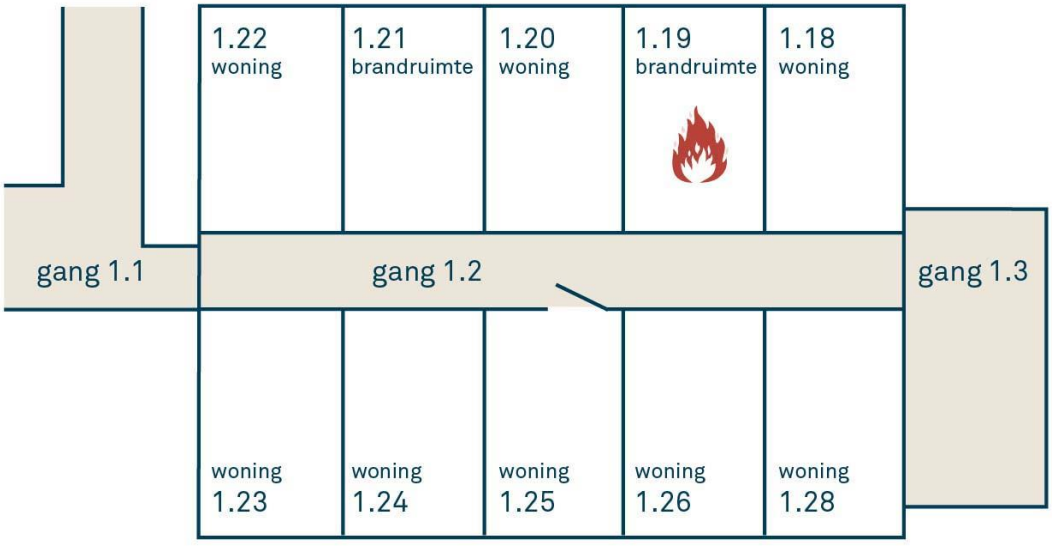
Overview


Overzicht
20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (1,5 m)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (0,3 m)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Start inzet
Start blussing
Start ventileren
Einde experiment

Test 7 (variant 2: mobile water mist and door open) 27/06/19

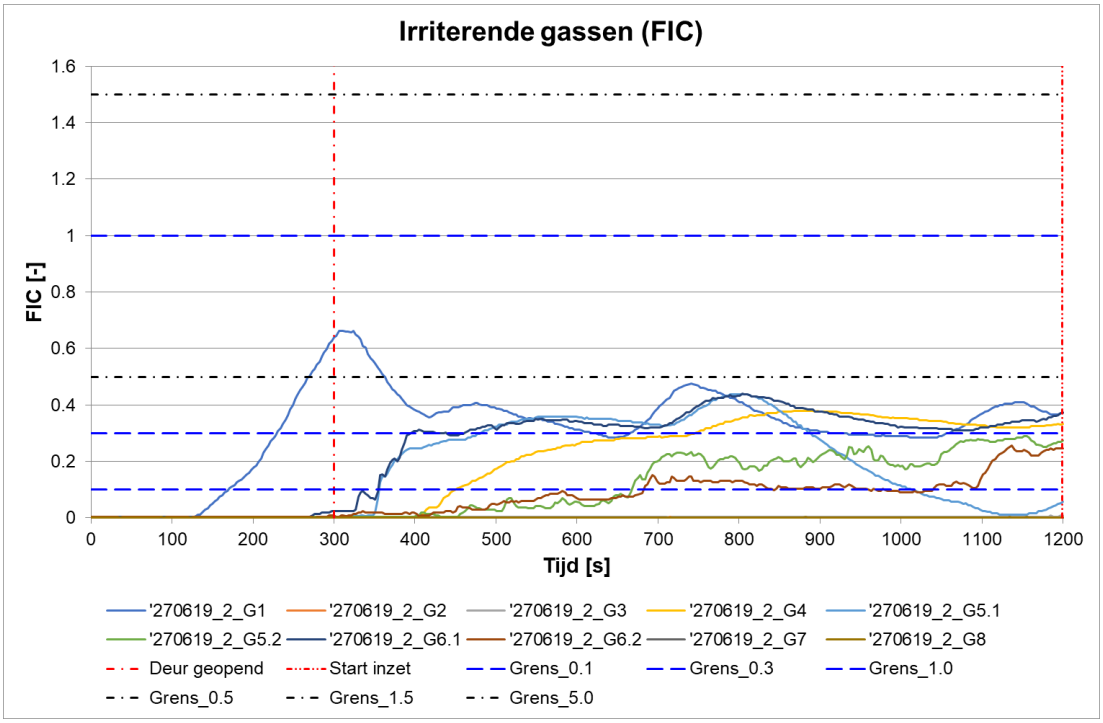
A. Description of the test

Test number	7
Date	27/06/2019
Morning / afternoon	Afternoon
Fire room	1.19
Door to the fire room open / closed	Open
Fire service deployment	Defensive interior attack
Extra measures	Mobile water mist
Specific aspects	Mobile water mist was activated 1 minute and 52 seconds after the start of the test. Gas measurement in fire room temporarily failed to provide useful readings. Camera A3 on the ground floor failed. Window in residence 1.25 was opened approx. 2 minutes later while ventilating (45 min. 45 sec. instead of after 43 min. 30 sec.).



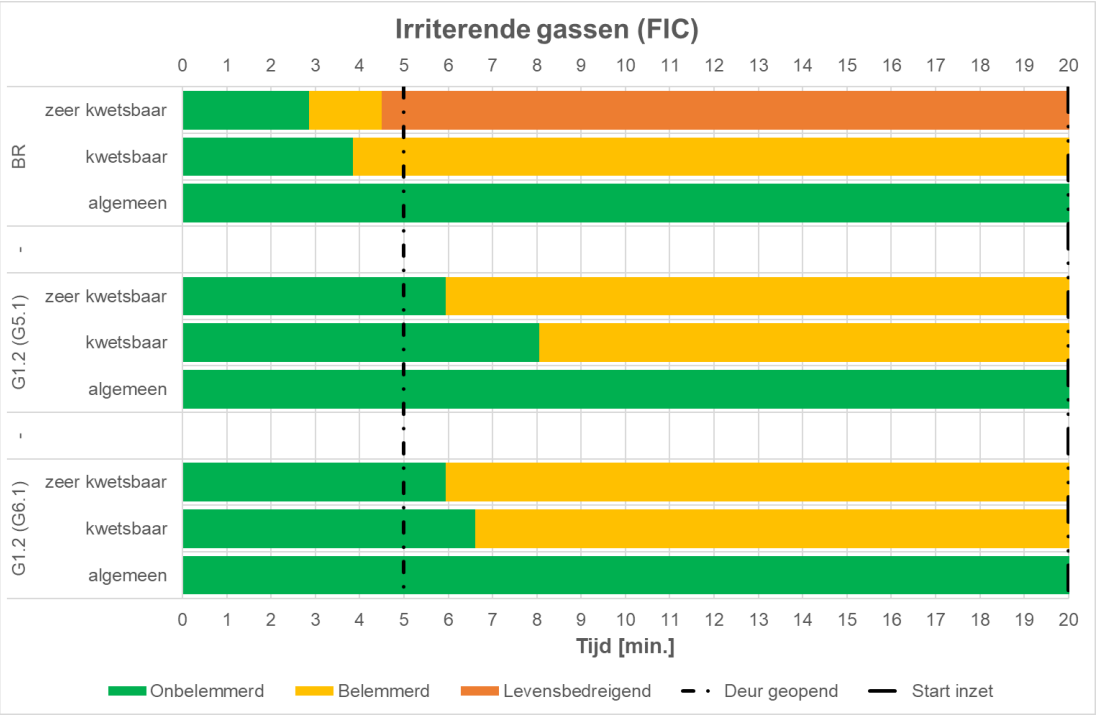
B. Escape phase (0 - 20 minutes)

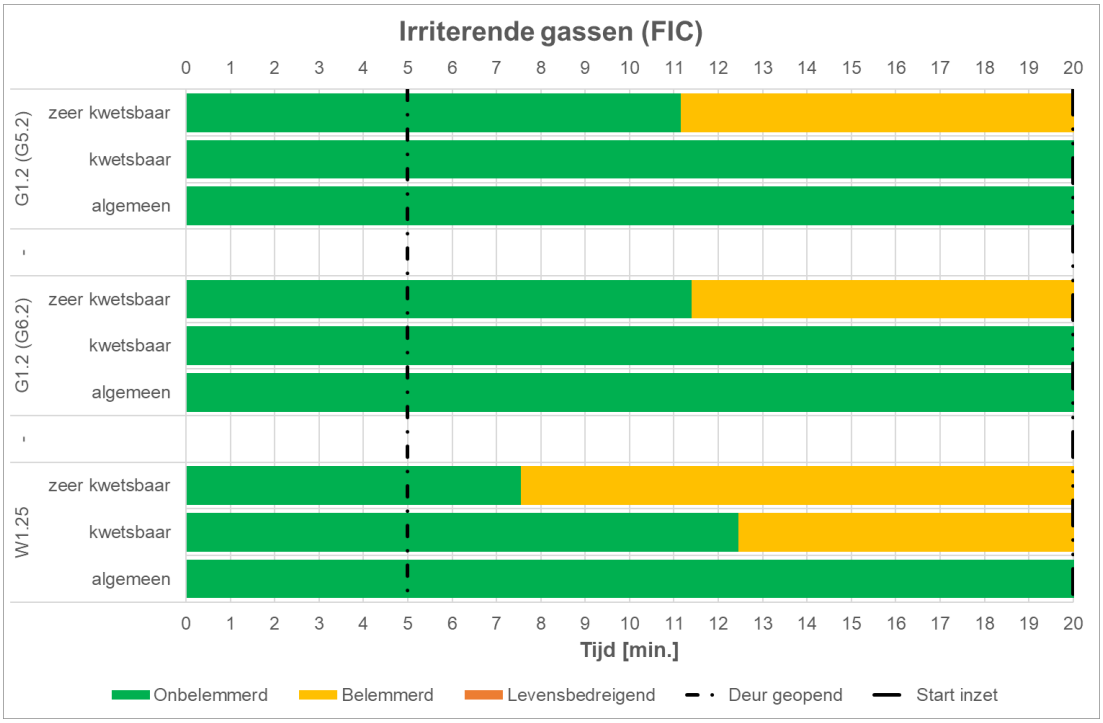
Irritant gases

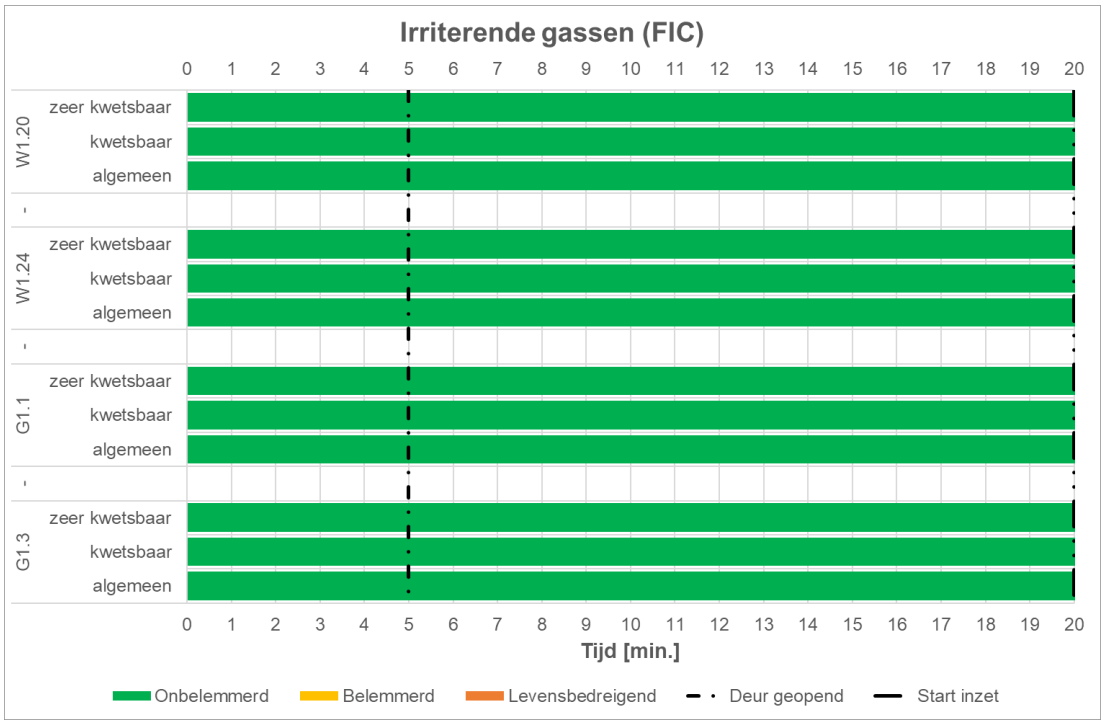


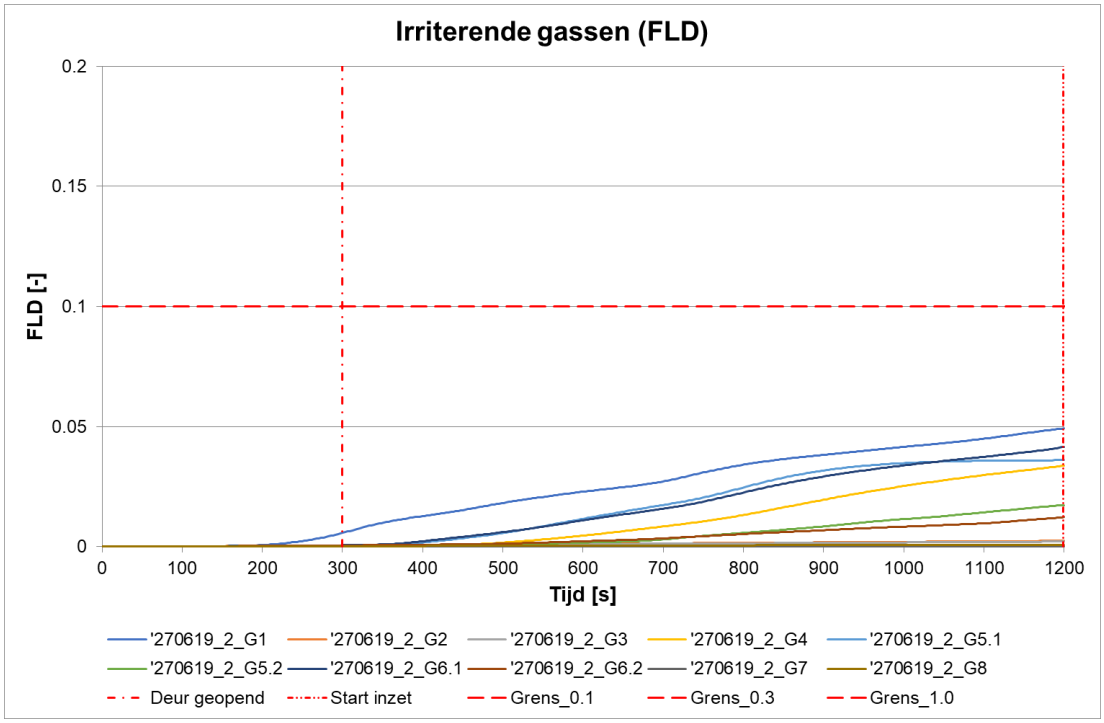
		Irritant gases (FIC)			
	Group	Threshold [-]	Safe [min.]	Impaired [min.]	Life-threatening [min.]
Fire room 1.19 G1	Highly vulnerable	0.1/0.5	2.9	4.5	> 4.5
	Vulnerable	0.3/1.5	3.9	> 55.0	-
	General	1.0/5.0	> 55.0	-	-
Residence 1.20 G2	Highly vulnerable	0.1/0.5	26.8	> 55.0	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Residence 1.24 G3	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-

Residence 1.25 G4	Highly vulnerable	0.1/0.5	7.6	21.5	> 21.5
	Vulnerable	0.3/1.5	12.5	> 55.0	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.5	6.0	22.0	> 22.0
	Vulnerable	0.3/1.5	8.1	> 55.0	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.5	11.2	> 55.0	-
	Vulnerable	0.3/1.5	20.9	> 55.0	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.5	6.0	20.6	> 20.6
	Vulnerable	0.3/1.5	6.6	> 55.0	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.5	11.4	> 55.0	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-


Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G5.1)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.1)
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Start inzet

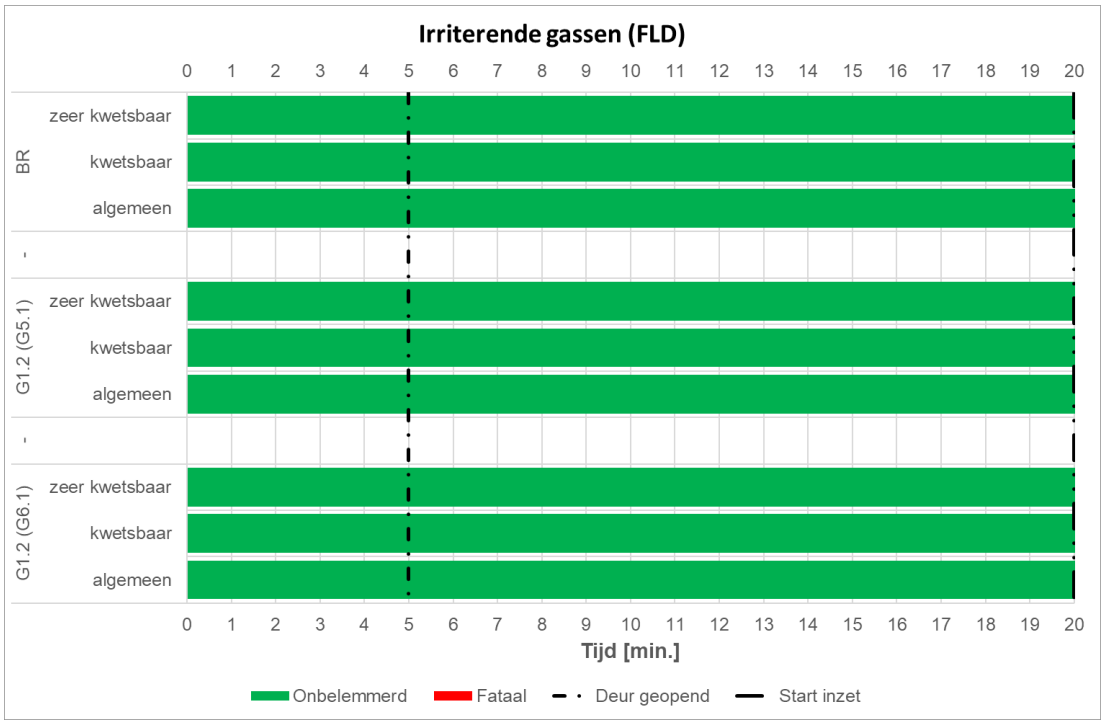

Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Start inzet


Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Start inzet

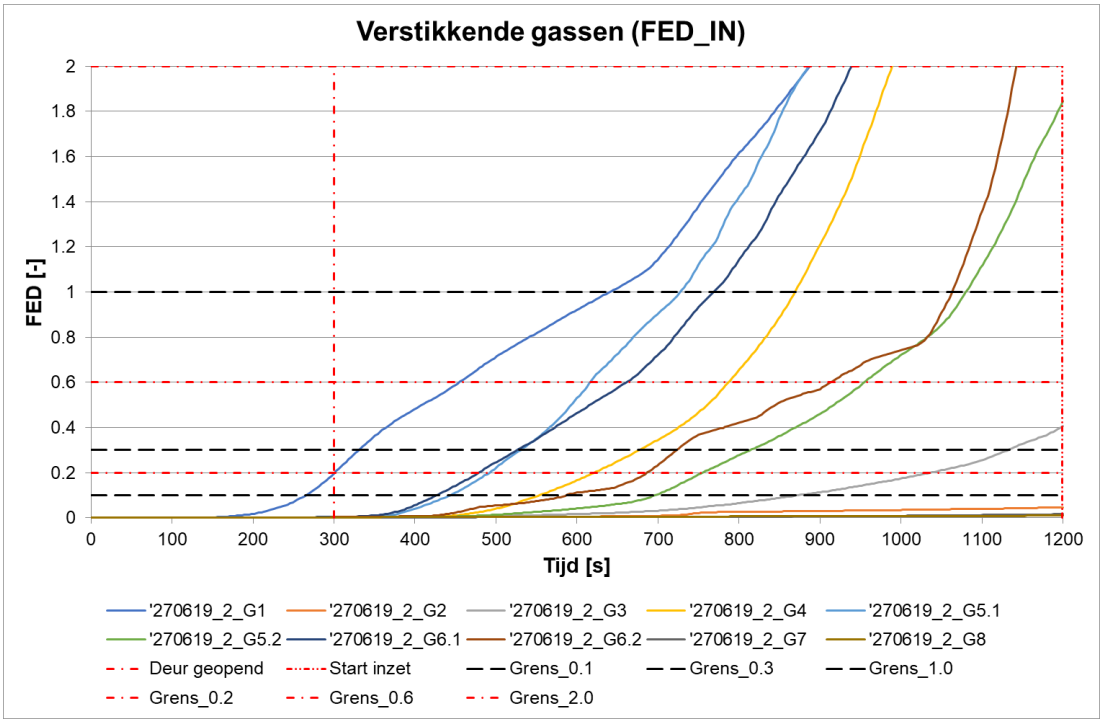

Irriterende gassen (FLD)
0.2
0.15
0.1
0.05
0
FLD [-]
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
Tijd [s]
'270619_2_G1
'270619_2_G2
'270619_2_G3
'270619_2_G4
'270619_2_G5.1
'270619_2_G5.2
'270619_2_G6.1
'270619_2_G6.2
'270619_2_G7
'270619_2_G8
Deur geopend
Start inzet
Grens_0.1
Grens_0.3
Grens_1.0

	Irritant gases (FLD)			
	Group	Threshold [-]	Safe [min.]	Impaired [min.]
Fire room 1.19 G1	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.20 G2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.24 G3	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.25 G4	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G5.1	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G5.2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G6.1	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G6.2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-

	General	1.0	> 55.0	-
Corridor 1.1 G7	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.3 G8	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-

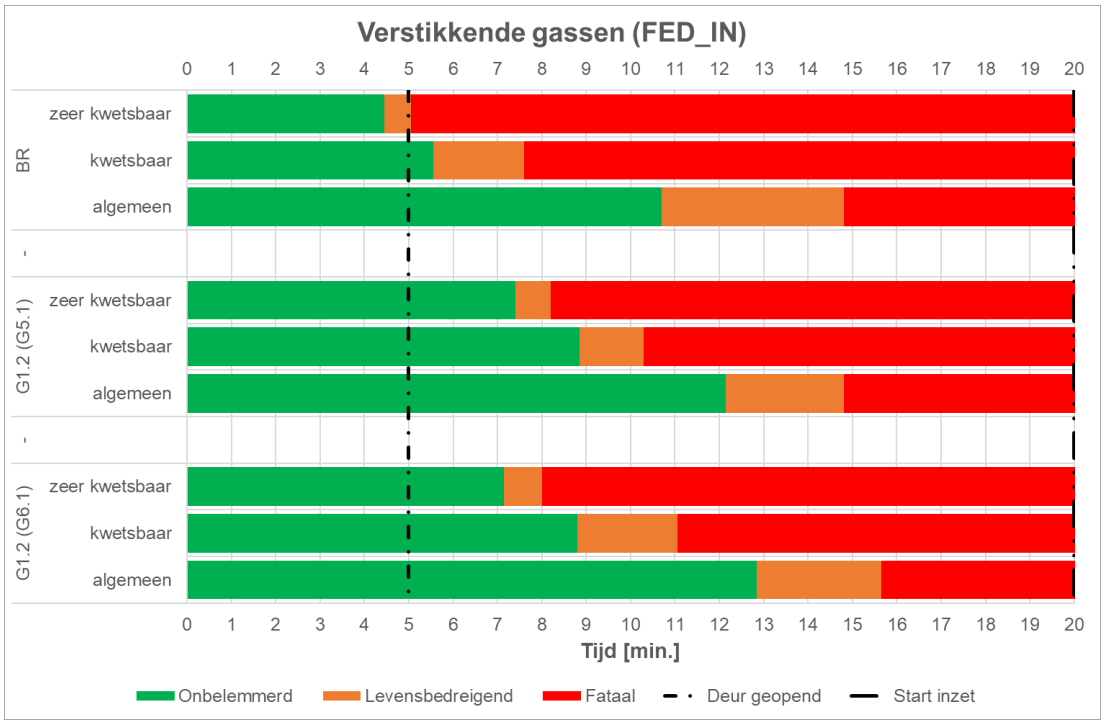


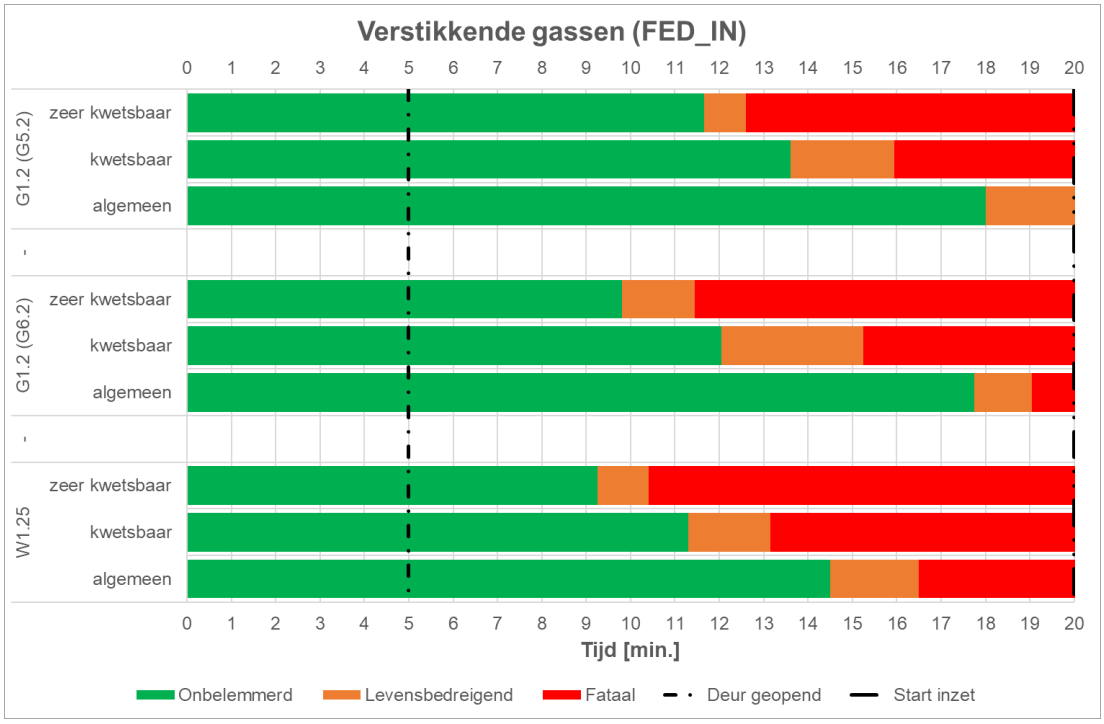
Asphyxiant gases

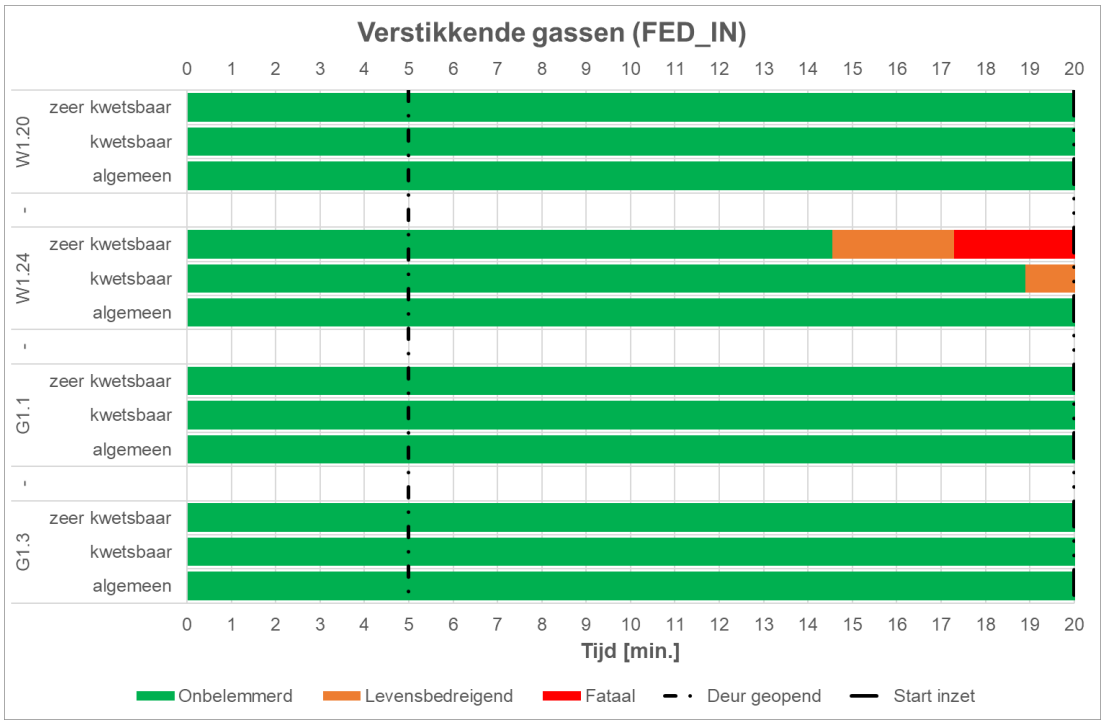


		Asphyxiant gases (FED_IN)			
	Group	Threshold [-]	Safe [min.]	Life-threatening [min.]	Fatal [min.]
Fire room 1.19 G1	Highly vulnerable	0.1/0.2	4.5	5.1	> 5.1
	Vulnerable	0.3/0.6	5.6	7.6	> 7.6
	General	1.0/2.0	10.7	14.8	> 14.8
Residence 1.20 G2	Highly vulnerable	0.1/0.2	23.9	26.3	> 26.3
	Vulnerable	0.3/0.6	27.7	31.1	> 31.1
	General	1.0/2.0	34.9	41.5	> 41.5
Residence 1.24 G3	Highly vulnerable	0.1/0.2	14.6	17.3	> 17.3
	Vulnerable	0.3/0.6	18.9	21.4	> 21.4
	General	1.0/2.0	23.5	27.7	> 27.7
Residence 1.25	Highly vulnerable	0.1/0.2	9.3	10.4	> 10.4

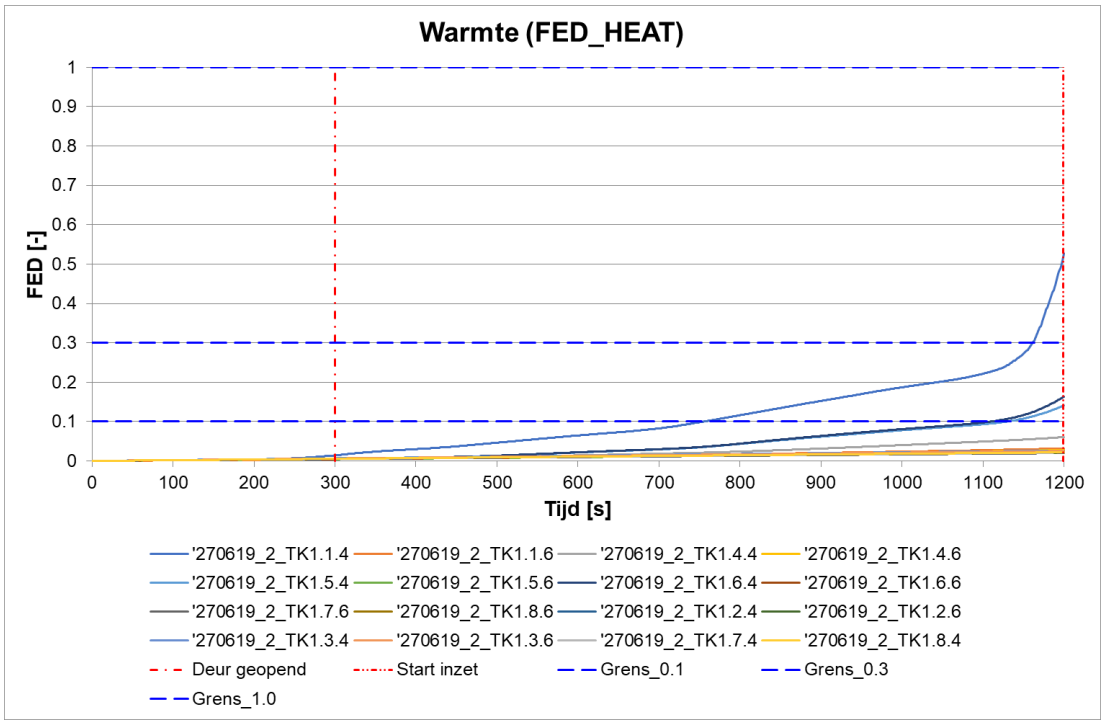
G4	Vulnerable	0.3/0.6	11.3	13.2	> 13.2
	General	1.0/2.0	14.5	16.5	> 16.5
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.2	7.4	8.2	> 8.2
	Vulnerable	0.3/0.6	8.9	10.3	> 10.3
	General	1.0/2.0	12.2	14.8	> 14.8
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.2	11.7	12.6	> 12.6
	Vulnerable	0.3/0.6	13.6	16.0	> 16.0
	General	1.0/2.0	18.0	20.3	> 20.3
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.2	7.2	8.0	> 8.0
	Vulnerable	0.3/0.6	8.8	11.1	> 11.1
	General	1.0/2.0	12.9	15.7	> 15.7
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.2	9.8	11.5	> 11.5
	Vulnerable	0.3/0.6	12.1	15.3	> 15.3
	General	1.0/2.0	17.8	19.1	> 19.1
Corridor 1.1 G7	Highly vulnerable	0.1/0.2	26.4	31.6	> 31.6
	Vulnerable	0.3/0.6	36.6	45.7	> 45.7
	General	1.0/2.0	50.8	> 55.0	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.2	26.9	32.3	> 32.3
	Vulnerable	0.3/0.6	38.6	47.3	> 47.3
	General	1.0/2.0	> 55.0	-	-


Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G5.1)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.1)
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet


Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet

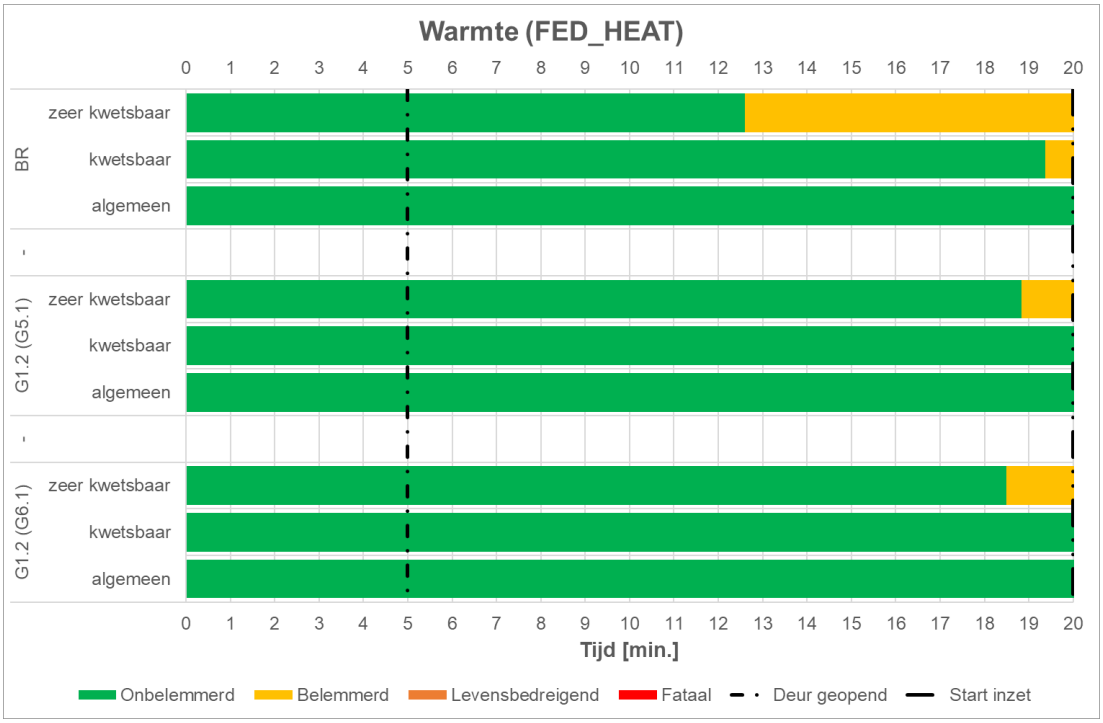

Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet

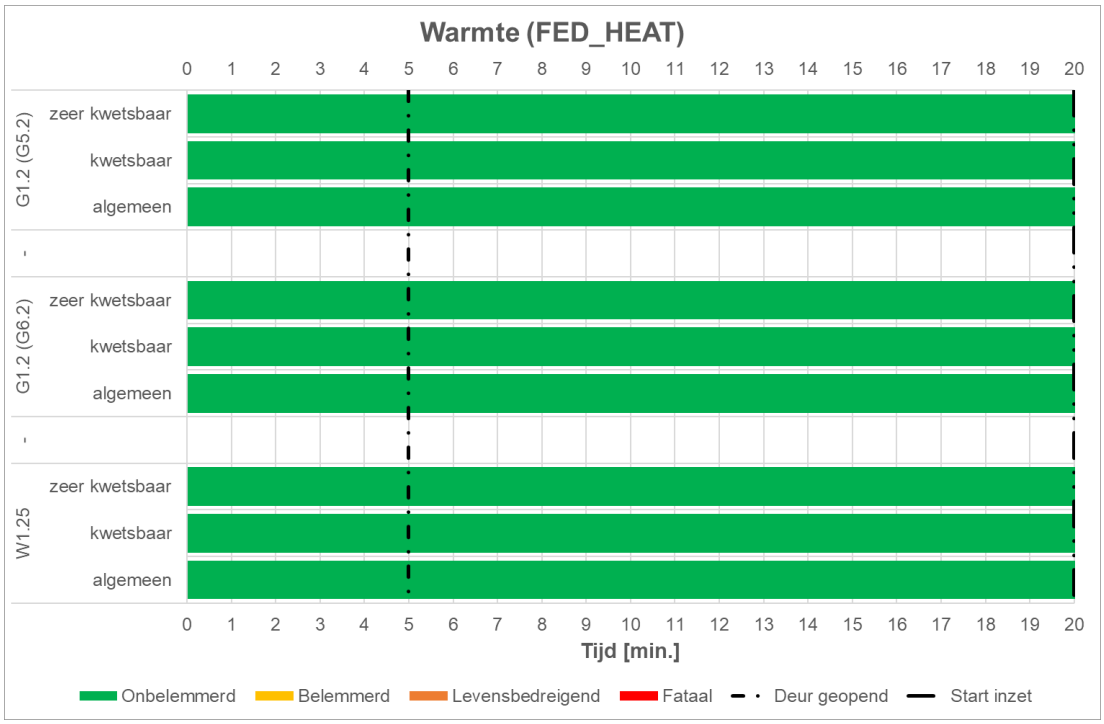
Heat

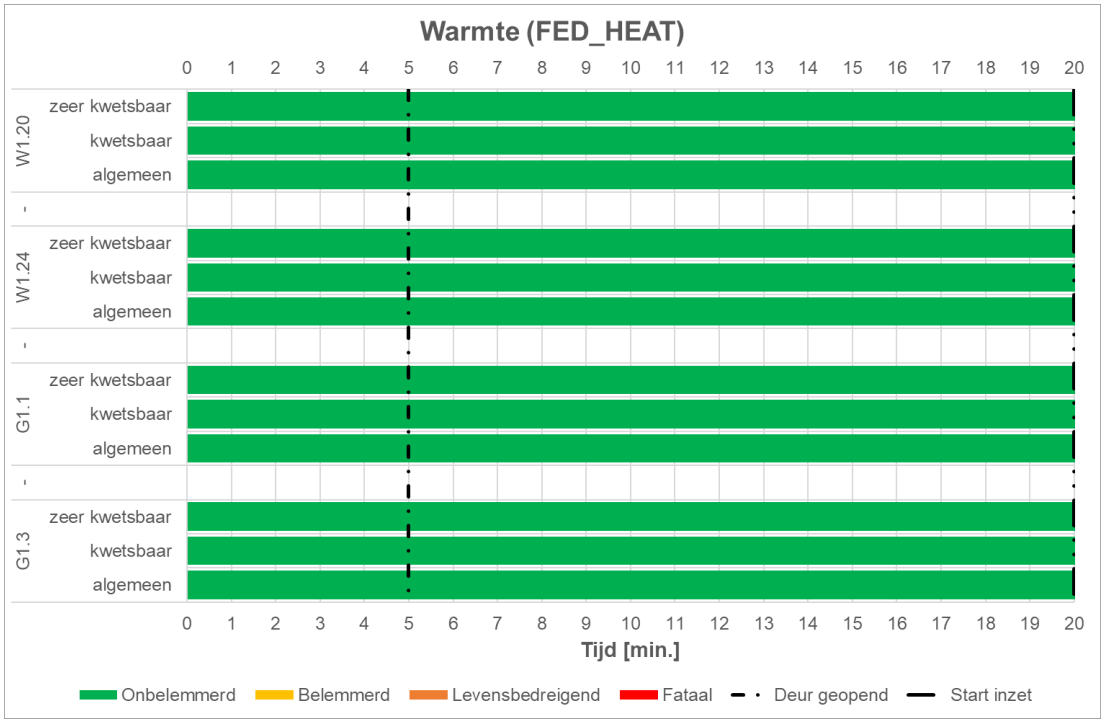

Warmte (FED_HEAT)
FED [-]
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
Tijd [s]
'270619_2_TK1.1.4
'270619_2_TK1.1.6
'270619_2_TK1.4.4
'270619_2_TK1.4.6
'270619_2_TK1.5.4
'270619_2_TK1.5.6
'270619_2_TK1.6.4
'270619_2_TK1.6.6
'270619_2_TK1.7.6
'270619_2_TK1.8.6
'270619_2_TK1.2.4
'270619_2_TK1.2.6
'270619_2_TK1.3.4
'270619_2_TK1.3.6
'270619_2_TK1.7.4
'270619_2_TK1.8.4
Deur geopend
Start inzet
Grens_0.1
Grens_0.3
Grens_1.0

Heat (FED_HEAT)						
	Group	Threshold [-]	Safe [min.]	Impaired [min.]	Life-threatening [min.]	Fatal [min.]
Fire room 1.19 G1	Highly vulnerable	0.1/0.8/1.2	12.6	20.5	20.9	> 20.9
	Vulnerable	0.3/2.4/12.0	19.4	22.0	23.4	> 23.4
	General	1.0/8.0/12.0	20.7	> 55.0	-	-
Residence 1.20 G2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Residence 1.24 G3	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Residence 1.25 G4	Highly vulnerable	0.1/0.8/1.2	22.2	> 55.0	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.8/1.2	18.8	> 55.0	-	-
	Vulnerable	0.3/2.4/12.0	21.9	> 55.0	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2	Highly vulnerable	0.1/0.8/1.2	18.5	> 55.0	-	-

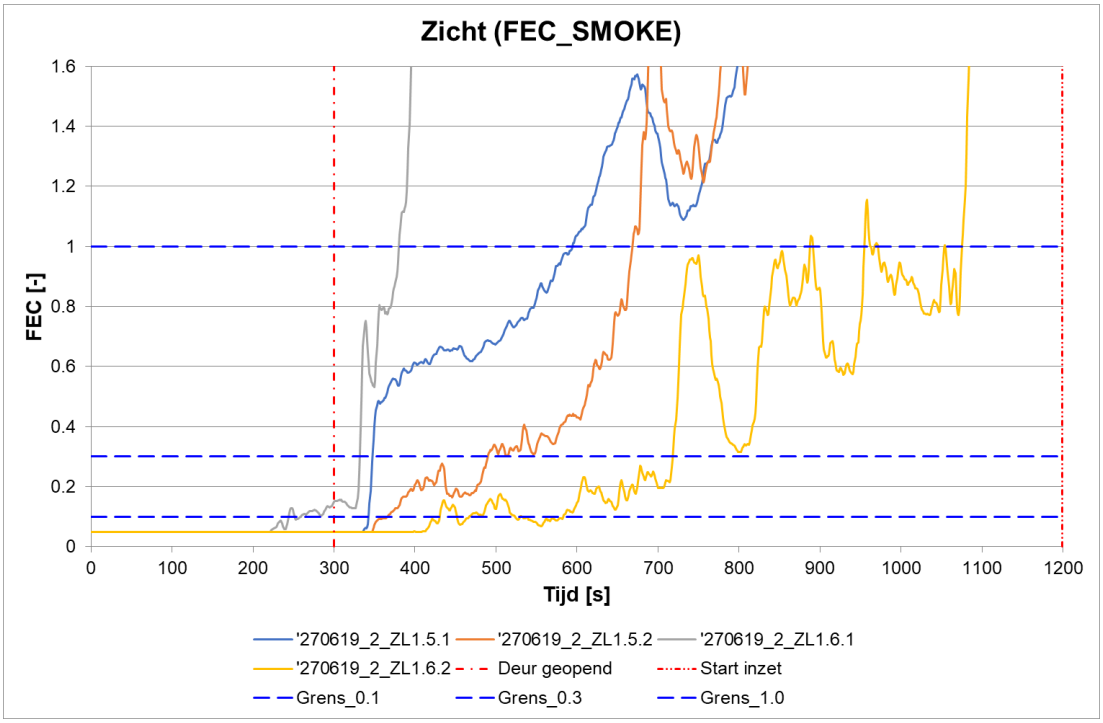
G6.1	Vulnerable	0.3/2.4/12.0	21.4	> 55.0	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-




Warmte (FED_HEAT)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet

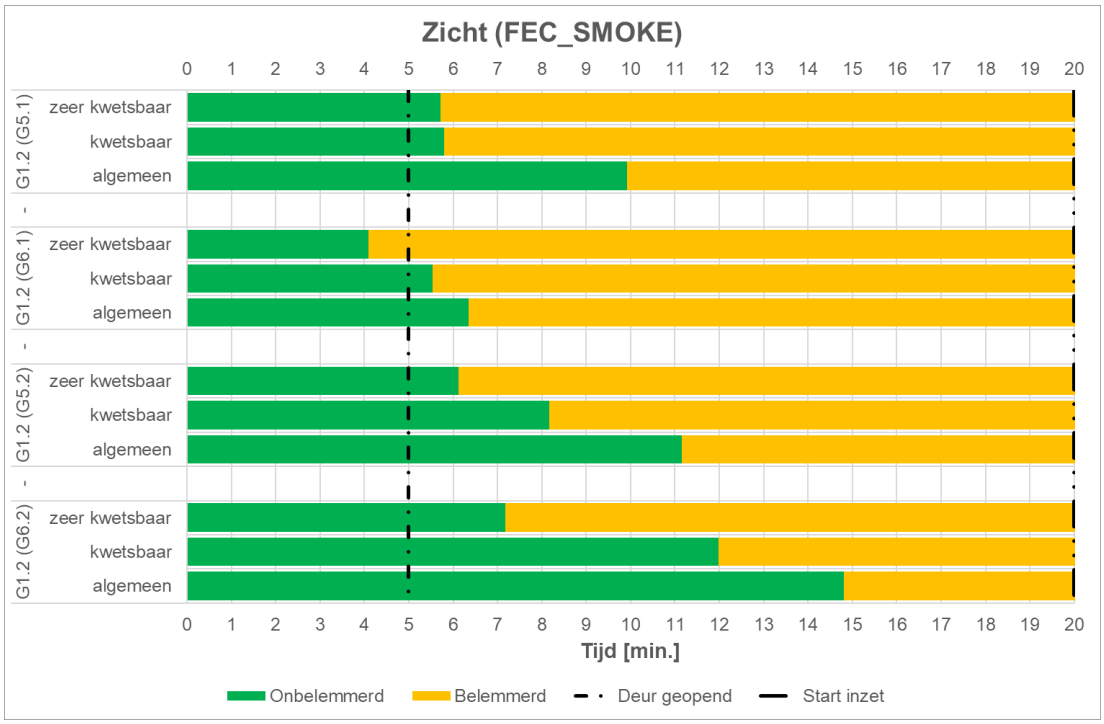

Warmte (FED_HEAT)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet

Visibility

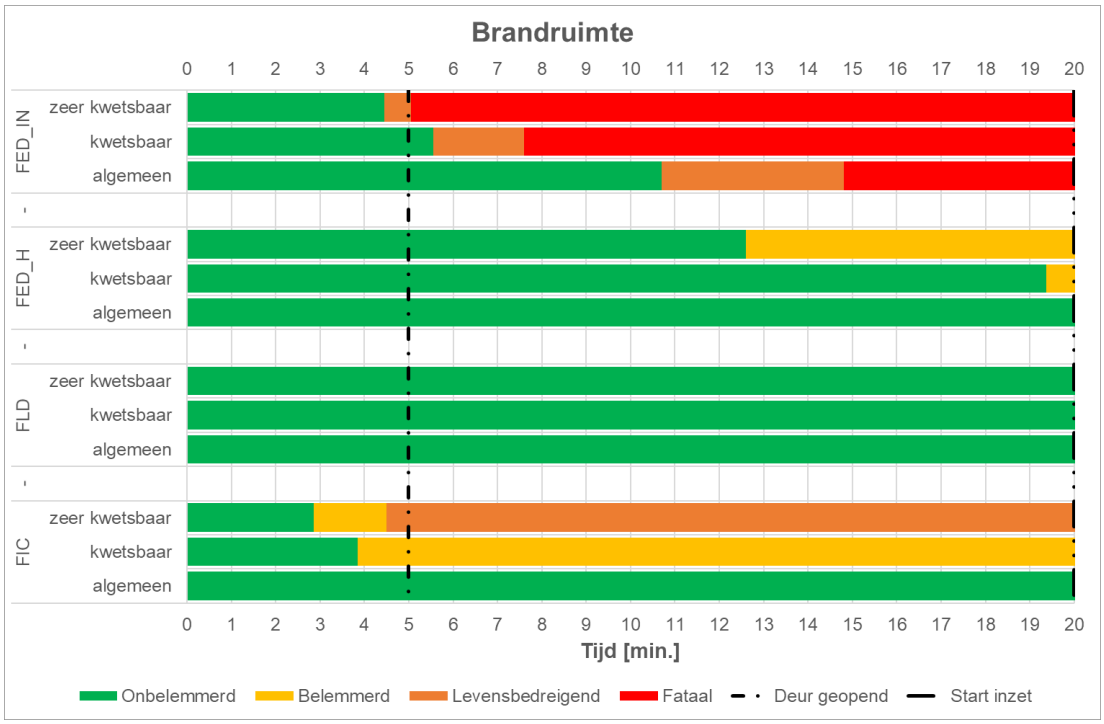


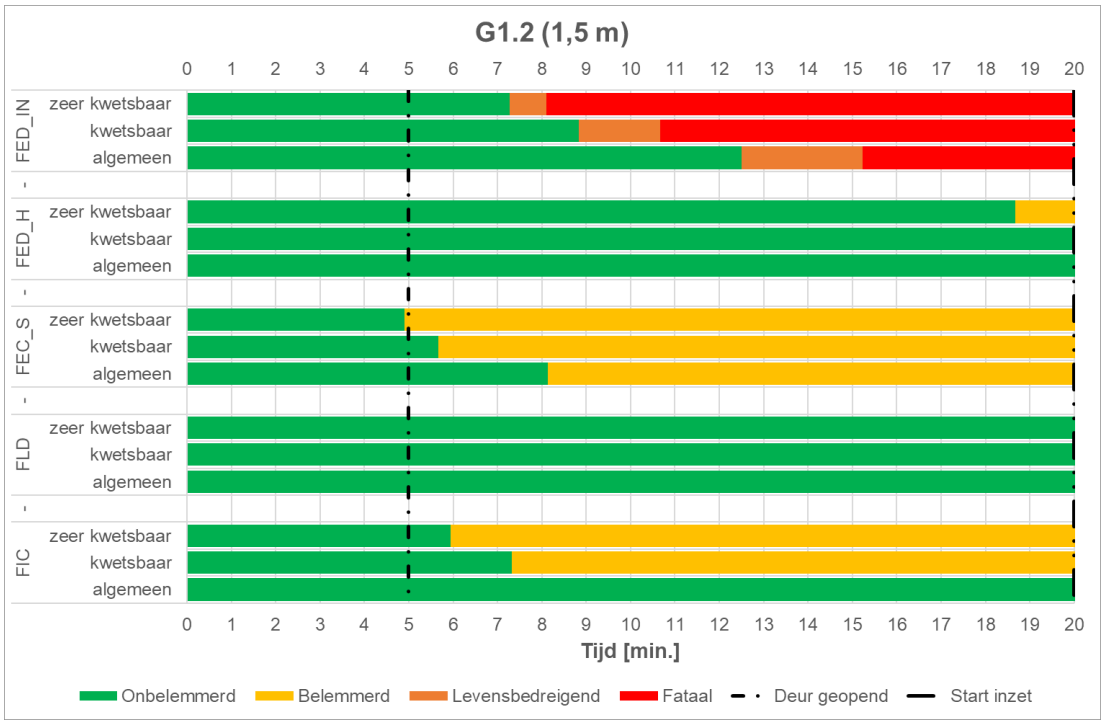
	Visibility (FEC_SMOKE)			
	Group	Threshold [-]	Safe [min.]	Impaired [min.]
Corridor 1.2 G5.1	Highly vulnerable	0.1	5.7	> 5.7
	Vulnerable	0.3	5.8	> 5.8
	General	1.0	9.9	> 9.9
Corridor 1.2 G5.2	Highly vulnerable	0.1	6.1	> 6.1
	Vulnerable	0.3	8.2	> 8.2
	General	1.0	11.2	> 11.2
Corridor 1.2 G6.1	Highly vulnerable	0.1	4.1	> 4.1
	Vulnerable	0.3	5.5	> 5.5
	General	1.0	6.4	> 6.4
Corridor 1.2	Highly vulnerable	0.1	7.2	> 7.2

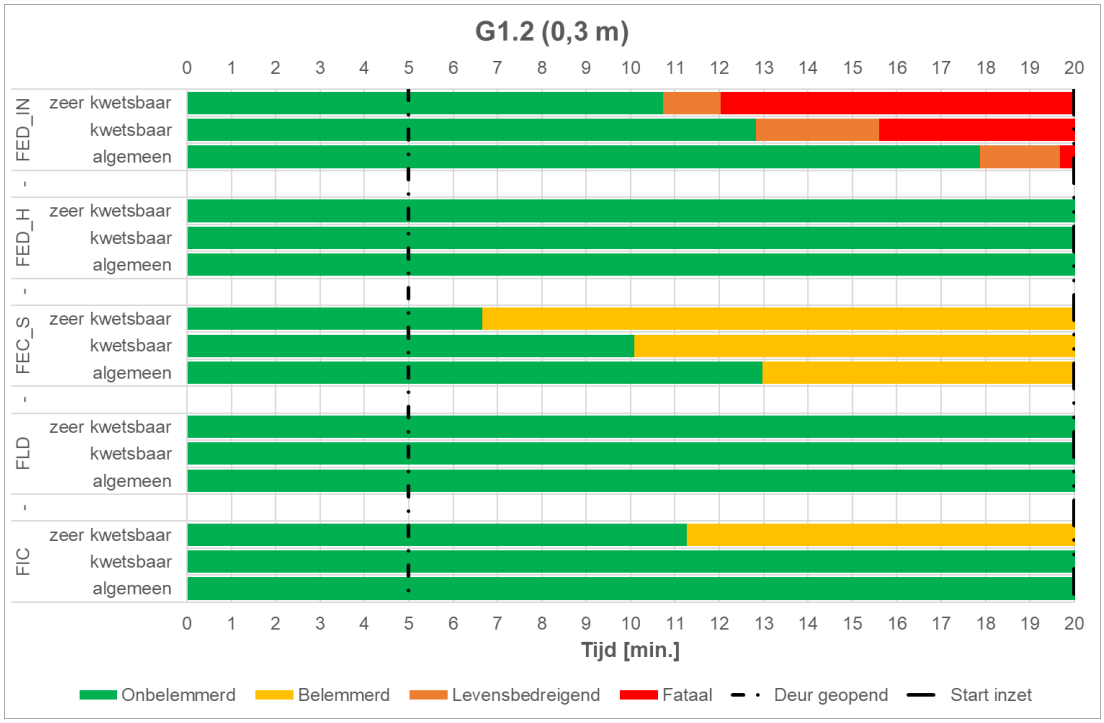
G6.2	Vulnerable	0.3	12.0	> 12.0
	General	1.0	14.8	> 14.8



Overview

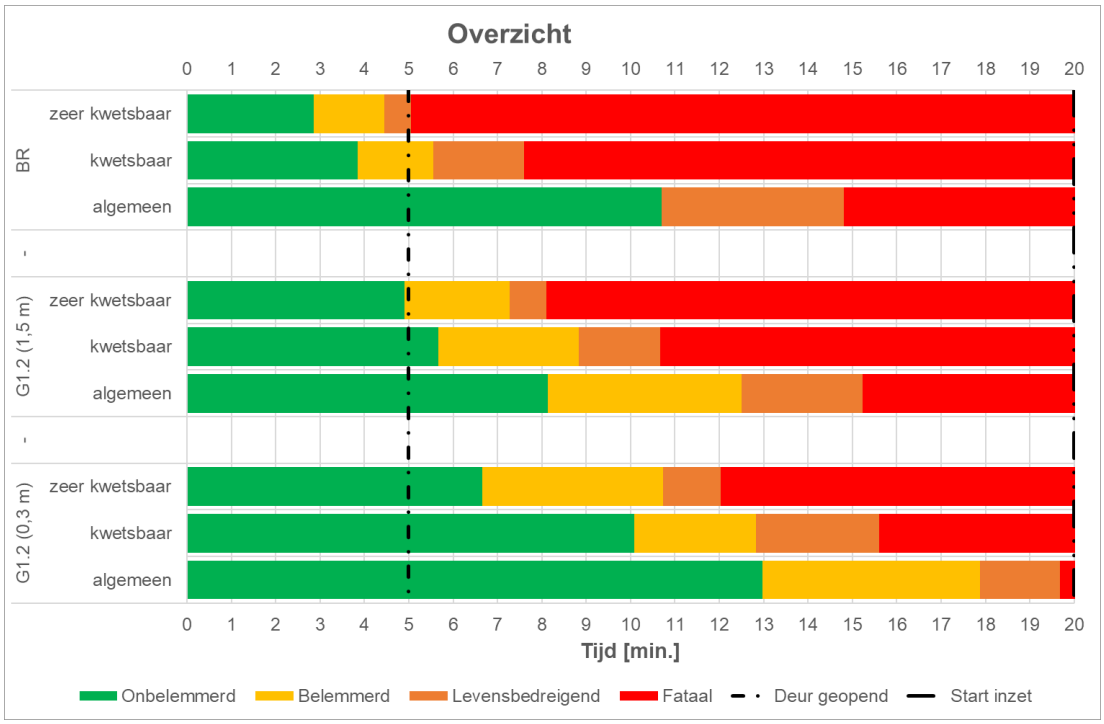


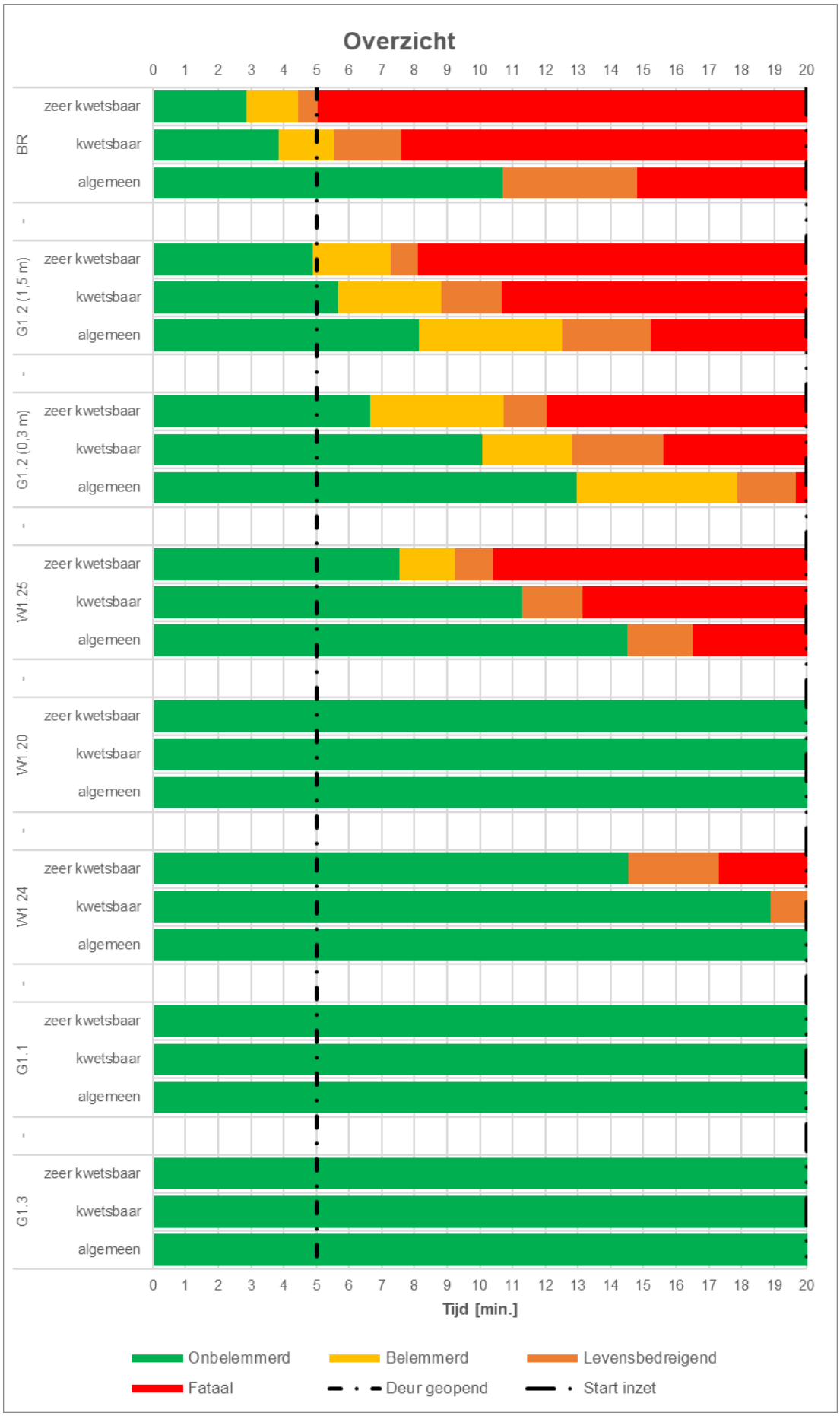

G1.2 (1,5 m)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
FED_IN
FED_H
FEC_S
FLD
FIC
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet


G1.2 (0,3 m)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
FED_IN
FED_H
FEC_S
FLD
FIC
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet

	Overview	Escape		Survivability	
	Group	Safe [min.]	Impaired [min.]	Life-threatening [min.]	Fatal [min.]
Fire room 1.19 G1	Highly vulnerable	2.9	4.5	5.1	> 5.1
	Vulnerable	3.9	5.6	7.6	> 7.6
	General	10.7	10.7	14.8	> 14.8
Residence 1.20 G2	Highly vulnerable	23.9	23.9	26.3	> 26.3
	Vulnerable	27.7	27.7	31.1	> 31.1
	General	34.9	34.9	41.5	> 41.5
Residence 1.24 G3	Highly vulnerable	14.6	14.6	17.3	> 17.3
	Vulnerable	18.9	18.9	21.4	> 21.4
	General	23.5	23.5	27.7	> 27.7
Residence 1.25 G4	Highly vulnerable	7.6	9.3	10.4	> 10.4
	Vulnerable	11.3	11.3	13.2	> 13.2
	General	14.5	14.5	16.5	> 16.5
Corridor 1.2 G5.1	Highly vulnerable	5.7	7.4	8.2	> 8.2
	Vulnerable	5.8	8.9	10.3	> 10.3
	General	9.9	12.2	14.8	> 14.8
Corridor 1.2 G5.2	Highly vulnerable	6.1	11.7	12.6	> 12.6
	Vulnerable	8.2	13.6	16.0	> 16.0
	General	11.2	18.0	20.3	> 20.3
Corridor 1.2	Highly vulnerable	4.1	7.2	8.0	> 8.0

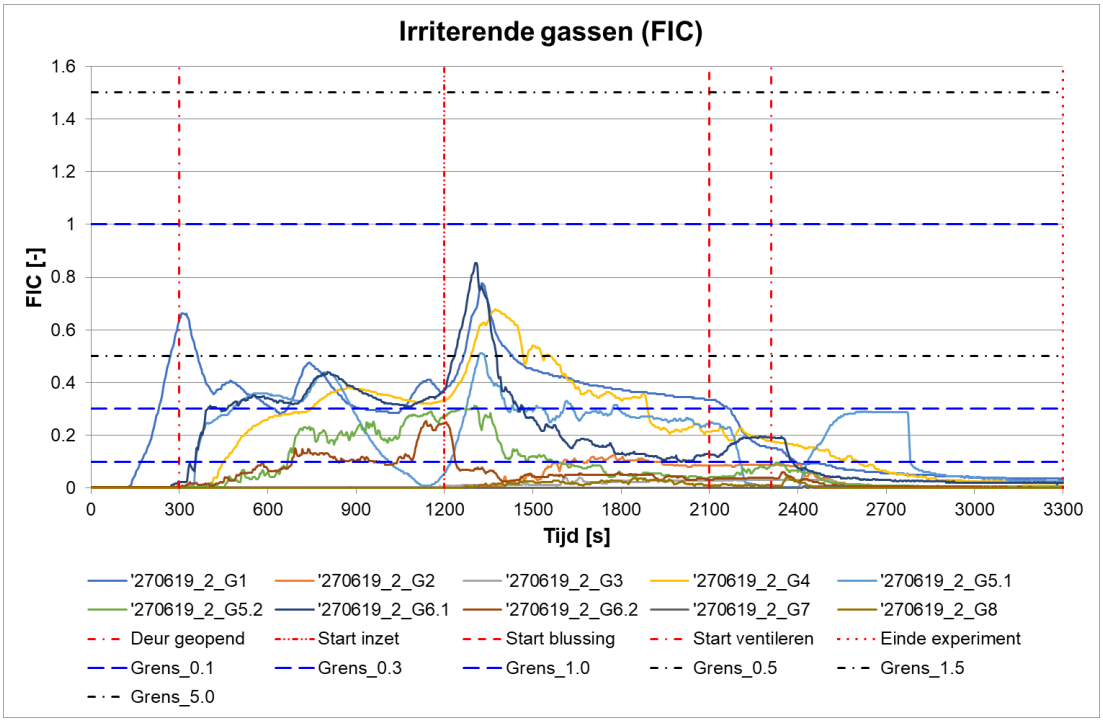
G6.1	Vulnerable	5.5	8.8	11.1	> 11.1
	General	6.4	12.9	15.7	> 15.7
Corridor 1.2 G6.2	Highly vulnerable	7.2	9.8	11.5	> 11.5
	Vulnerable	12.0	12.1	15.3	> 15.3
	General	14.8	17.8	19.1	> 19.1
Corridor 1.1 G7	Highly vulnerable	26.4	26.4	31.6	> 31.6
	Vulnerable	36.6	36.6	45.7	> 45.7
	General	50.8	50.8	> 55.0	-
Corridor 1.3 G8	Highly vulnerable	26.9	26.9	32.3	> 32.3
	Vulnerable	38.6	38.6	47.3	> 47.3
	General	> 55.0	-	-	-

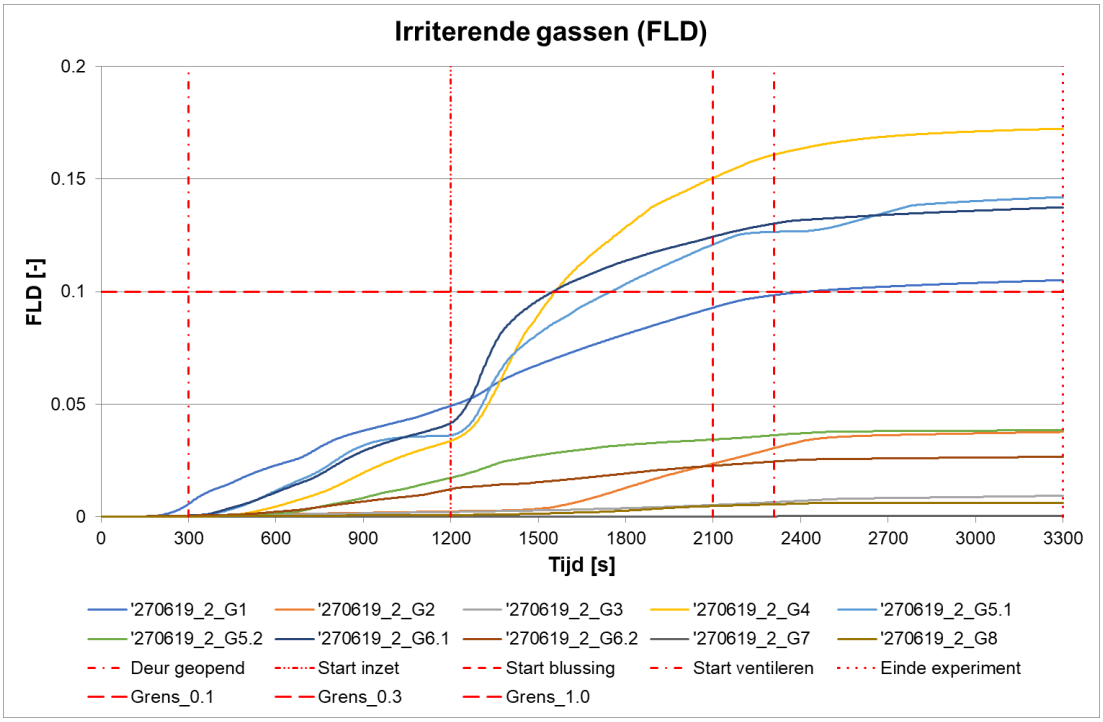



Overzicht
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (1,5 m)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (0,3 m)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet

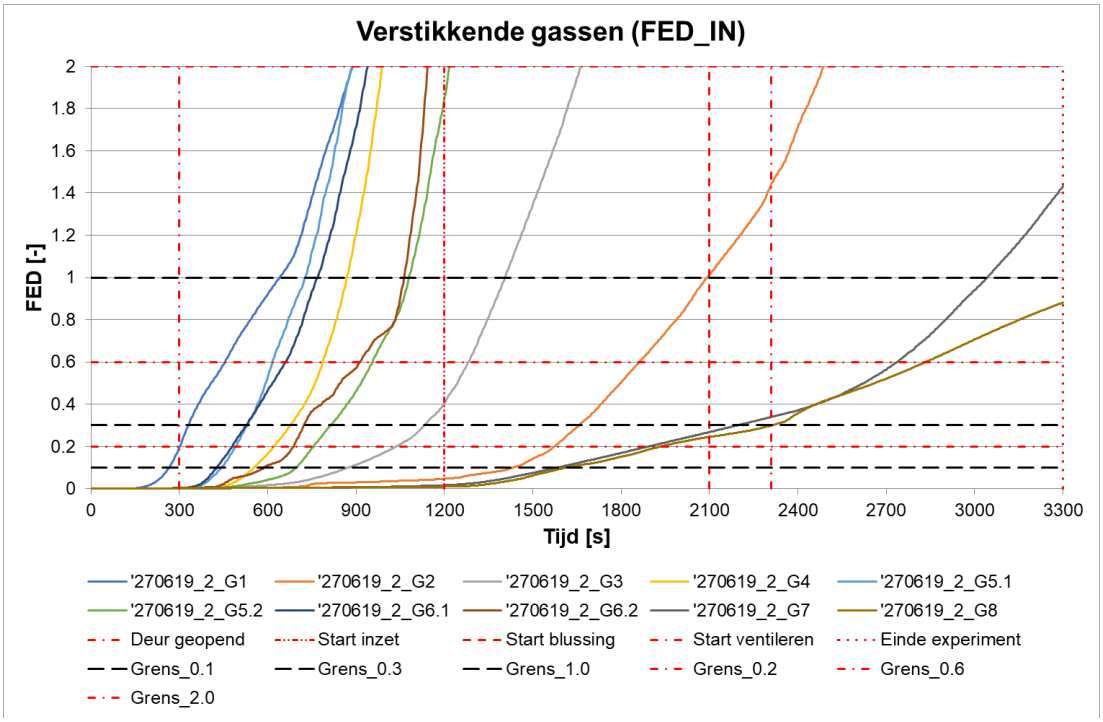
C. Deployment phase (20 - 55 minutes)

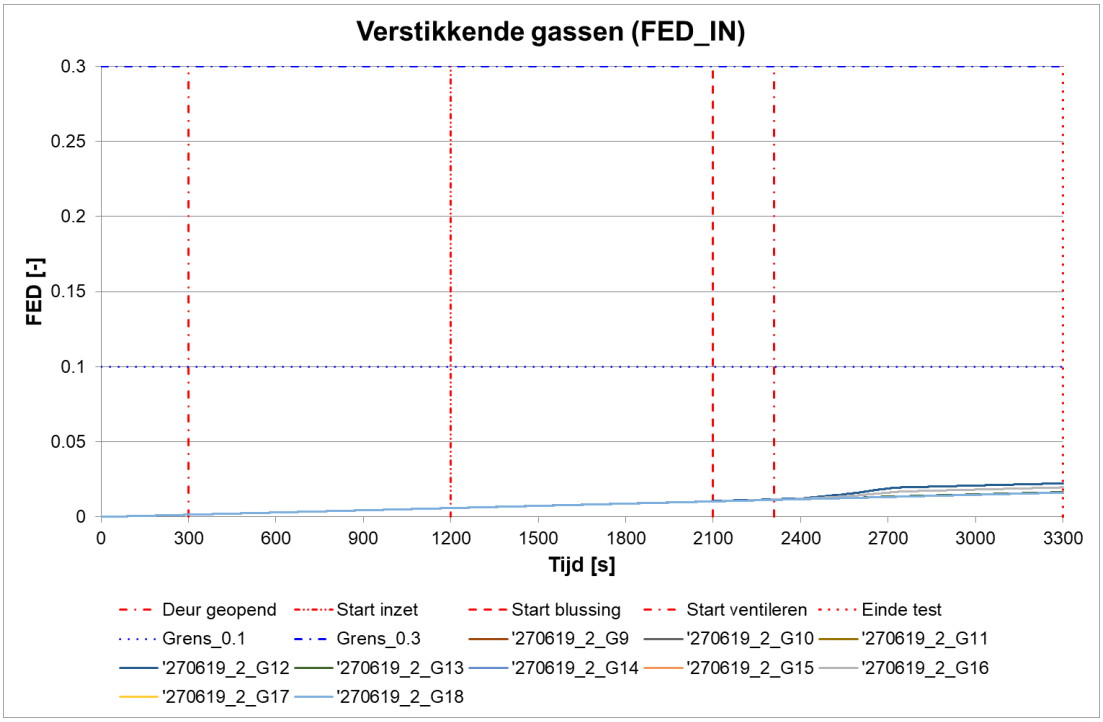
Irritant gases



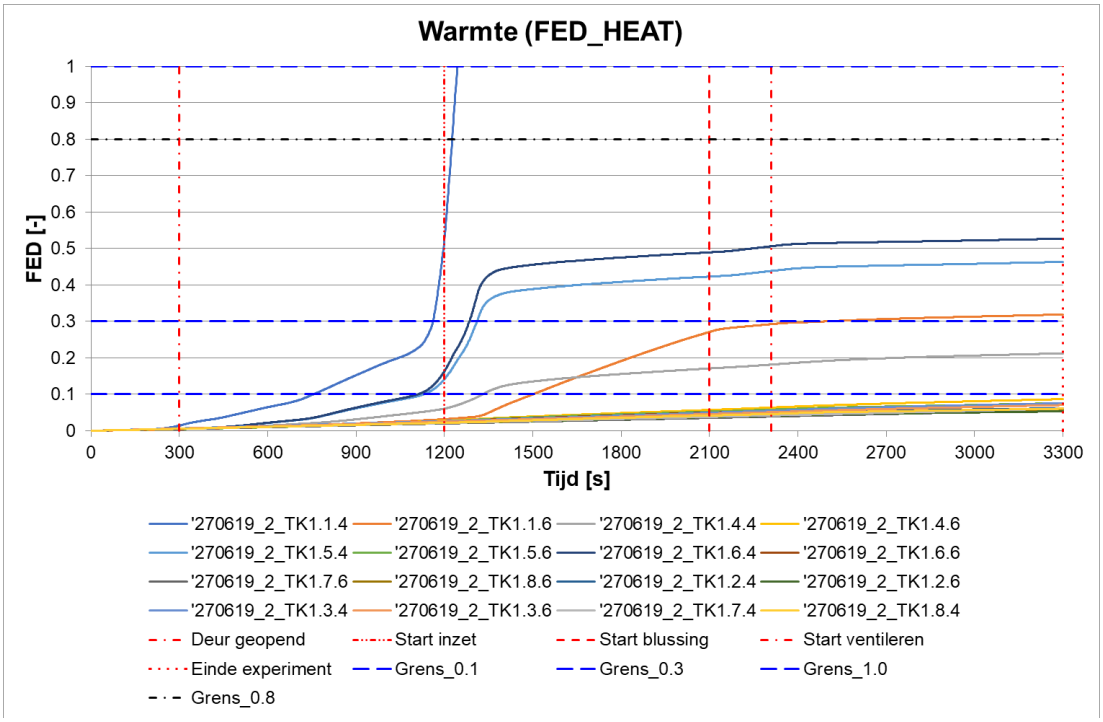


Asphyxiant gases

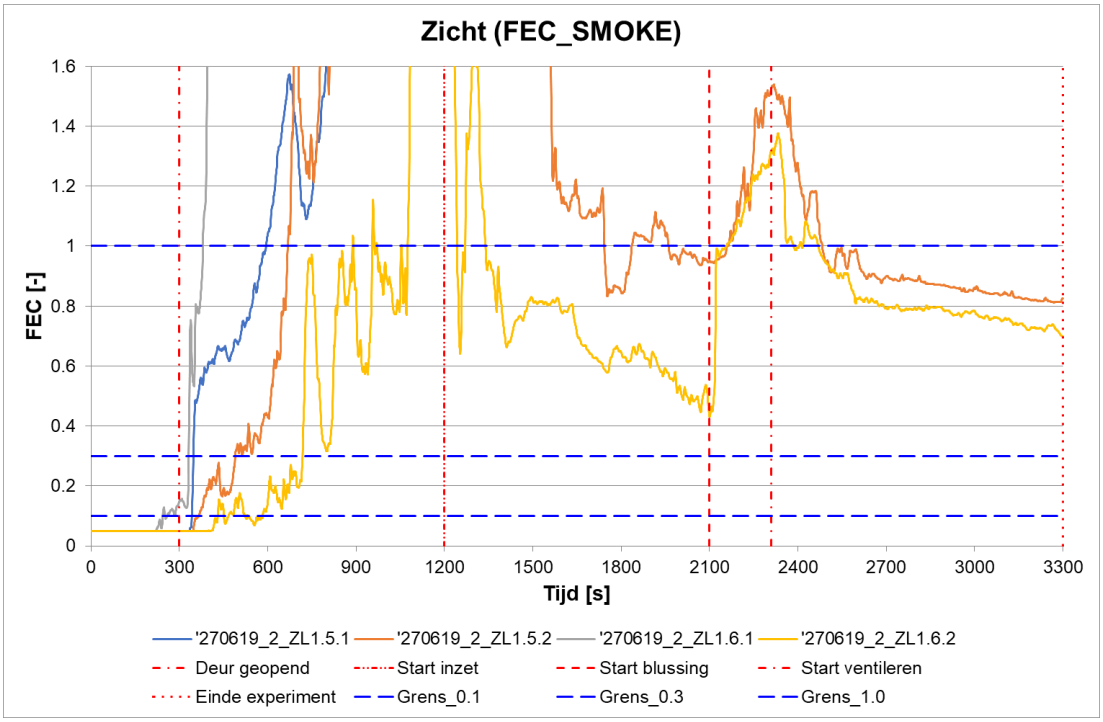




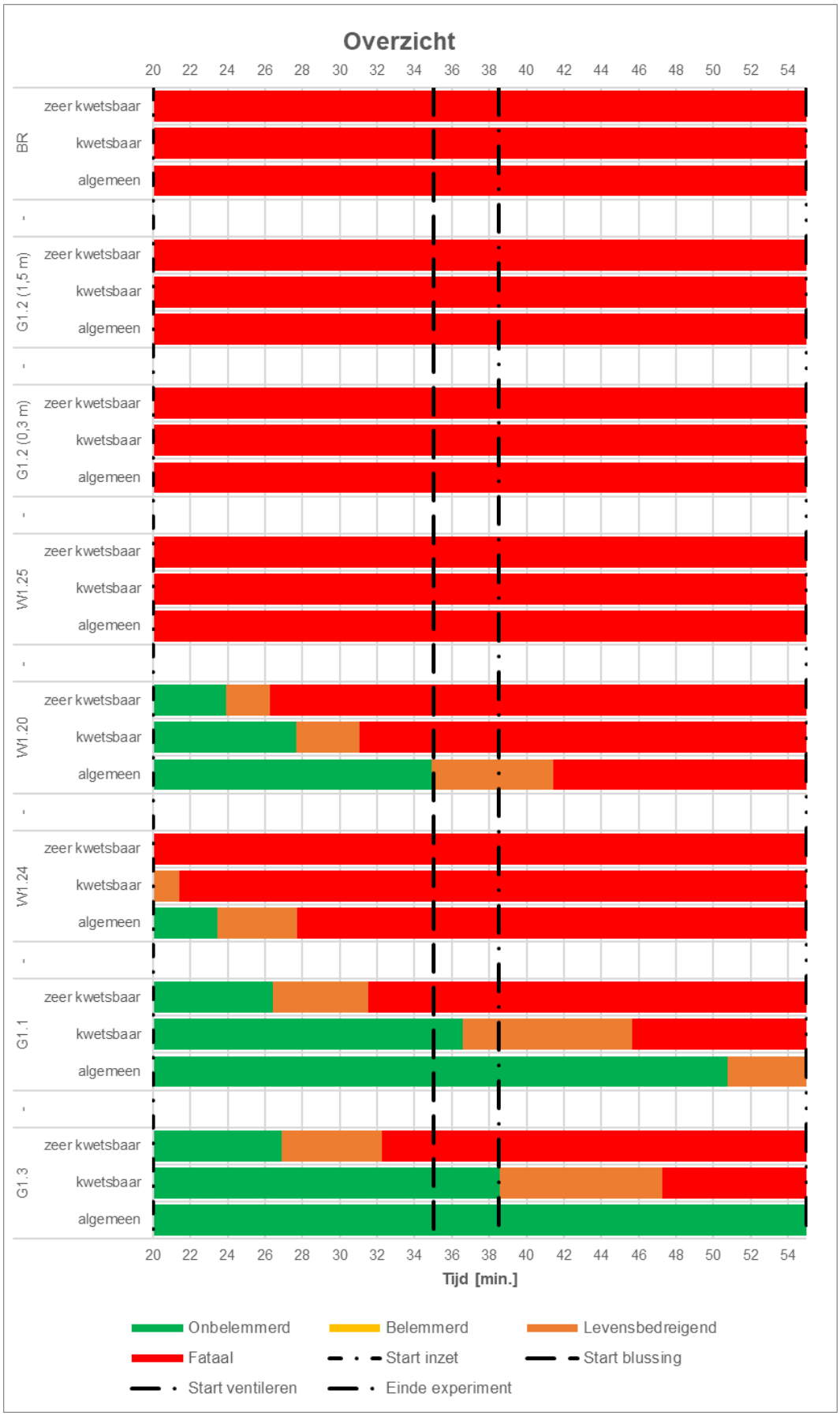
Heat



Visibility



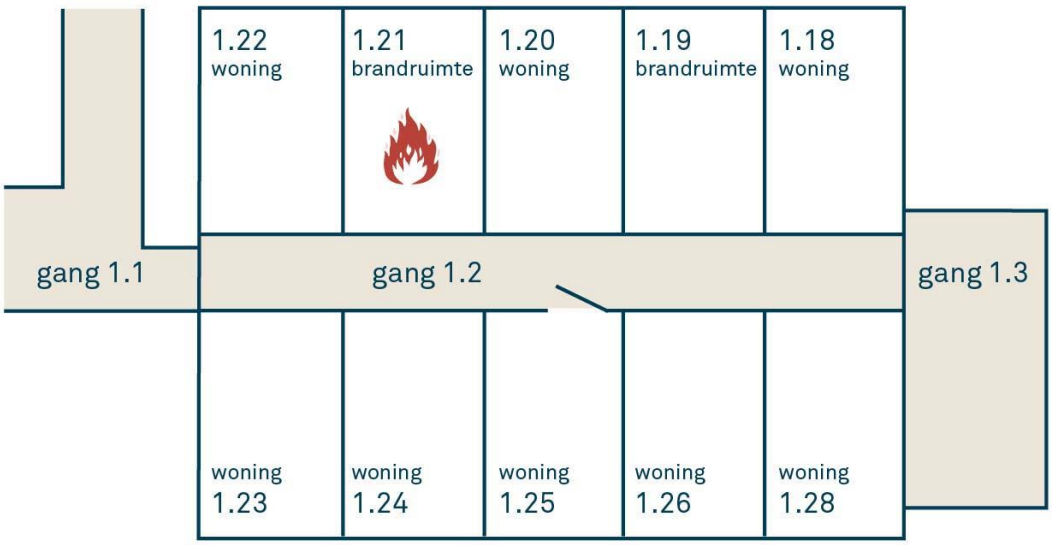
Overview


Overzicht
20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54
BR
G1.2 (1,5 m)
G1.2 (0,3 m)
W1.25
W1.20
W1.24
G1.1
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
-
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Start inzet
Start blussing
Start ventileren
Einde experiment

Test 8 (variant 3: mobile water mist and door closed) 28/06/2019

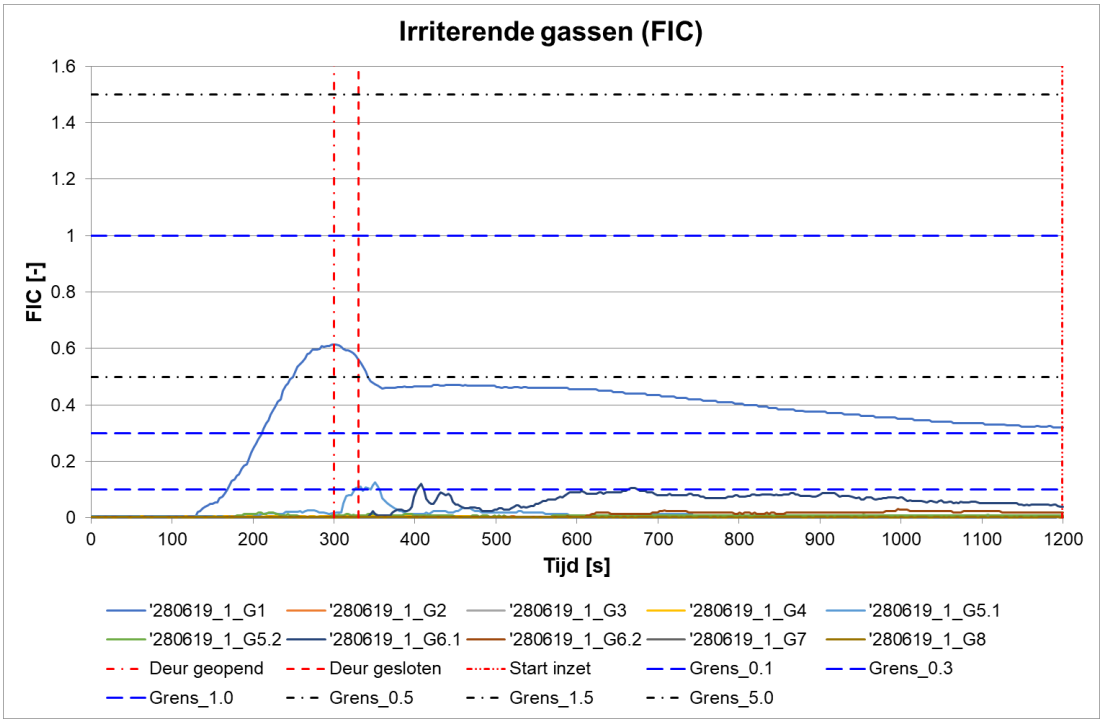
A. Description of the test

Test number	8
Date	28/06/2019
Morning / afternoon	Morning
Fire room	1.21
Door to the fire room open / closed	Closed
Fire service deployment	Defensive interior attack
Extra measures	Mobile water mist
Specific aspects	Mobile water mist was activated 1 minute and 57 seconds after the start of the test.



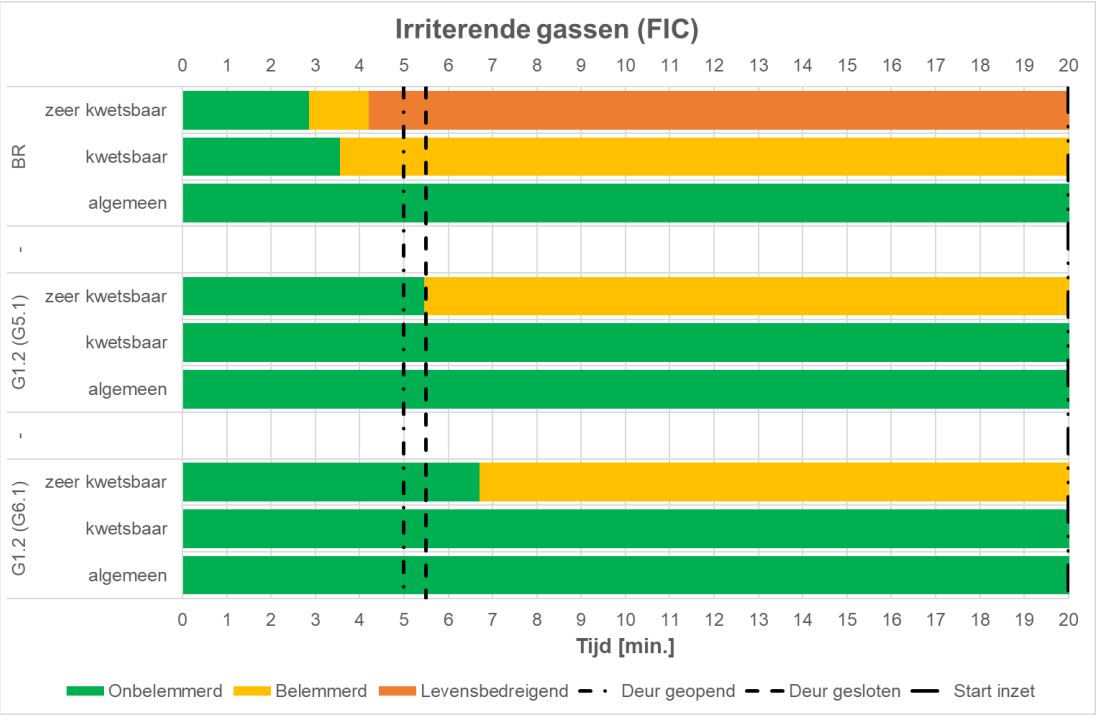
B. Escape phase (0 - 20 minutes)

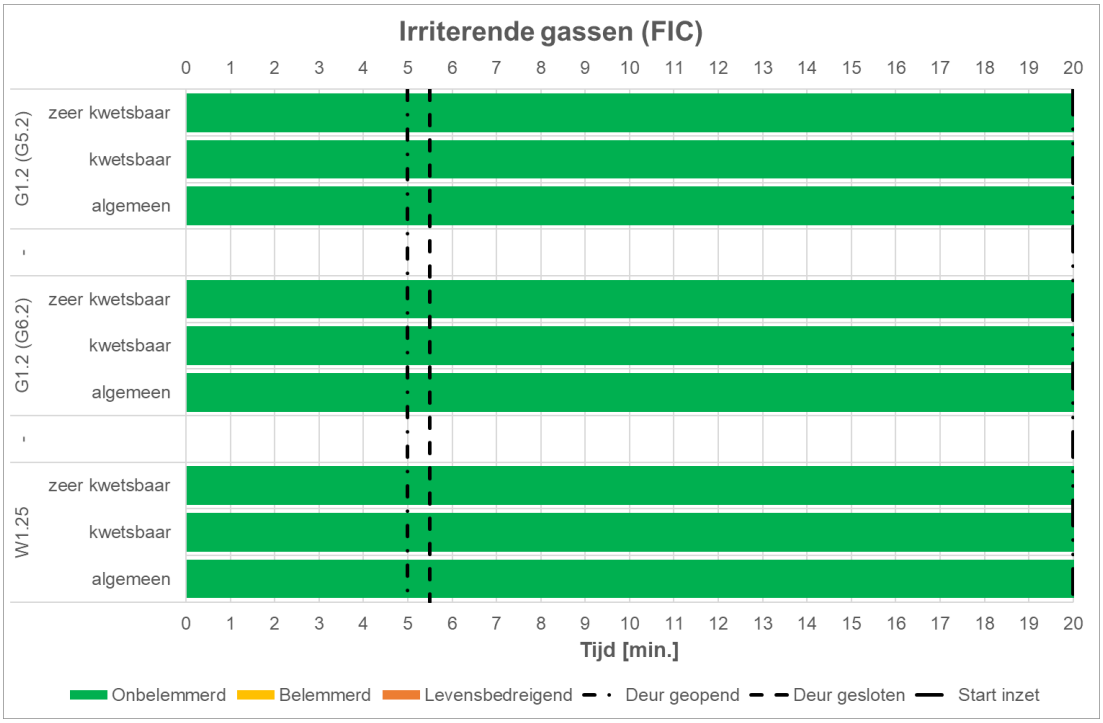
Irritant gases

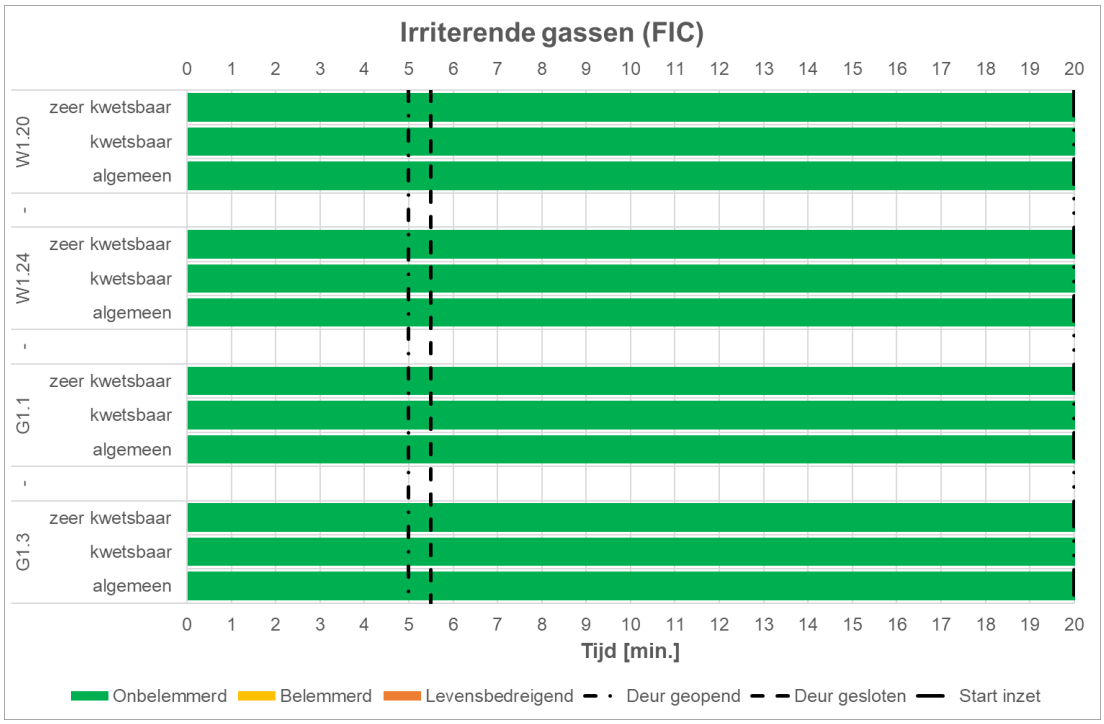


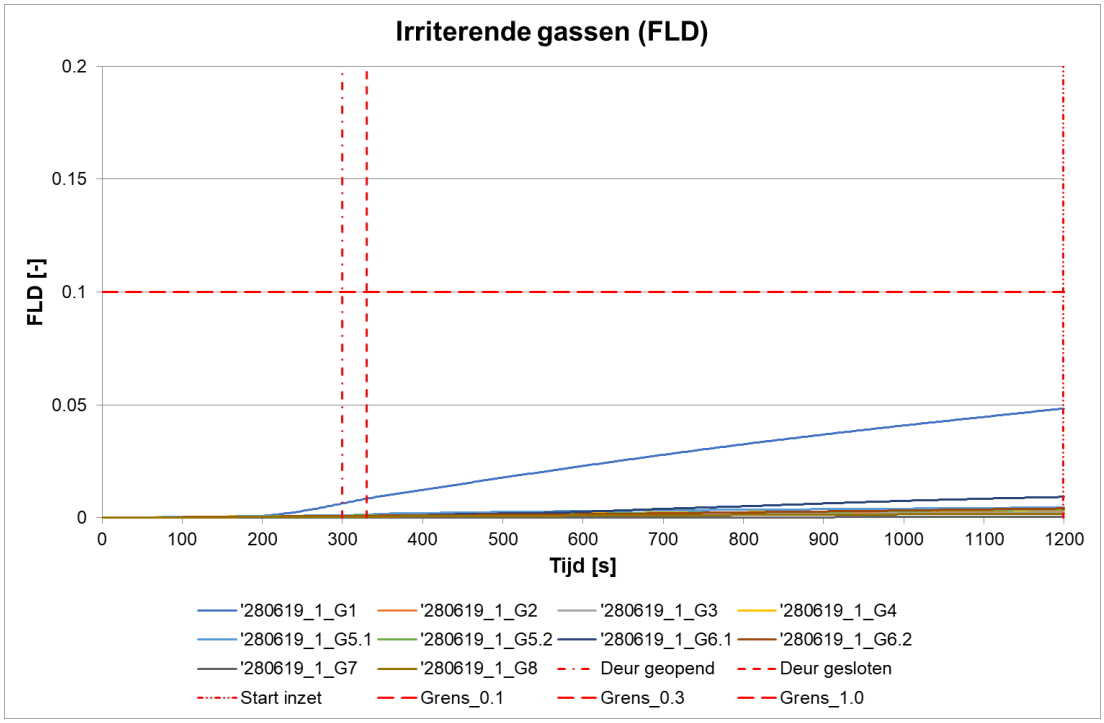
	Irritant gases (FIC)				
	Group	Threshold [-]	Safe [min.]	Impaired [min.]	Life-threatening [min.]
Fire room 1.21 G1	Highly vulnerable	0.1/0.5	2.9	4.2	> 4.2
	Vulnerable	0.3/1.5	3.6	> 55.0	-
	General	1.0/5.0	> 55.0	-	-
Residence 1.20 G2	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Residence 1.24 G3	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-

Residence 1.25 G4	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.5	5.5	> 55.0	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.5	6.7	> 55.0	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-


Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G5.1)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.1)
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Deur gesloten
Start inzet

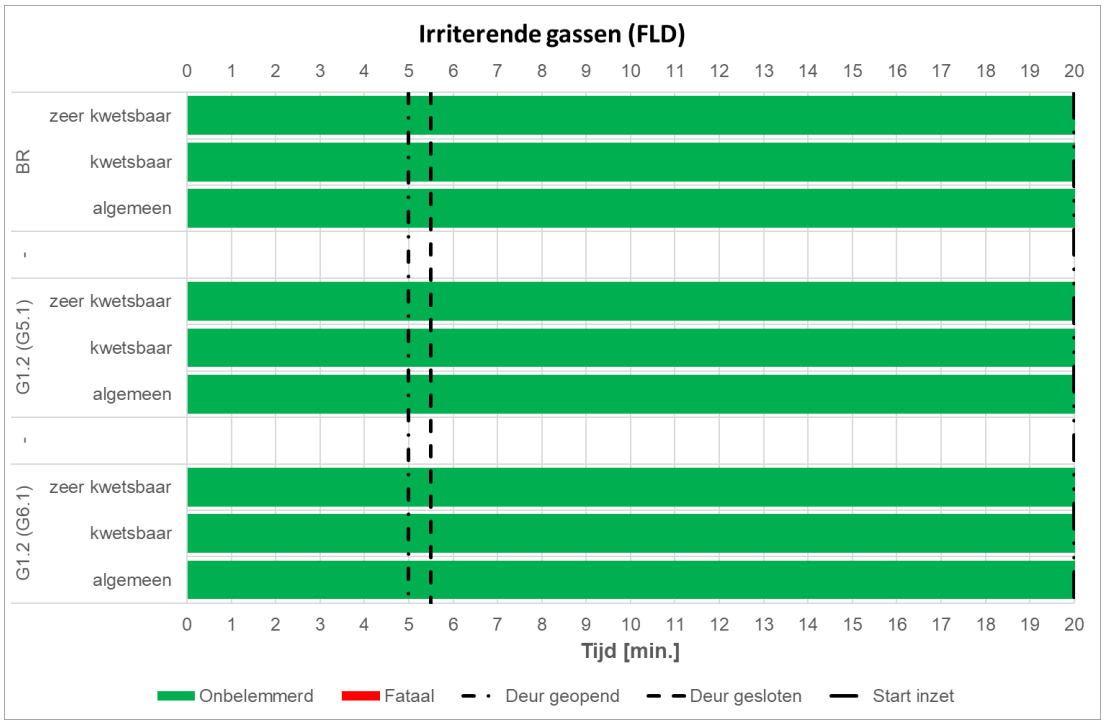

Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Deur gesloten
Start inzet


Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Deur gesloten
Start inzet

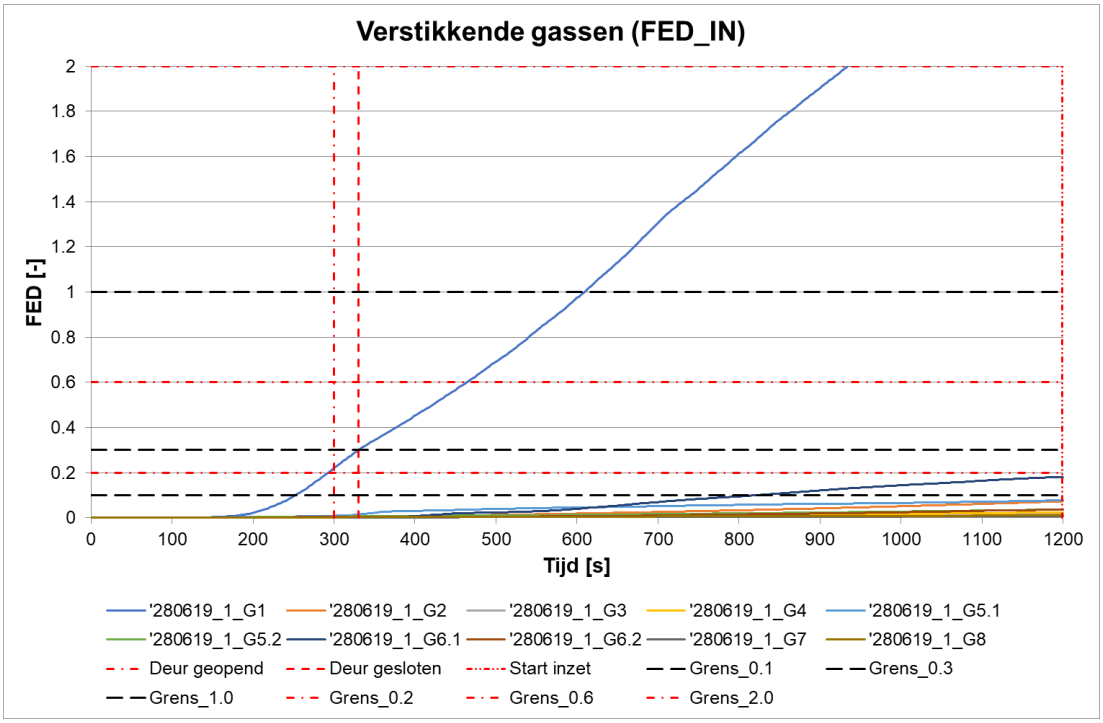

Irriterende gassen (FLD)
FLD [-]
0.2
0.15
0.1
0.05
0
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
Tijd [s]
'280619_1_G1
'280619_1_G2
'280619_1_G3
'280619_1_G4
'280619_1_G5.1
'280619_1_G5.2
'280619_1_G6.1
'280619_1_G6.2
'280619_1_G7
'280619_1_G8
Deur geopend
Deur gesloten
Start inzet
Grens_0.1
Grens_0.3
Grens_1.0

	Irritant gases (FLD)			
	Group	Threshold [-]	Safe [min.]	Impaired [min.]
Fire room 1.21 G1	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.20 G2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.24 G3	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.25 G4	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G5.1	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G5.2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G6.1	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G6.2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-

	General	1.0	> 55.0	-
Corridor 1.1 G7	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.3 G8	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-

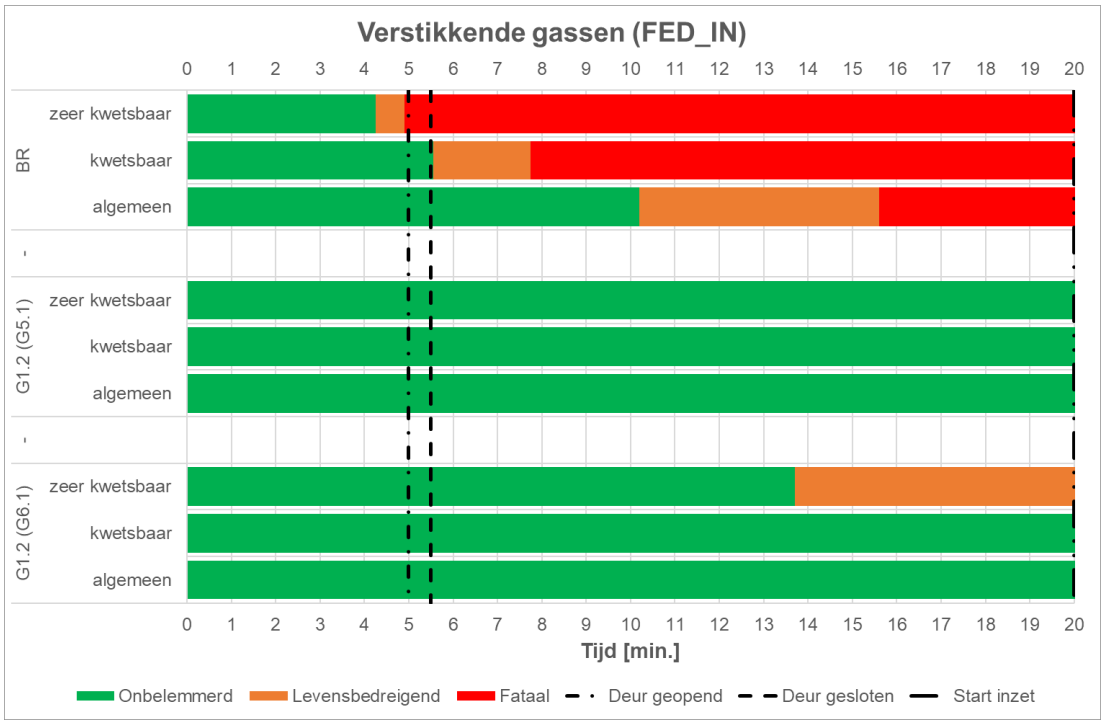


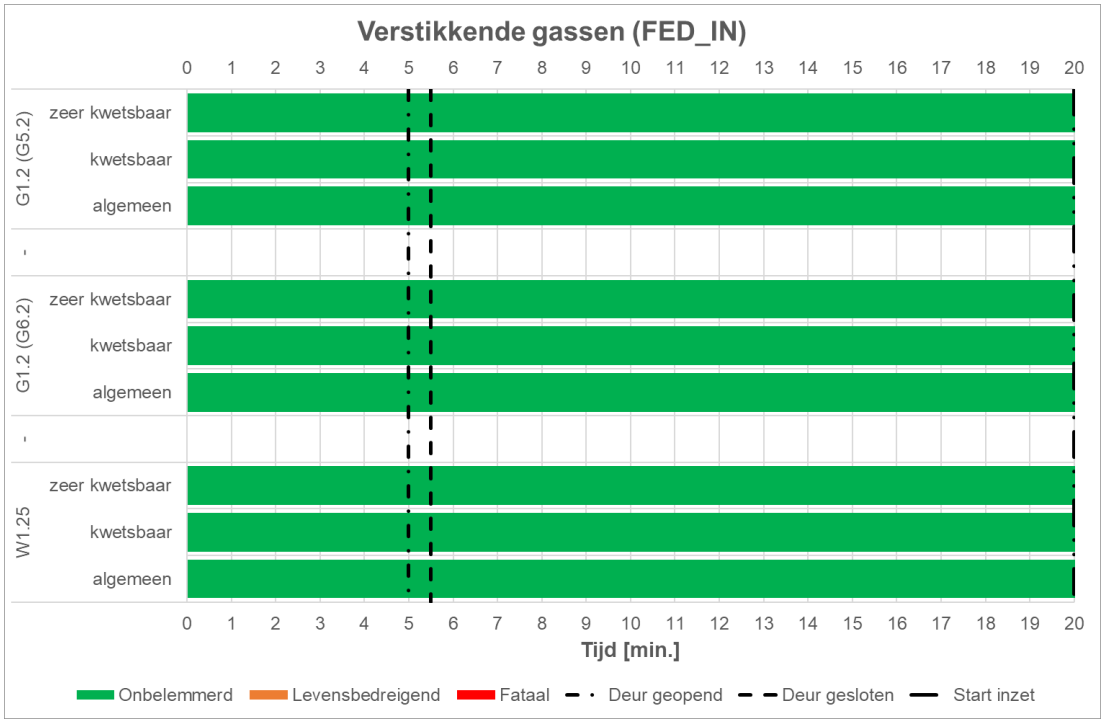
Asphyxiant gases

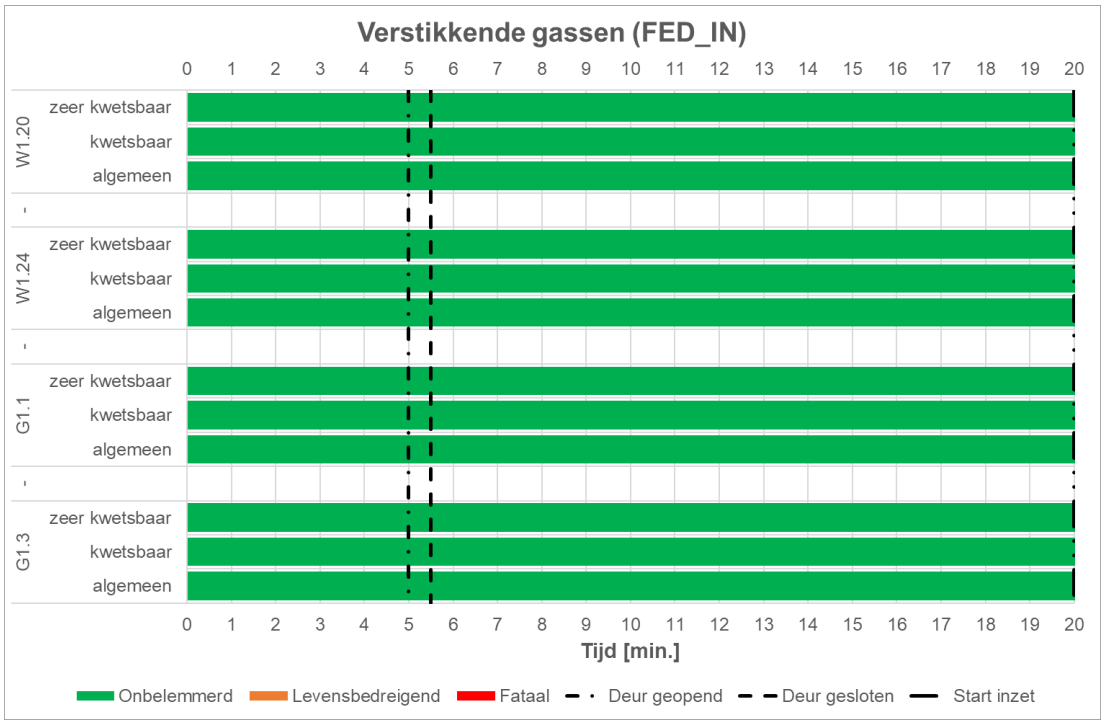


		Asphyxiant gases (FED_IN)			
	Group	Threshold [-]	Safe [min.]	Life-threatening [min.]	Fatal [min.]
Fire room 1.21 G1	Highly vulnerable	0.1/0.2	4.3	4.9	> 4.9
	Vulnerable	0.3/0.6	5.6	7.8	> 7.8
	General	1.0/2.0	10.2	15.6	> 15.6
Residence 1.20 G2	Highly vulnerable	0.1/0.2	22.8	31.5	> 31.5
	Vulnerable	0.3/0.6	38.7	> 55.0	-
	General	1.0/2.0	> 55.0	-	-
Residence 1.24 G3	Highly vulnerable	0.1/0.2	35.5	44.9	> 44.9
	Vulnerable	0.3/0.6	> 55.0	-	-
	General	1.0/2.0	> 55.0	-	-
Residence 1.25	Highly vulnerable	0.1/0.2	35.1	46.0	> 46.0

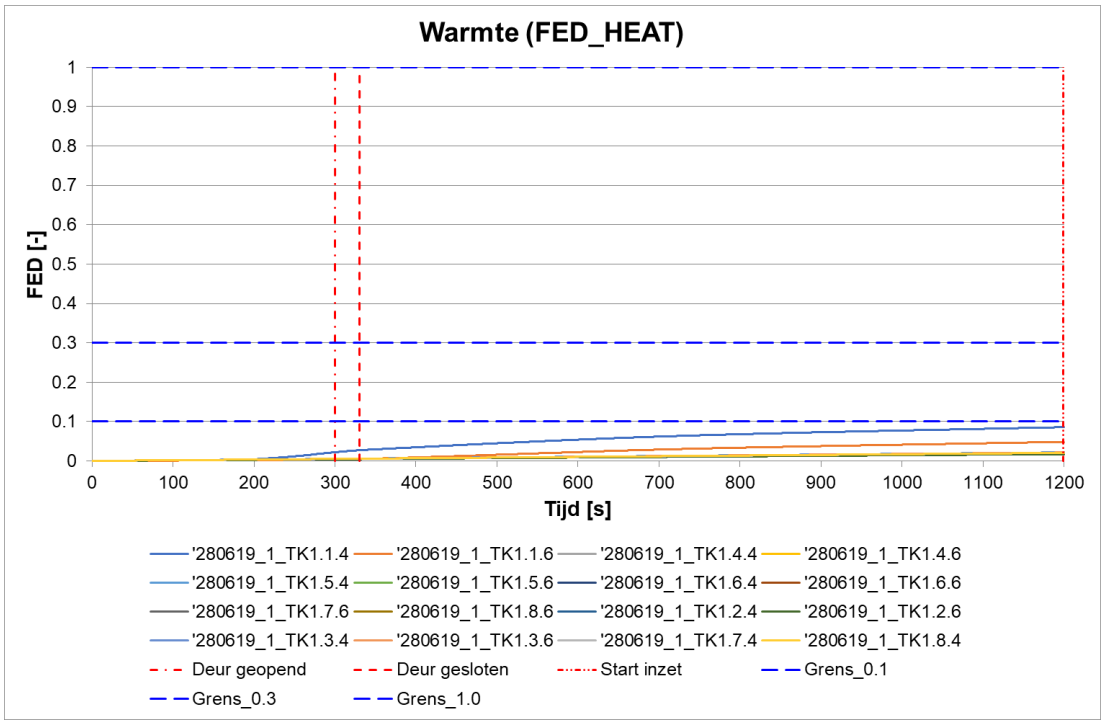
G4	Vulnerable	0.3/0.6	> 55.0	-	-
	General	1.0/2.0	> 55.0	-	-
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.2	23.6	33.7	> 33.7
	Vulnerable	0.3/0.6	37.3	> 55.0	-
	General	1.0/2.0	> 55.0	-	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.2	28.3	36.2	> 36.2
	Vulnerable	0.3/0.6	42.0	> 55.0	-
	General	1.0/2.0	> 55.0	-	-
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.2	13.7	22.2	> 22.2
	Vulnerable	0.3/0.6	45.0	> 55.0	-
	General	1.0/2.0	> 55.0	-	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.2	> 55.0	-	-
	Vulnerable	0.3/0.6	> 55.0	-	-
	General	1.0/2.0	> 55.0	-	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.2	> 55.0	-	-
	Vulnerable	0.3/0.6	> 55.0	-	-
	General	1.0/2.0	> 55.0	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.2	> 55.0	-	-
	Vulnerable	0.3/0.6	> 55.0	-	-
	General	1.0/2.0	> 55.0	-	-


Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G5.1)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.1)
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet


Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

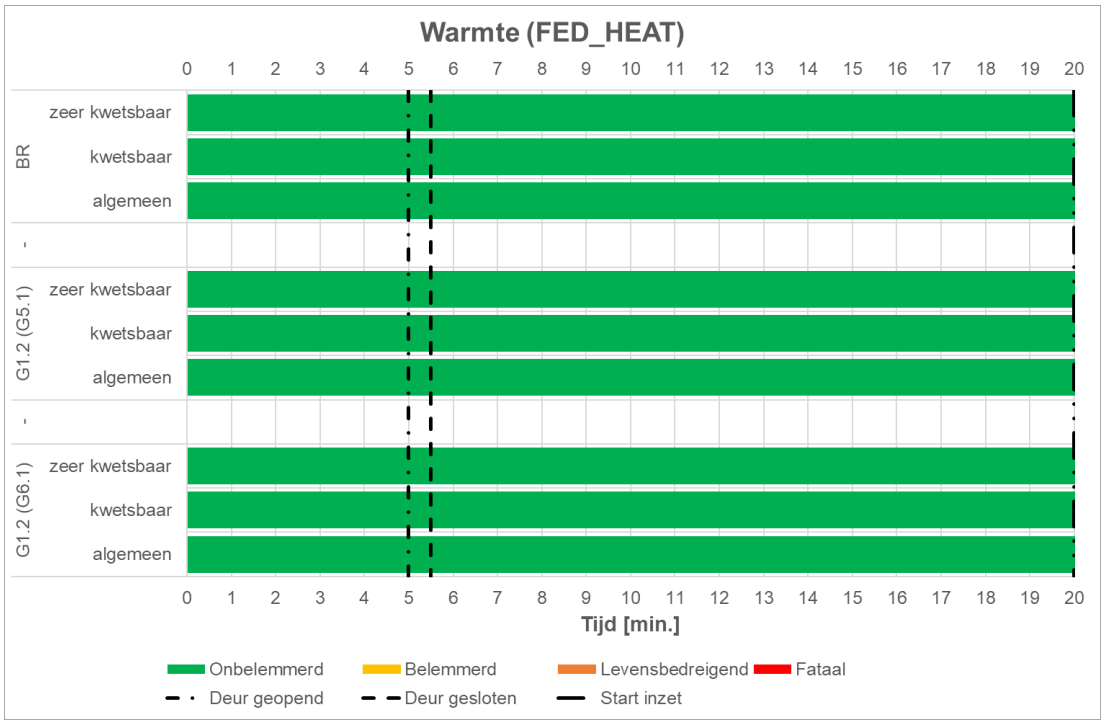

Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

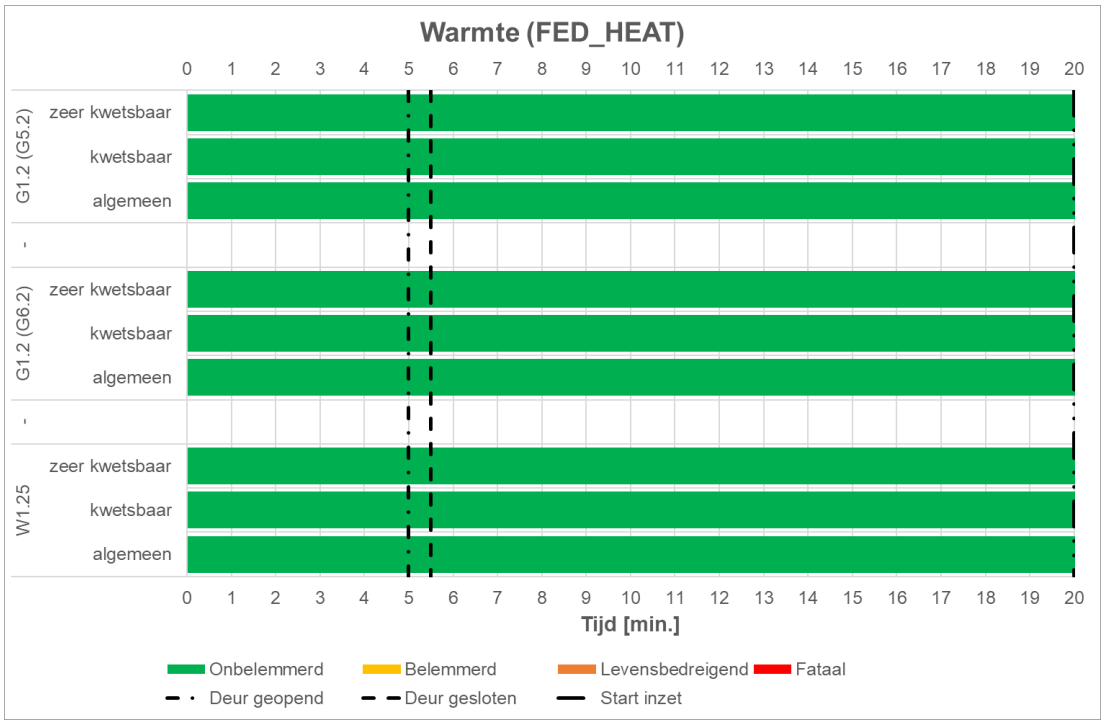
Heat

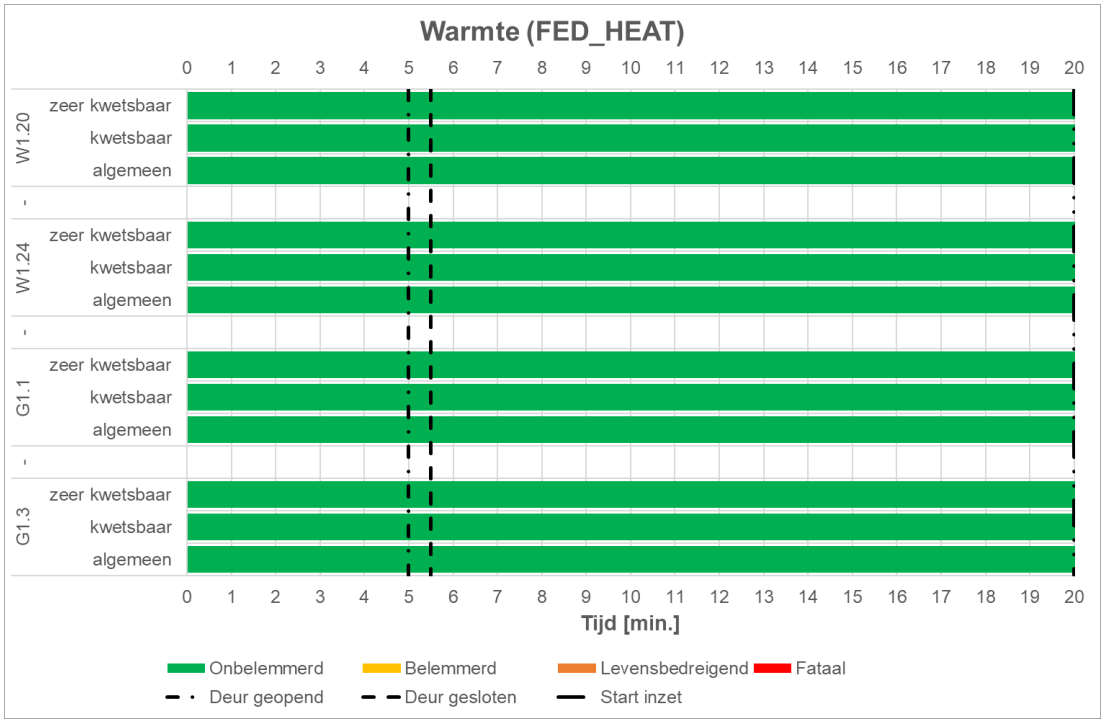

Warmte (FED_HEAT)
FED [-]
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
Tijd [s]
'280619_1_TK1.1.4
'280619_1_TK1.1.6
'280619_1_TK1.4.4
'280619_1_TK1.4.6
'280619_1_TK1.5.4
'280619_1_TK1.5.6
'280619_1_TK1.6.4
'280619_1_TK1.6.6
'280619_1_TK1.7.6
'280619_1_TK1.8.6
'280619_1_TK1.2.4
'280619_1_TK1.2.6
'280619_1_TK1.3.4
'280619_1_TK1.3.6
'280619_1_TK1.7.4
'280619_1_TK1.8.4
Deur geopend
Deur gesloten
Start inzet
Grens_0.1
Grens_0.3
Grens_1.0

		Heat (FED_HEAT)				
	Group	Threshold [-]	Safe [min.]	Impaired [min.]	Life-threatening [min.]	Fatal [min.
Fire room 1.21 G1	Highly vulnerable	0.1/0.8/1.2	25.8	> 55.0	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Residence 1.20 G2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Residence 1.24 G3	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Residence 1.25 G4	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-

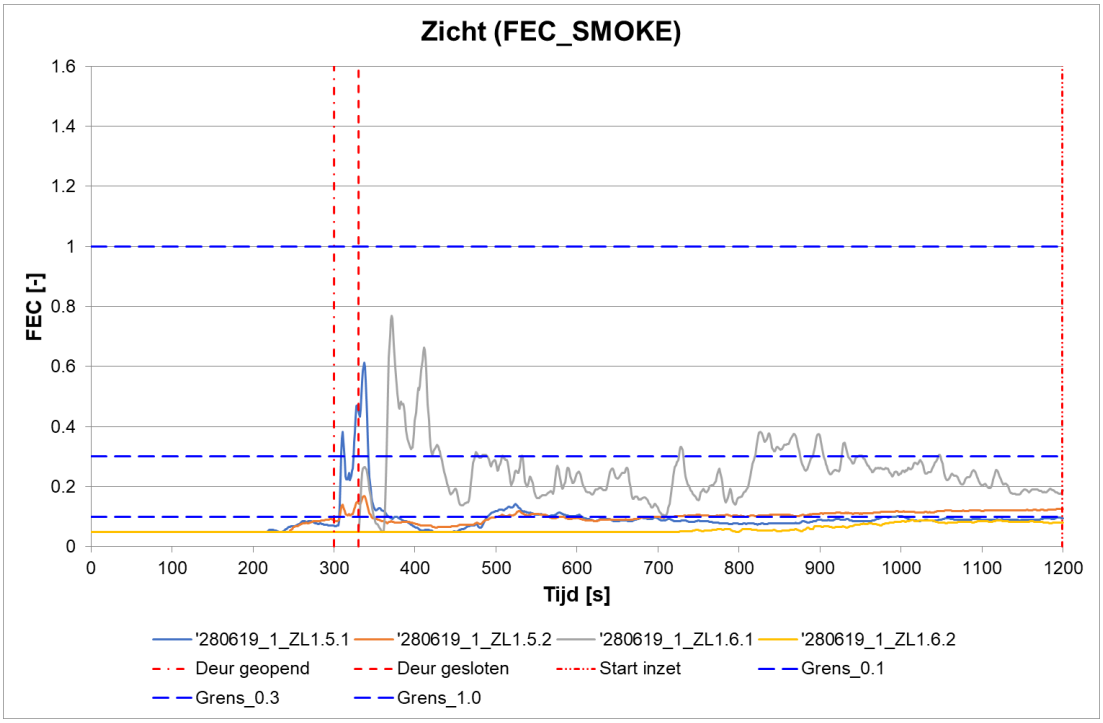
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-




Warmte (FED_HEAT)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

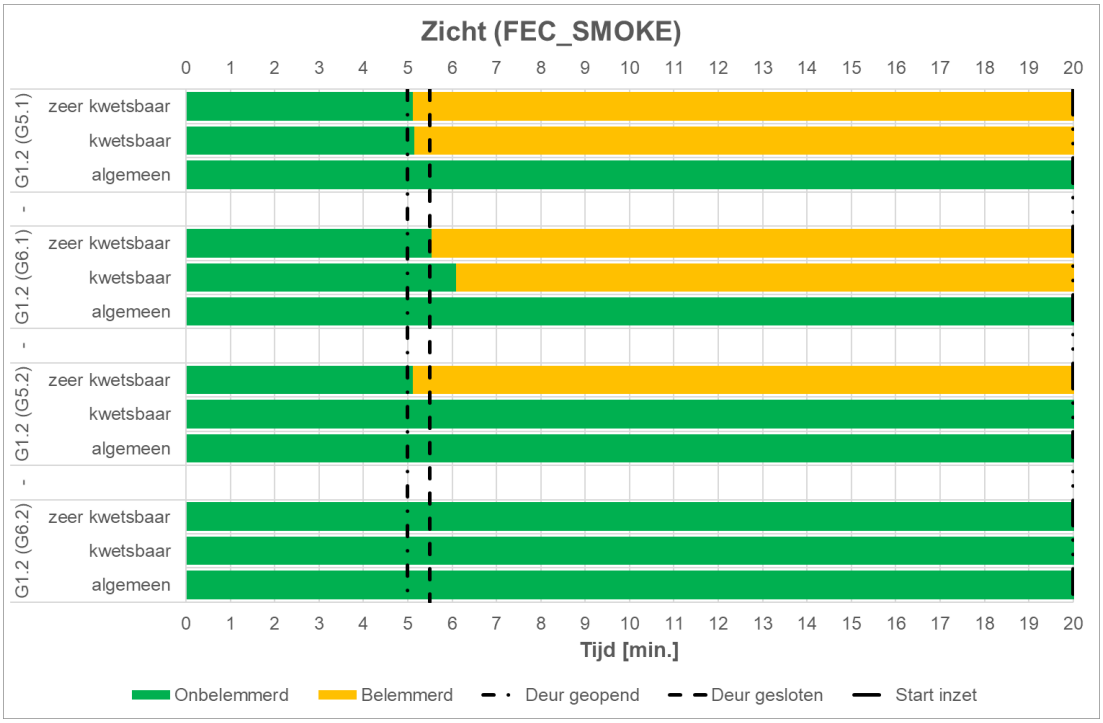

Warmte (FED_HEAT)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

Visibility

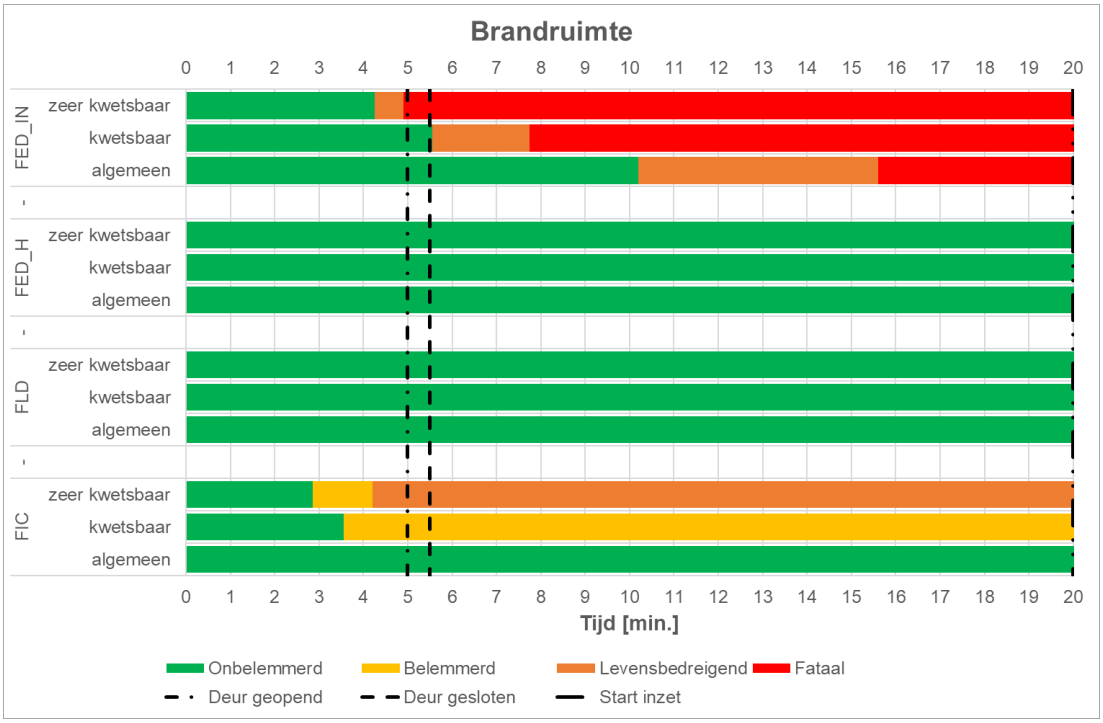


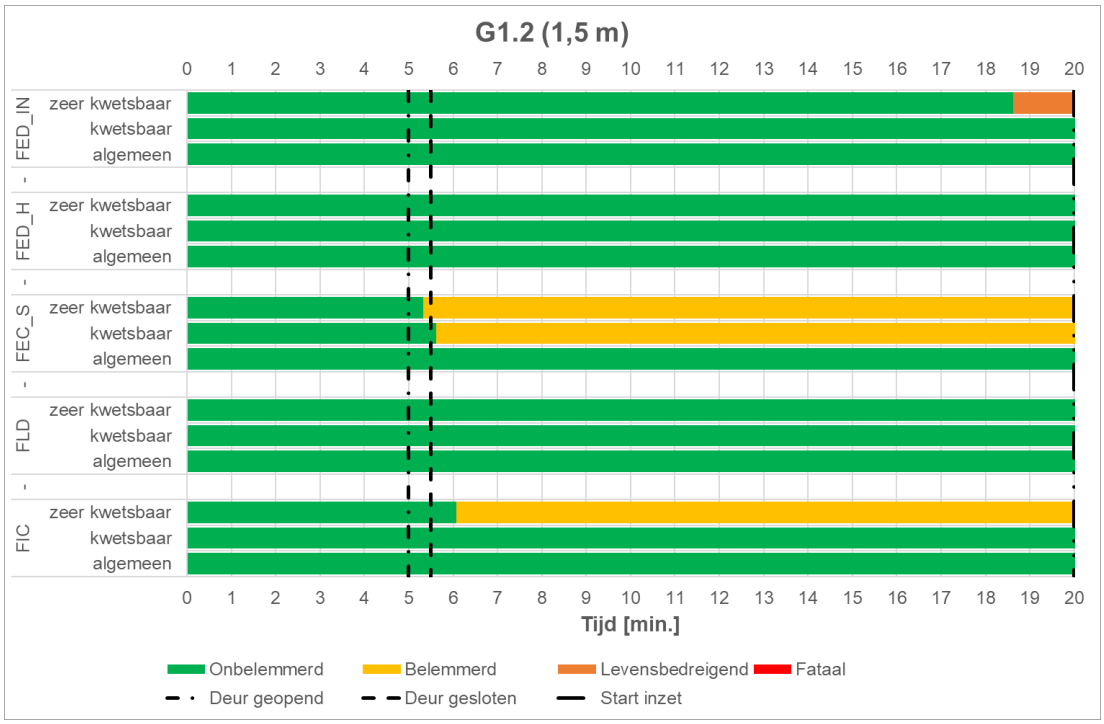
	Visibility (FEC_SMOKE)			
	Group	Threshold [-]	Safe [min.]	Impaired [min.]
Corridor 1.2 G5.1	Highly vulnerable	0.1	5.1	> 5.1
	Vulnerable	0.3	5.2	> 5.2
	General	1.0	> 55.0	-
Corridor 1.2 G5.2	Highly vulnerable	0.1	5.1	> 5.1
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G6.1	Highly vulnerable	0.1	5.5	> 5.5
	Vulnerable	0.3	6.1	> 6.1
	General	1.0	> 55.0	-
Corridor 1.2	Highly vulnerable	0.1	> 55.0	-

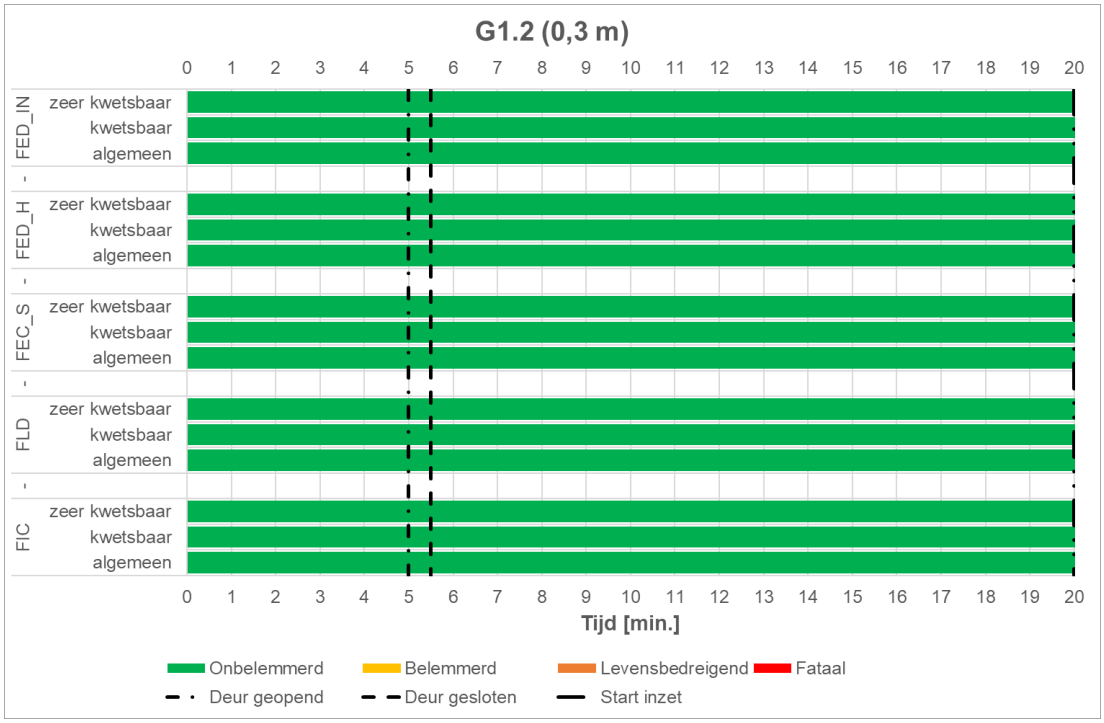
G6.2	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-



Overview

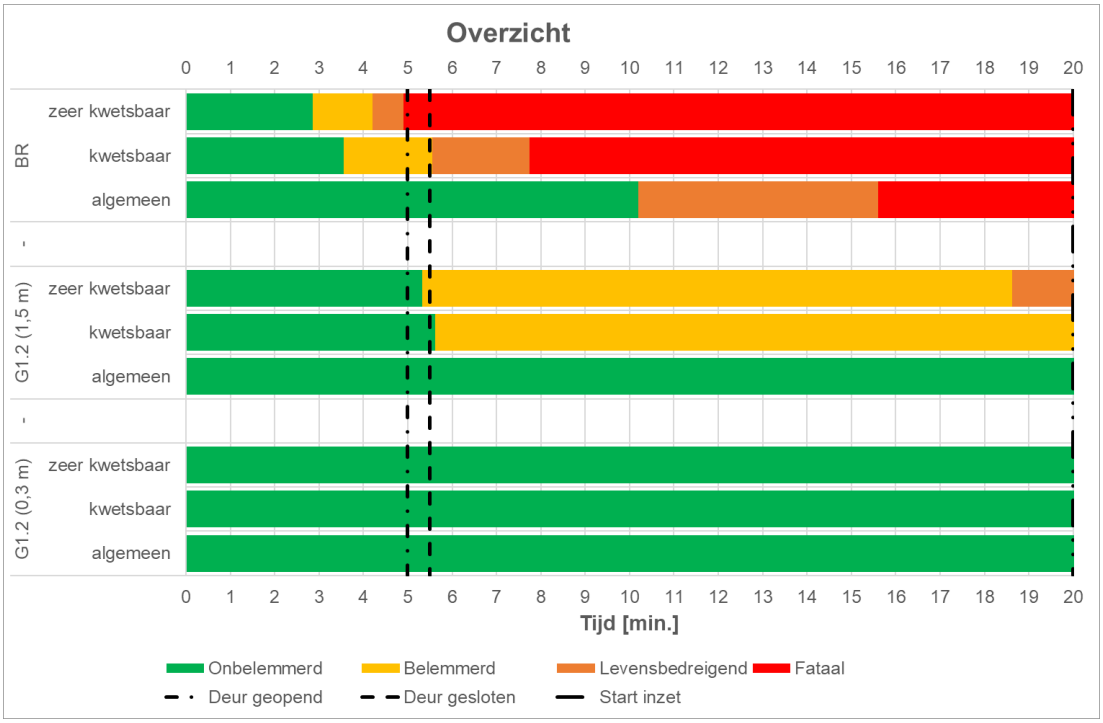


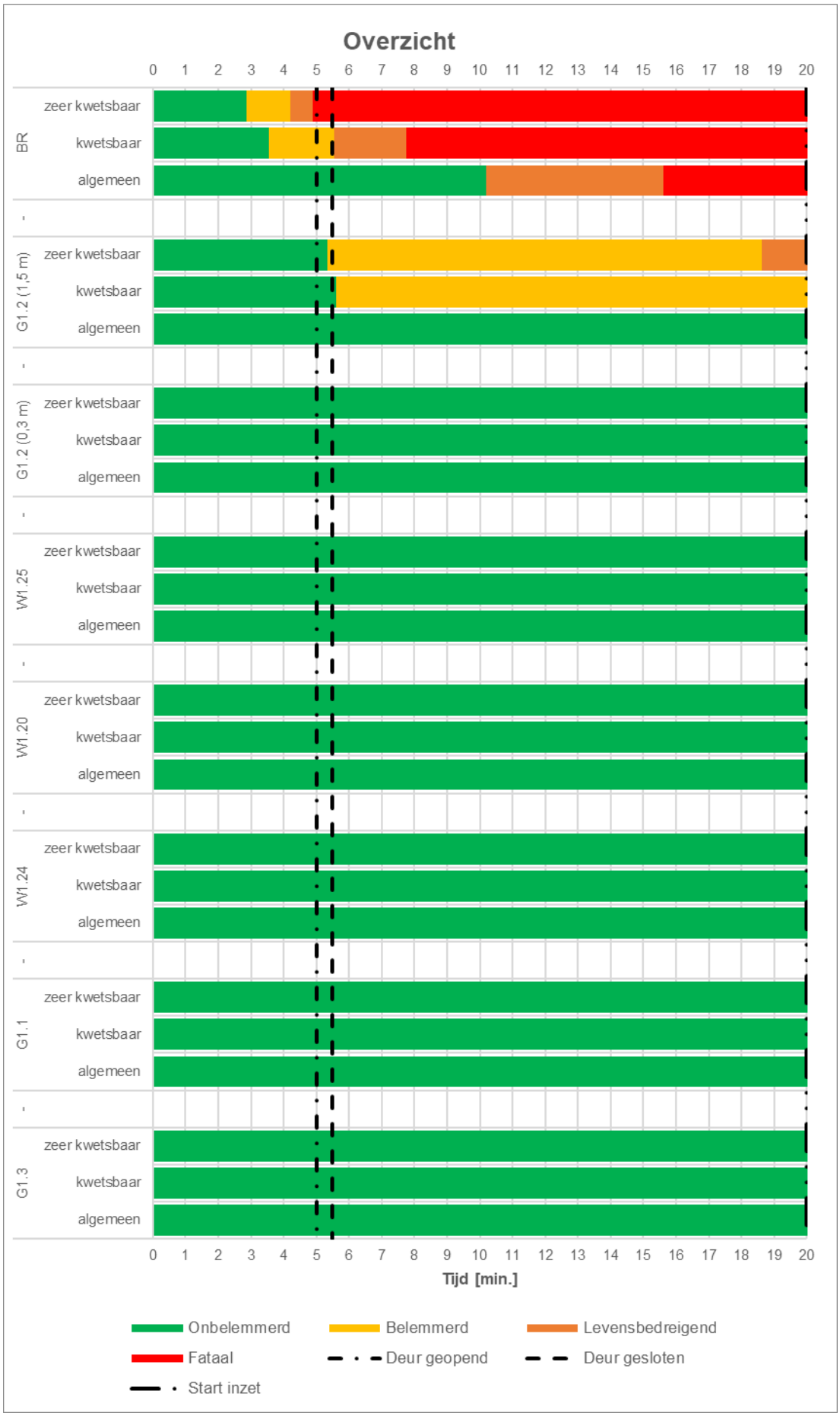

G1.2 (1,5 m)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
FED_IN
FED_H
FEC_S
FLD
FIC
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet


G1.2 (0,3 m)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
FED_IN
FED_H
FEC_S
FLD
FIC
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

	Overview	Escape	Survivability		
	Group	Safe [min.]	Impaired [min.]	Life-threatening [min.]	Fatal [min.]
Fire room 1.21 G1	Highly vulnerable	2.9	4.2	4.9	> 4.9
	Vulnerable	3.6	5.6	7.8	> 7.8
	General	10.2	10.2	15.6	> 15.6
Residence 1.20 G2	Highly vulnerable	22.8	22.8	31.5	> 31.5
	Vulnerable	38.7	38.7	> 55.0	-
	General	> 55.0	-	-	-
Residence 1.24 G3	Highly vulnerable	35.5	35.5	44.9	> 44.9
	Vulnerable	> 55.0	-	-	-
	General	> 55.0	-	-	-
Residence 1.25 G4	Highly vulnerable	35.1	35.1	46.0	> 46.0
	Vulnerable	> 55.0	-	-	-
	General	> 55.0	-	-	-
Corridor 1.2 G5.1	Highly vulnerable	5.1	23.6	33.7	> 33.7
	Vulnerable	5.2	37.3	> 55.0	-
	General	> 55.0	-	-	-
Corridor 1.2 G5.2	Highly vulnerable	5.1	28.3	36.2	> 36.2
	Vulnerable	42.0	42.0	> 55.0	-
	General	> 55.0	-	-	-
Corridor 1.2 G6.1	Highly vulnerable	5.5	13.7	22.2	> 22.2
	Vulnerable	6.1	45.0	> 55.0	-
	General	> 55.0	-	-	-
Corridor 1.2	Highly vulnerable	> 55.0	-	-	-

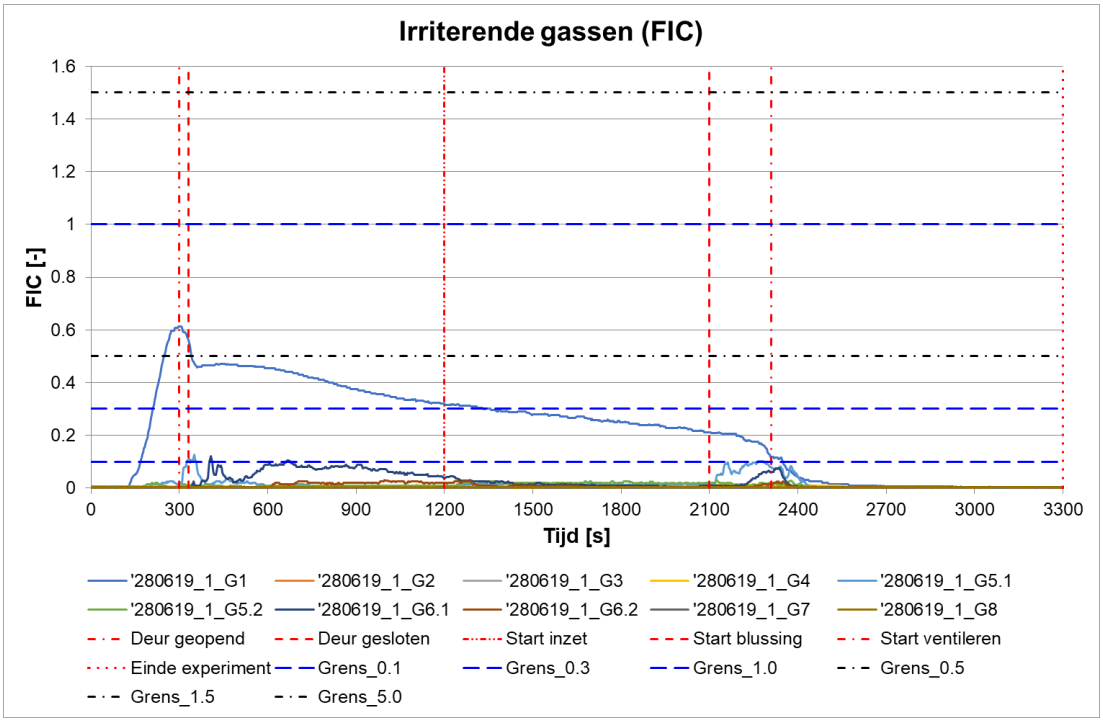
G6.2	Vulnerable	> 55.0	-	-	-
	General	> 55.0	-	-	-
Corridor 1.1 G7	Highly vulnerable	> 55.0	-	-	-
	Vulnerable	> 55.0	-	-	-
	General	> 55.0	-	-	-
Corridor 1.3 G8	Highly vulnerable	> 55.0	-	-	-
	Vulnerable	> 55.0	-	-	-
	General	> 55.0	-	-	-

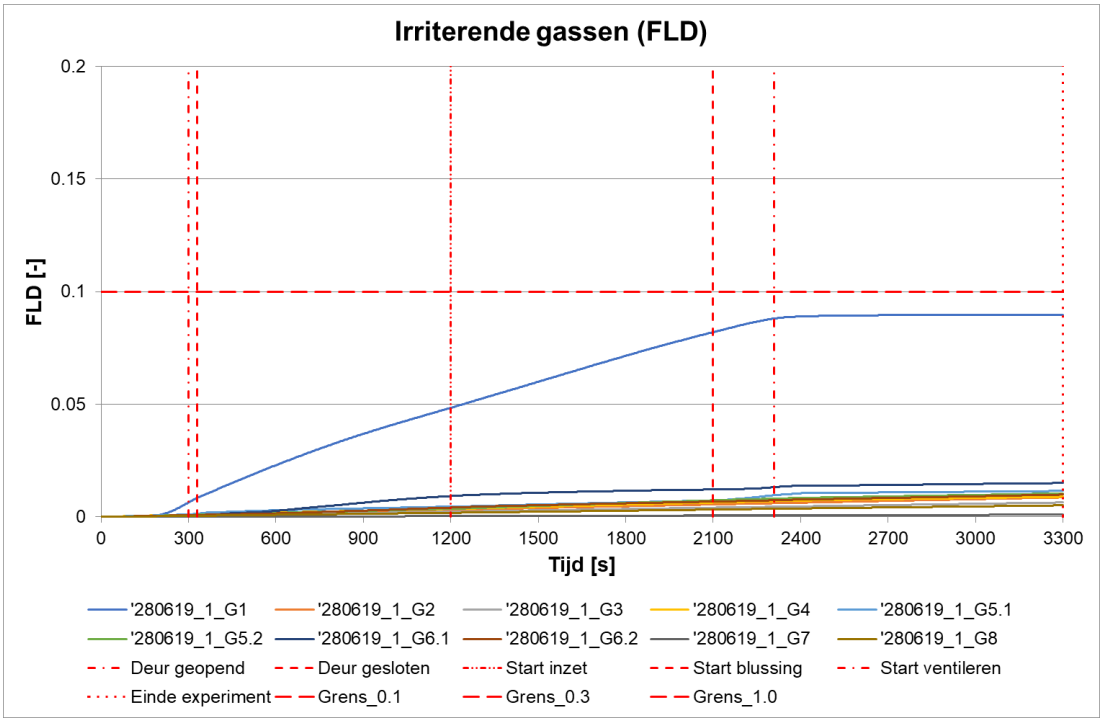



Overzicht
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (1,5 m)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (0,3 m)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

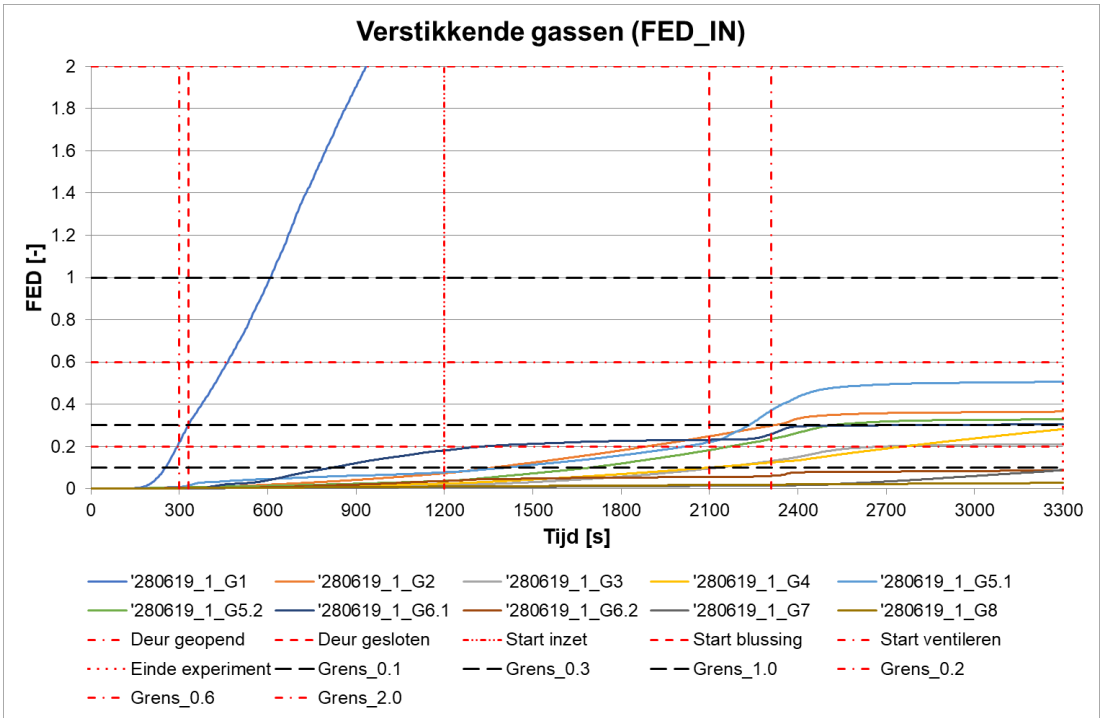
C. Deployment phase (20 - 55 minutes)

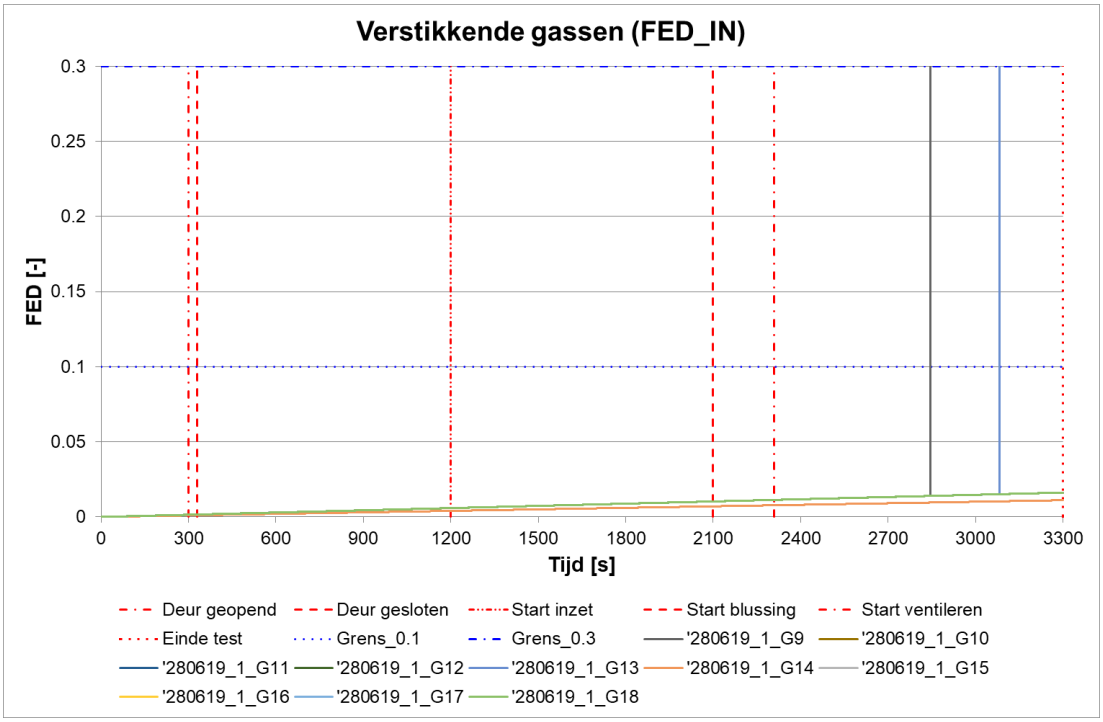
Irritant gases



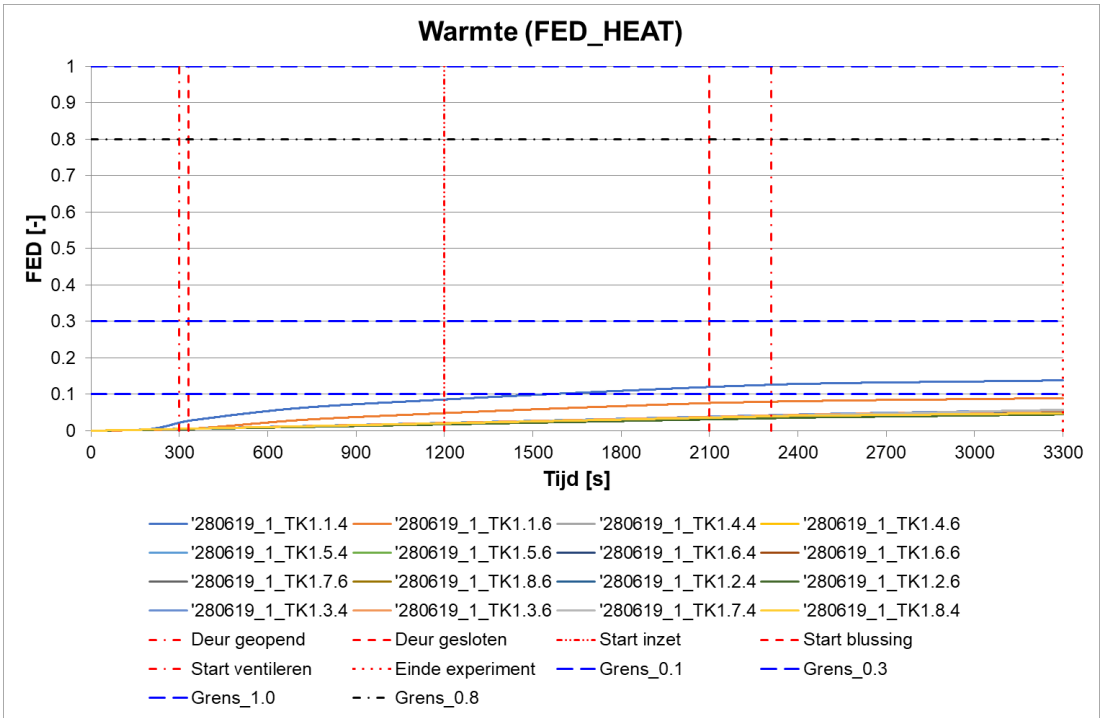


Asphyxiant gases

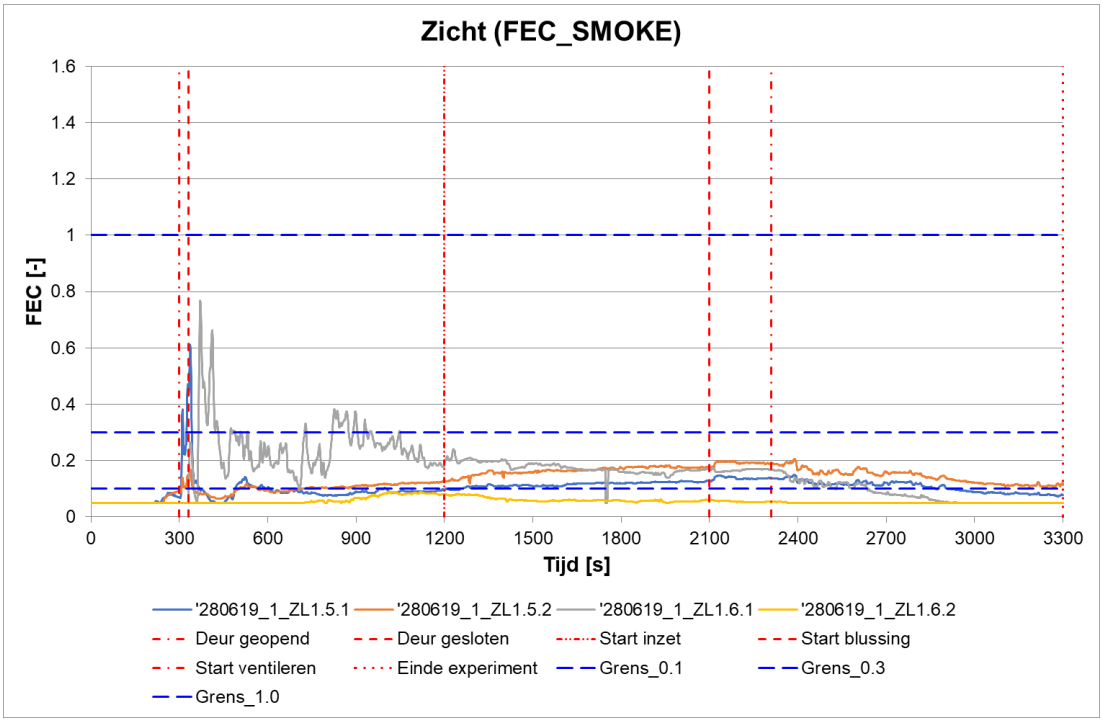




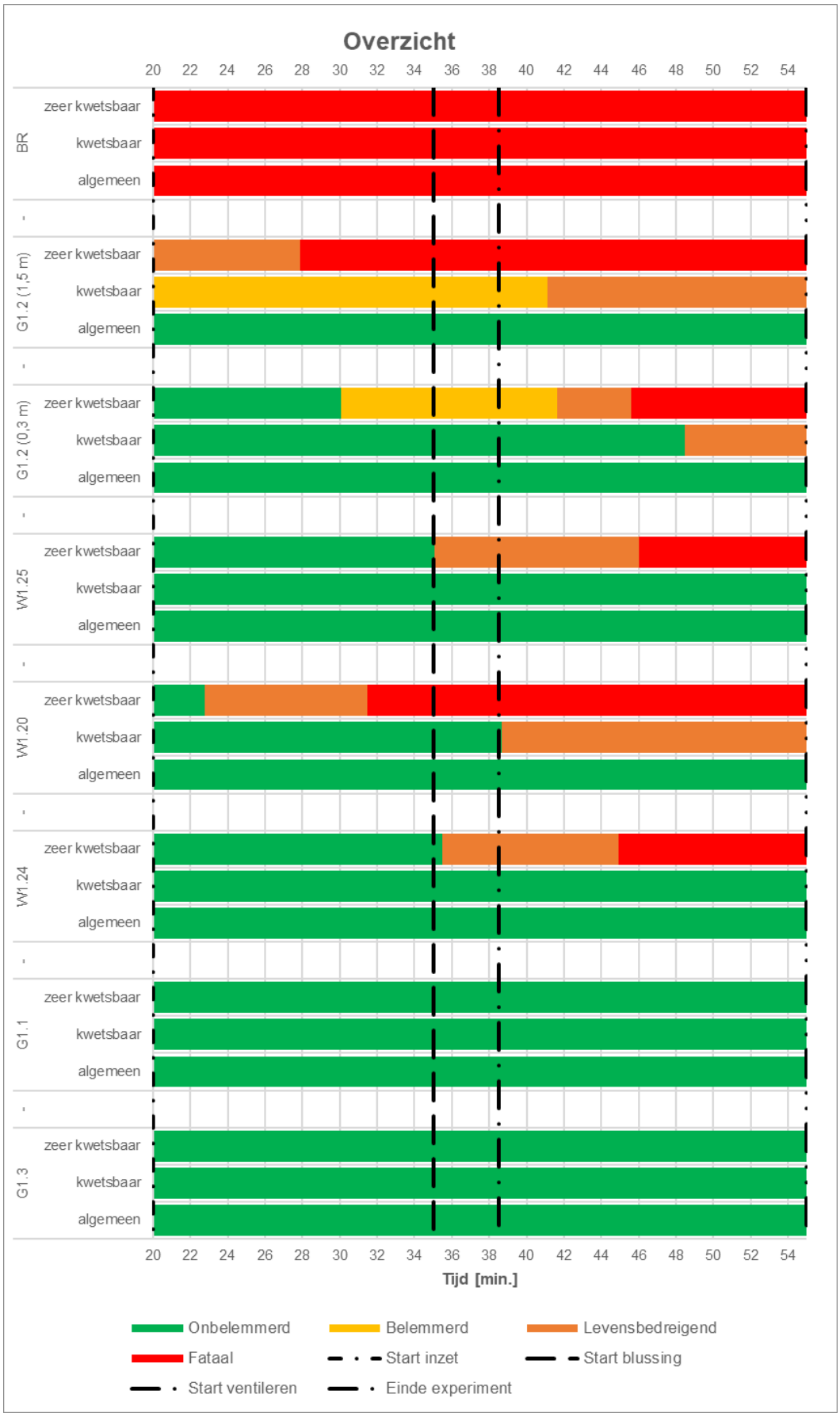
Heat



Visibility



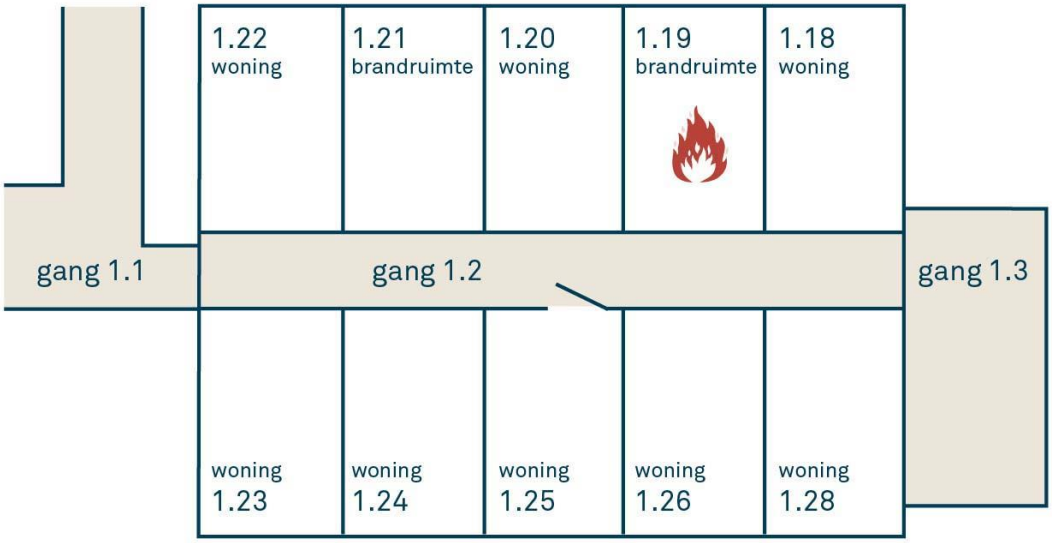
Overview


Overzicht
20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54
BR
G1.2 (1,5 m)
G1.2 (0,3 m)
W1.25
W1.20
W1.24
G1.1
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
-
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Start inzet
Start blussing
Start ventileren
Einde experiment

Test 9 (variant 2: mobile water mist and door open) 28/06/2019

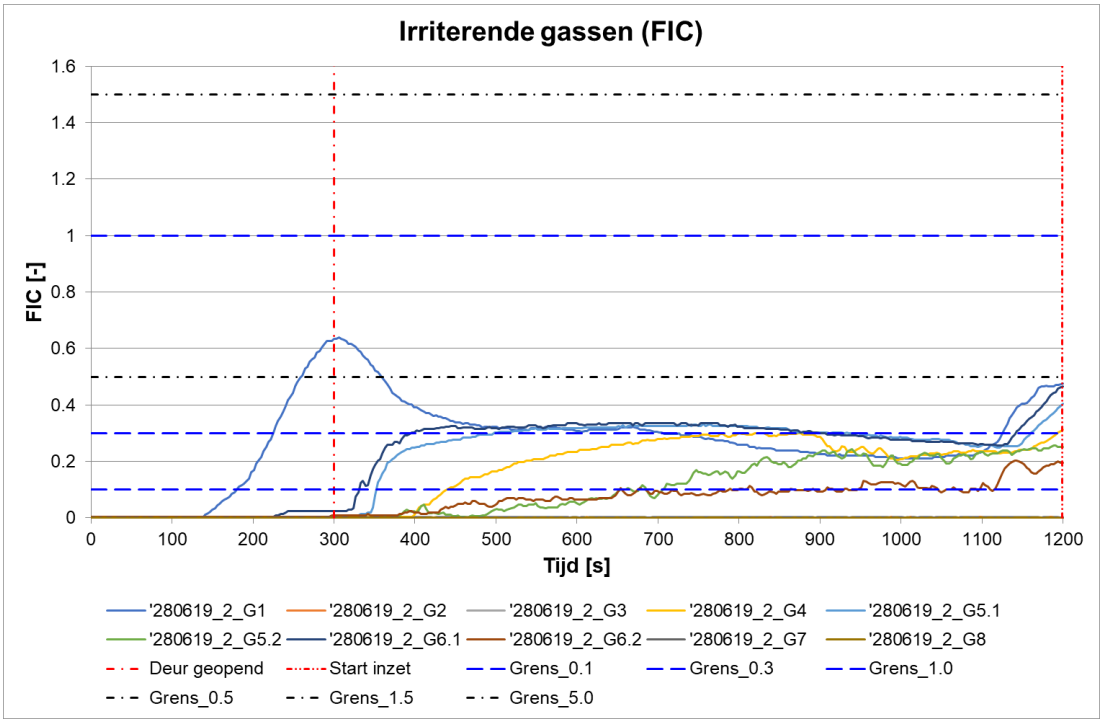
A. Description of the test

Test number	9
Date	28/06/2019
Morning / afternoon	Afternoon
Fire room	1.19
Door to the fire room open / closed	Open
Fire service deployment	Offensive interior attack
Extra measures	Mobile water mist
Specific aspects	Mobile w mist was activated 2 minutes and 5 seconds after the start of the test.



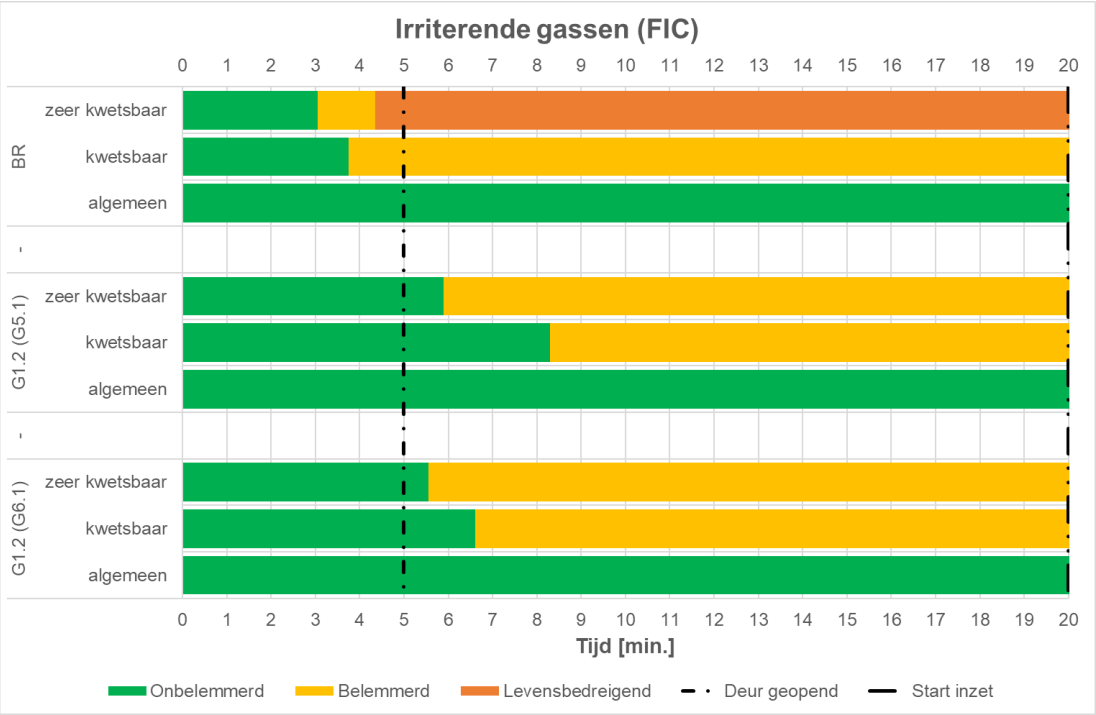
B. Escape phase (0 - 20 minutes)

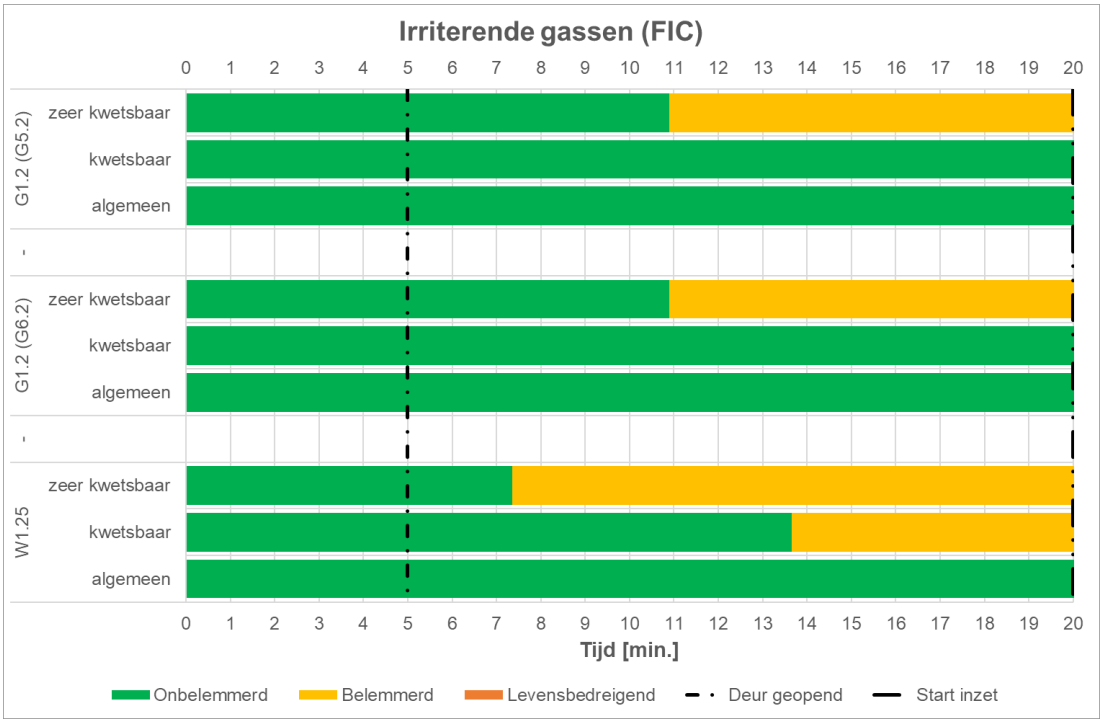
Irritant gases

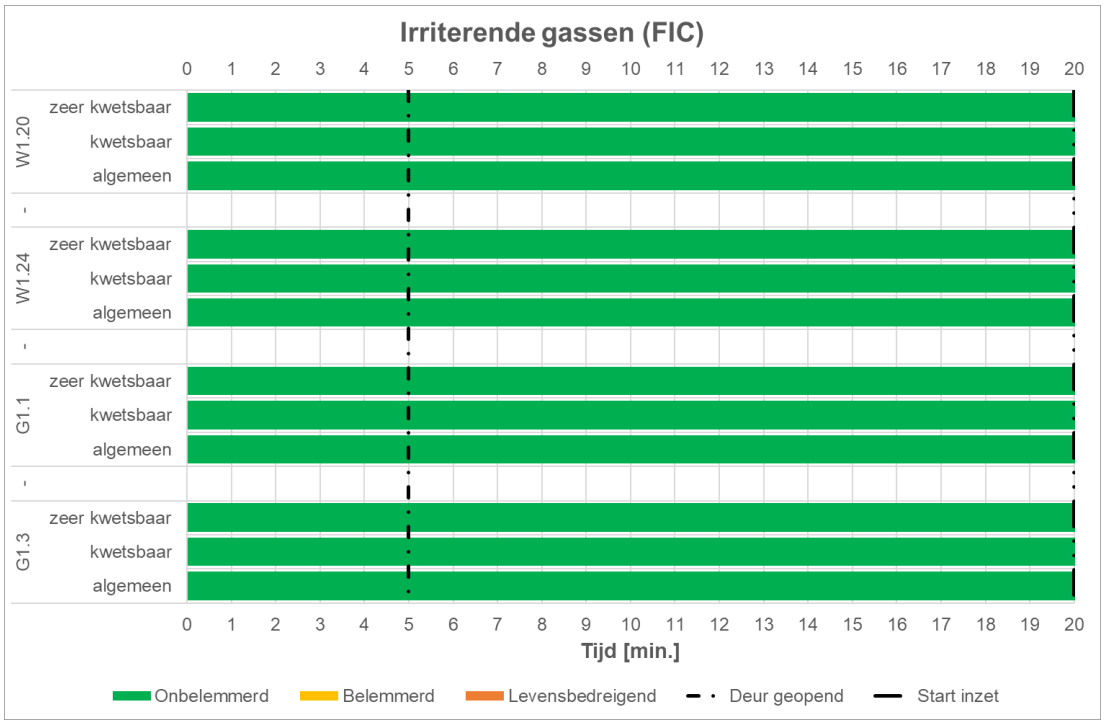


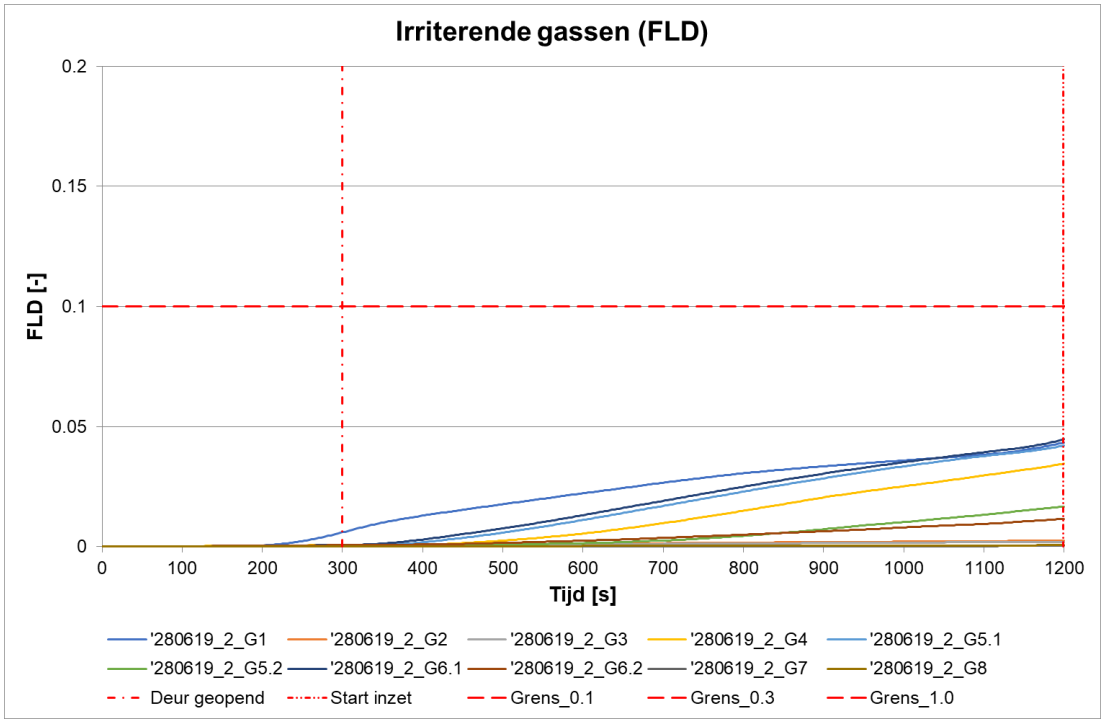
	Irritant gases (FIC)				
	Group	Threshold [-]	Safe [min.]	Impaired [min.]	Life-threatening [min.]
Fire room 1.19 G1	Highly vulnerable	0.1/0.5	3.1	4.4	> 4.4
	Vulnerable	0.3/1.5	3.8	> 55.0	-
	General	1.0/5.0	> 55.0	-	-
Residence 1.20 G2	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Residence 1.24 G3	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-

Residence 1.25 G4	Highly vulnerable	0.1/0.5	7.4	21.2	> 21.2
	Vulnerable	0.3/1.5	13.7	> 55.0	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.5	5.9	20.8	> 20.8
	Vulnerable	0.3/1.5	8.3	> 55.0	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.5	10.9	> 55.0	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.5	5.6	20.5	> 20.5
	Vulnerable	0.3/1.5	6.6	> 55.0	-
	General	1.0/5.0	21.4	> 55.0	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.5	10.9	> 55.0	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.5	22.7	> 55.0	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-


Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G5.1)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.1)
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Start inzet

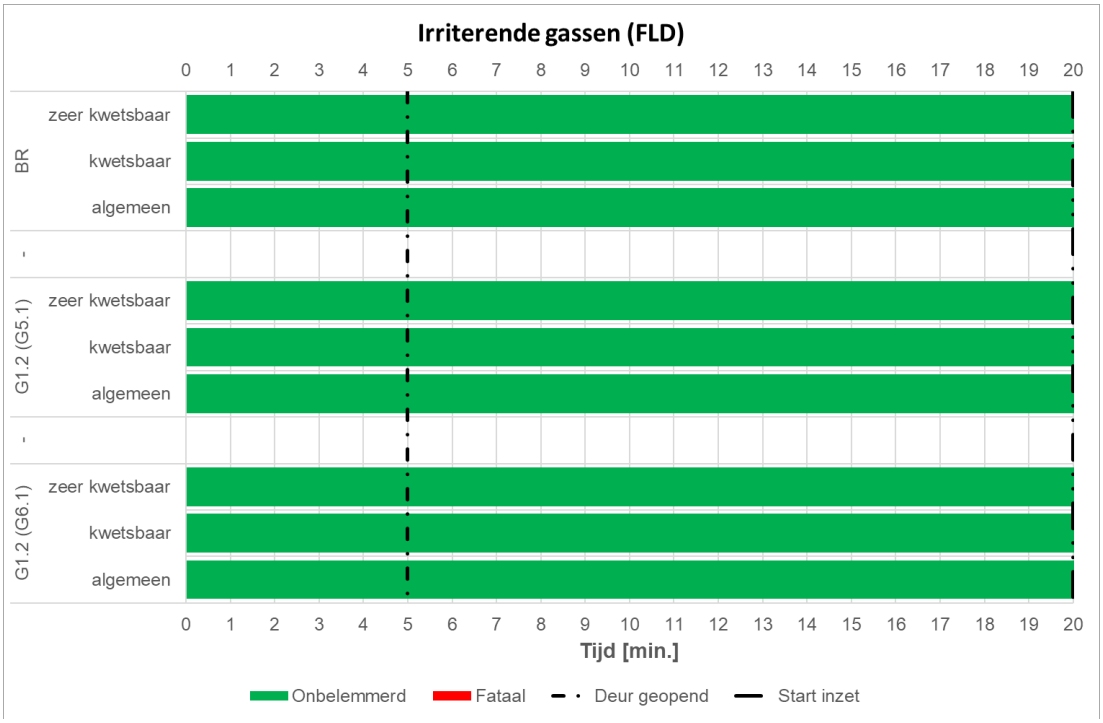

Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Start inzet


Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Start inzet

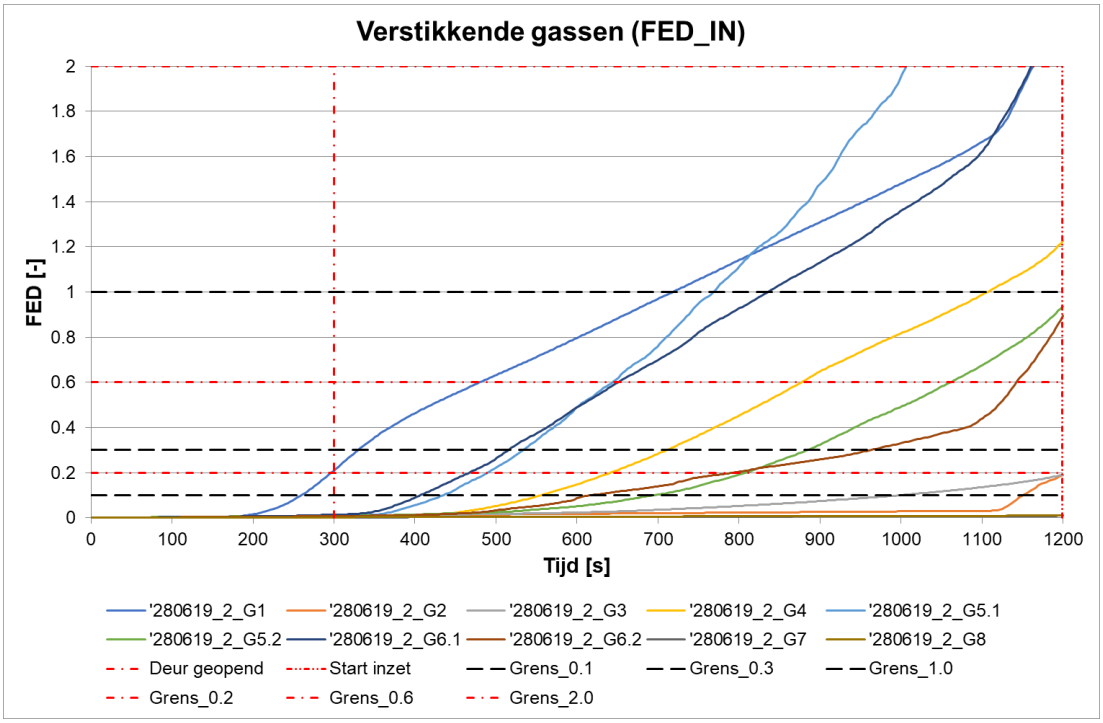

Irriterende gassen (FLD)
0.2
0.15
0.1
0.05
0
FLD [-]
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
Tijd [s]
'280619_2_G1
'280619_2_G2
'280619_2_G3
'280619_2_G4
'280619_2_G5.1
'280619_2_G5.2
'280619_2_G6.1
'280619_2_G6.2
'280619_2_G7
'280619_2_G8
Deur geopend
Start inzet
Grens_0.1
Grens_0.3
Grens_1.0

Irritant gases (FLD)				
	Group	Threshold [-]	Safe [min.]	Impaired [min.]
Fire room 1.19 G1	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.20 G2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.24 G3	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.25 G4	Highly vulnerable	0.1	> 24.9	> 24.9
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G5.1	Highly vulnerable	0.1	> 23.8	> 23.8
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G5.2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G6.1	Highly vulnerable	0.1	> 23.1	> 23.1
	Vulnerable	0.3	> 55.0	-

	General	1.0	> 55.0	-
Corridor 1.2 G6.2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.1 G7	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.3 G8	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-

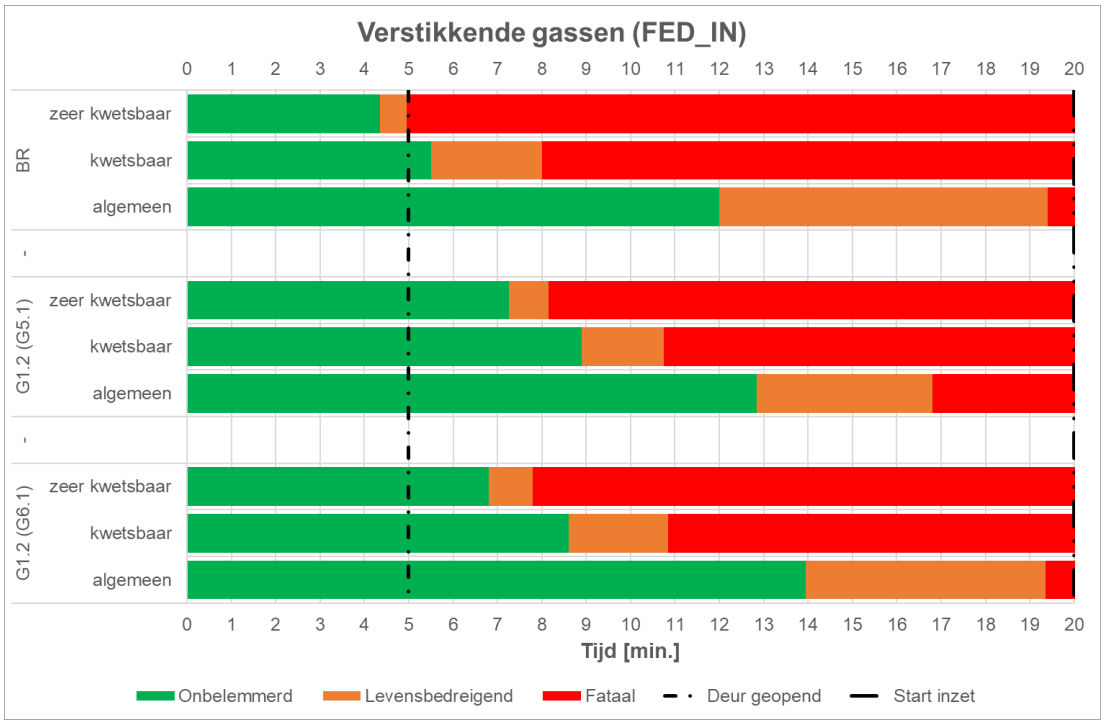


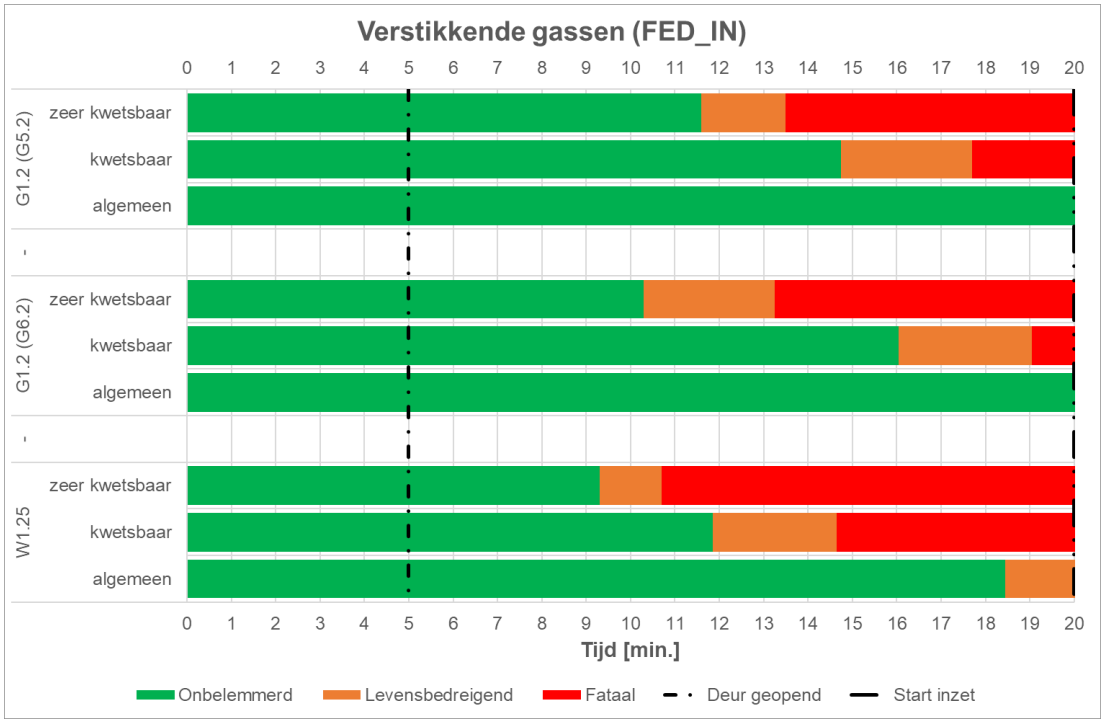
Asphyxiant gases

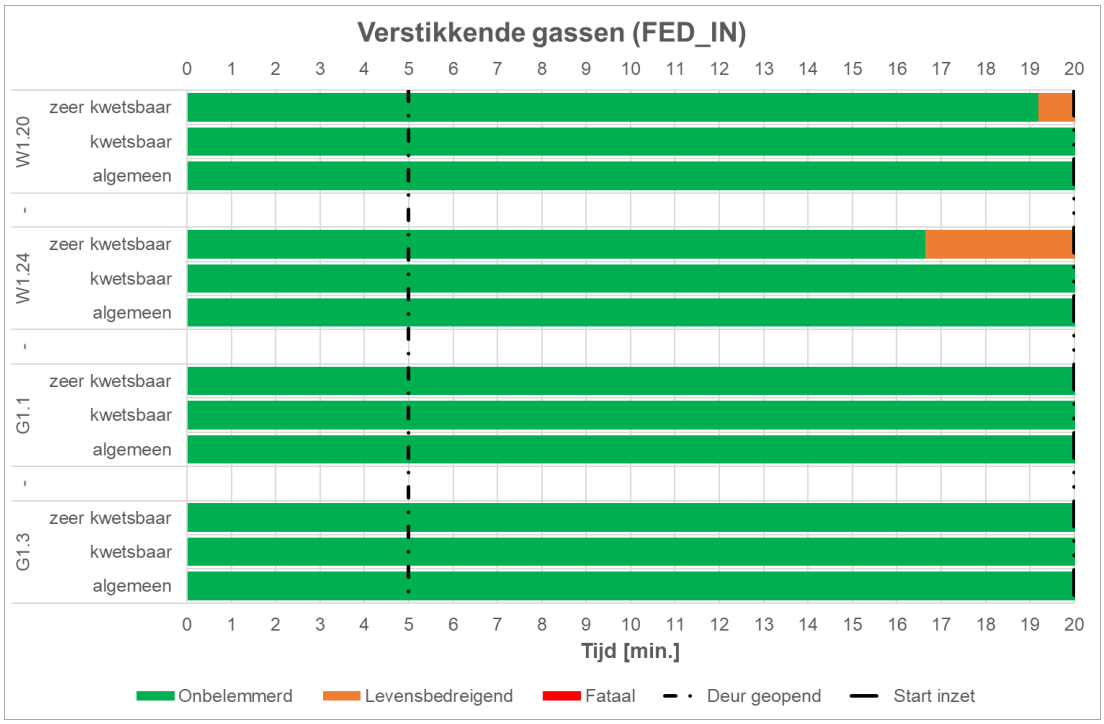


		Asphyxiant gases (FED_IN)			
	Group	Threshold [-]	Safe [min.]	Life-threatening [min.]	Fatal [min.]
Fire room 1.19 G1	Highly vulnerable	0.1/0.2	4.4	5.0	> 5.0
	Vulnerable	0.3/0.6	5.5	8.0	> 8.0
	General	1.0/2.0	12.0	19.4	> 19.4
Residence 1.20 G2	Highly vulnerable	0.1/0.2	19.2	20.1	> 20.1
	Vulnerable	0.3/0.6	20.9	25.9	> 25.9
	General	1.0/2.0	26.9	29.9	> 29.9
Residence 1.24 G3	Highly vulnerable	0.1/0.2	16.7	20.3	> 20.3
	Vulnerable	0.3/0.6	21.8	24.8	> 24.8
	General	1.0/2.0	27.8	31.7	> 31.7
Residence 1.25	Highly vulnerable	0.1/0.2	9.3	10.7	> 10.7

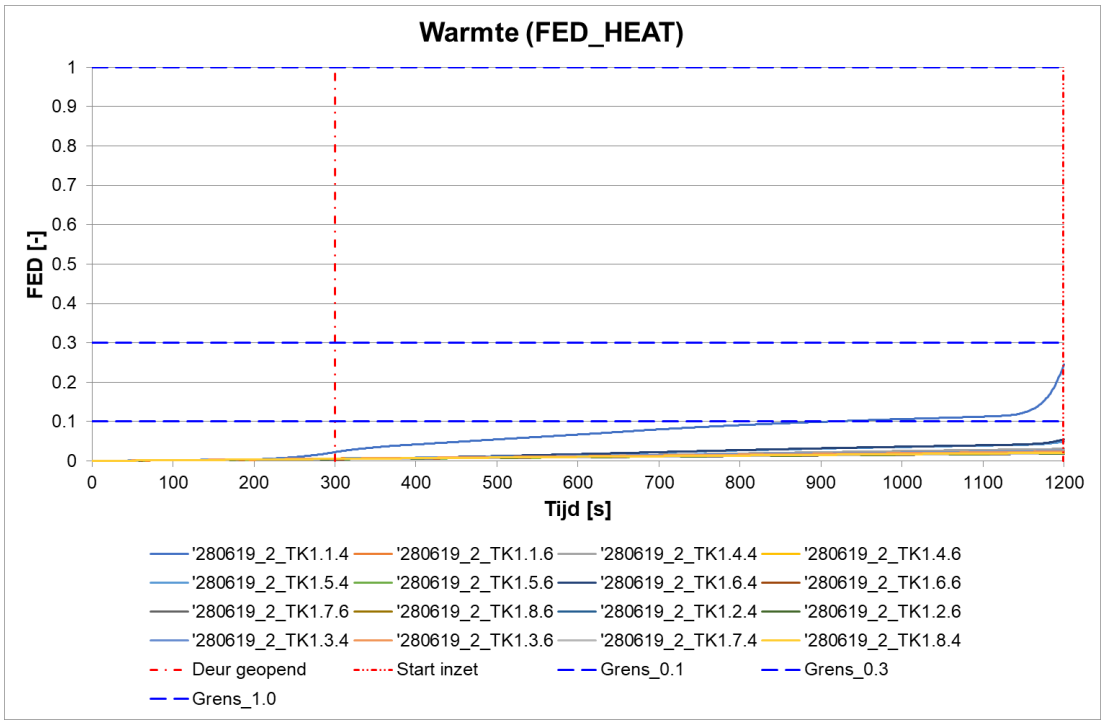
G4	Vulnerable	0.3/0.6	11.9	14.7	> 14.7
	General	1.0/2.0	18.5	21.4	> 21.4
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.2	7.3	8.2	> 8.2
	Vulnerable	0.3/0.6	8.9	10.8	> 10.8
	General	1.0/2.0	12.9	16.8	> 16.8
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.2	11.6	13.5	> 13.5
	Vulnerable	0.3/0.6	14.8	17.7	> 17.7
	General	1.0/2.0	20.4	24.4	> 24.4
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.2	6.8	7.8	> 7.8
	Vulnerable	0.3/0.6	8.6	10.9	> 10.9
	General	1.0/2.0	14.0	19.4	> 19.4
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.2	10.3	13.3	> 13.3
	Vulnerable	0.3/0.6	16.1	19.1	> 19.1
	General	1.0/2.0	20.3	25.9	> 25.9
Corridor 1.1 G7	Highly vulnerable	0.1/0.2	28.1	30.4	> 30.4
	Vulnerable	0.3/0.6	32.4	37.2	> 37.2
	General	1.0/2.0	41.9	52.1	> 52.1
Corridor 1.3 G8	Highly vulnerable	0.1/0.2	23.3	25.5	> 25.5
	Vulnerable	0.3/0.6	26.5	28.9	> 28.9
	General	1.0/2.0	34.1	41.3	> 41.3


Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G5.1)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.1)
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet


Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet

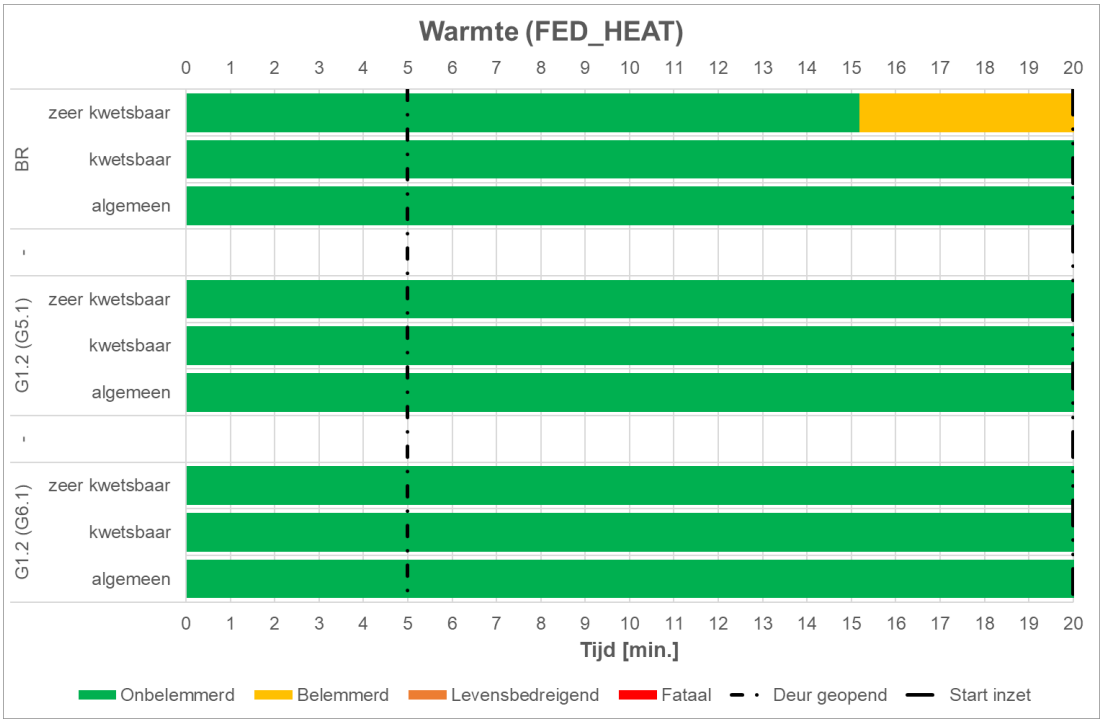

Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet

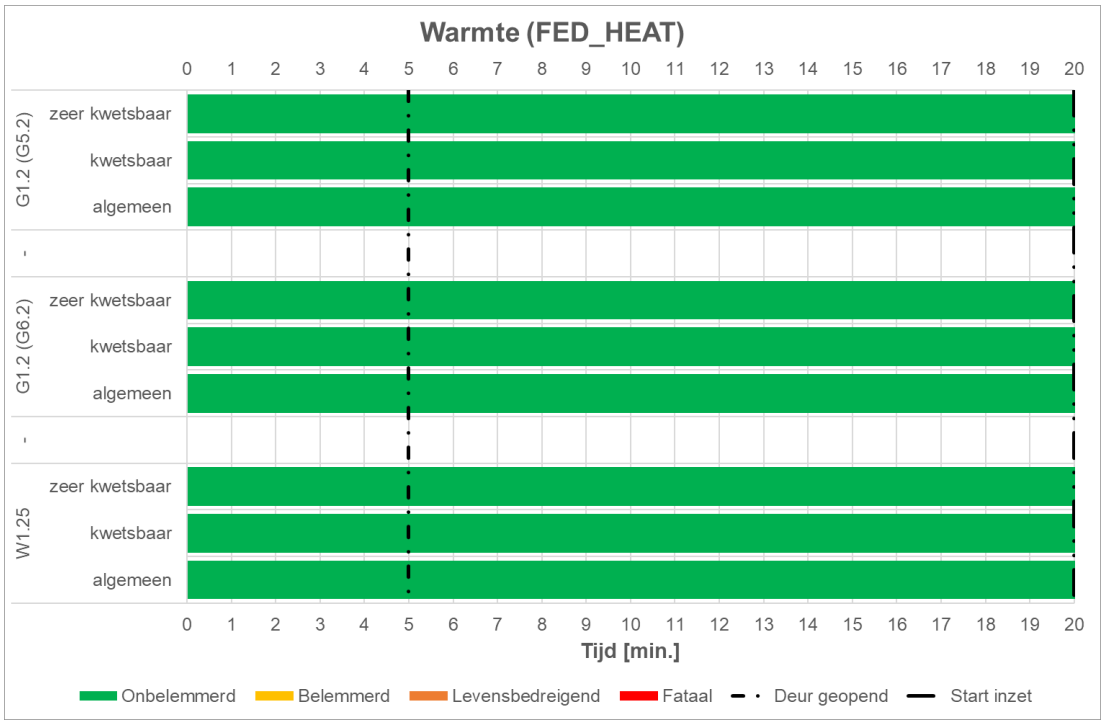
Heat

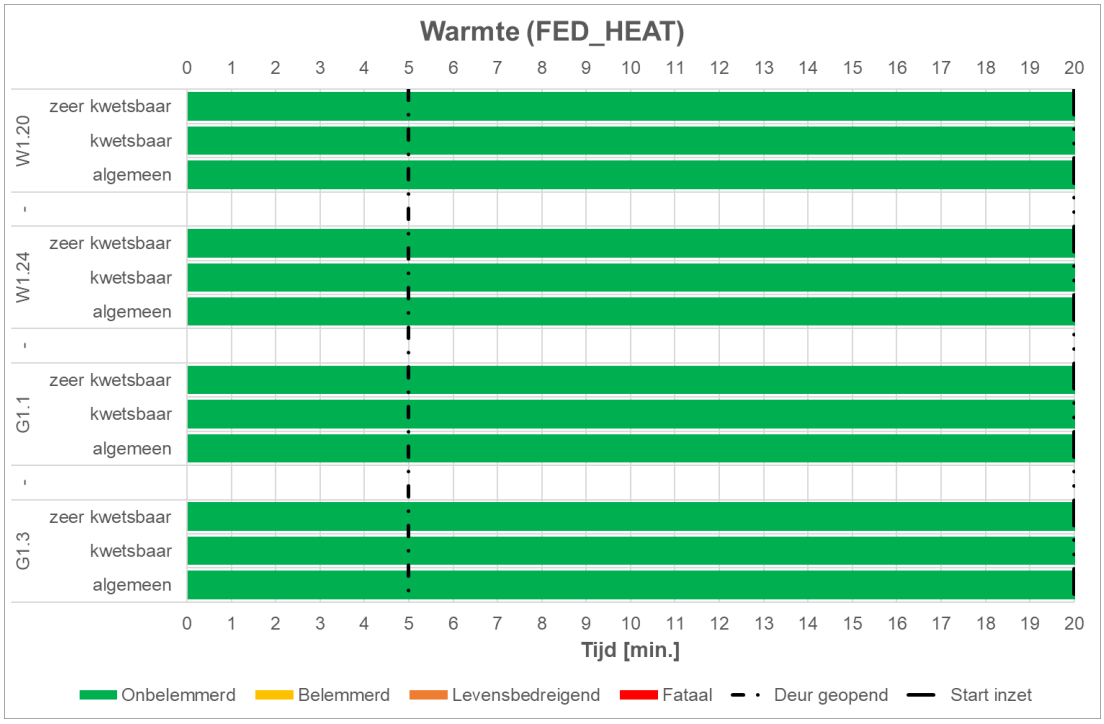

Warmte (FED_HEAT)
FED [-]
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
Tijd [s]
'280619_2_TK1.1.4
'280619_2_TK1.1.6
'280619_2_TK1.4.4
'280619_2_TK1.4.6
'280619_2_TK1.5.4
'280619_2_TK1.5.6
'280619_2_TK1.6.4
'280619_2_TK1.6.6
'280619_2_TK1.7.6
'280619_2_TK1.8.6
'280619_2_TK1.2.4
'280619_2_TK1.2.6
'280619_2_TK1.3.4
'280619_2_TK1.3.6
'280619_2_TK1.7.4
'280619_2_TK1.8.4
Deur geopend
Start inzet
Grens_0.1
Grens_0.3
Grens_1.0

Heat (FED_HEAT)						
	Group	Threshold [-]	Safe [min.]	Impaired [min.]	Life-threatening [min.]	Fatal [min.]
Fire room 1.19 G1	Highly vulnerable	0.1/0.8/1.2	15.2	20.8	21.0	> 21.0
	Vulnerable	0.3/2.4/12.0	20.2	21.5	21.9	> 21.9
	General	1.0/8.0/12.0	20.9	23.6	> 55.0	-
Residence 1.20 G2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Residence 1.24 G3	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Residence 1.25 G4	Highly vulnerable	0.1/0.8/1.2	23.5	> 55.0	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.8/1.2	21.1	> 55.0	-	-
	Vulnerable	0.3/2.4/12.0	22.4	> 55.0	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2	Highly vulnerable	0.1/0.8/1.2	20.8	> 55.0	-	-

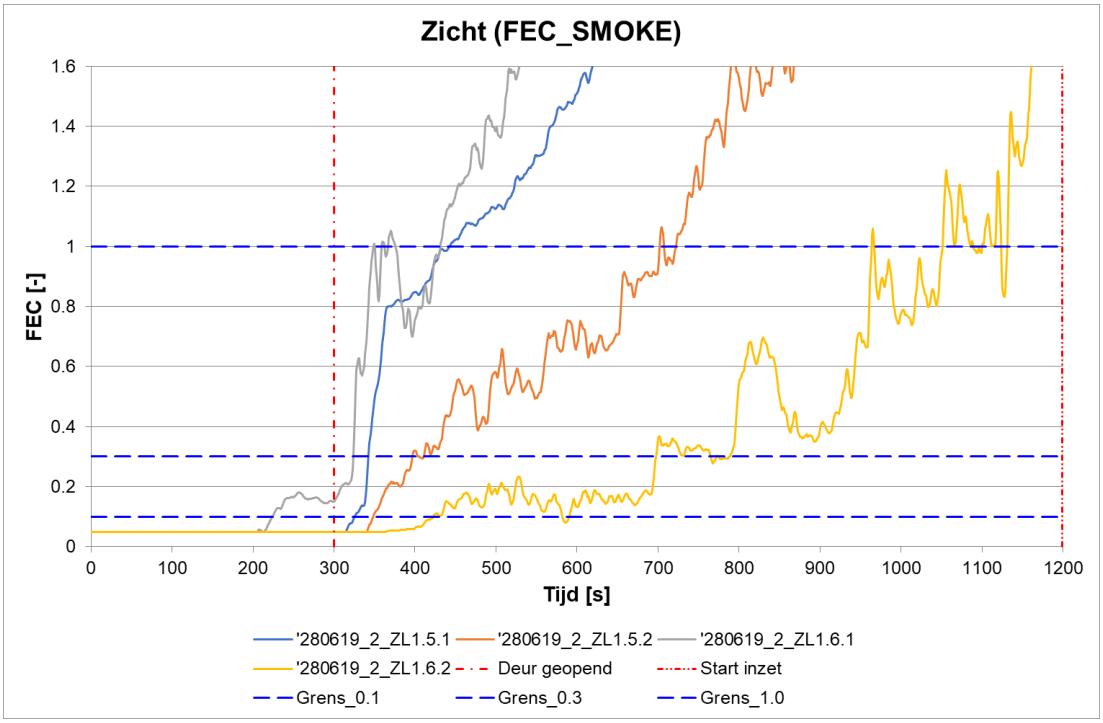
G6.1	Vulnerable	0.3/2.4/12.0	21.8	> 55.0	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-




Warmte (FED_HEAT)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet

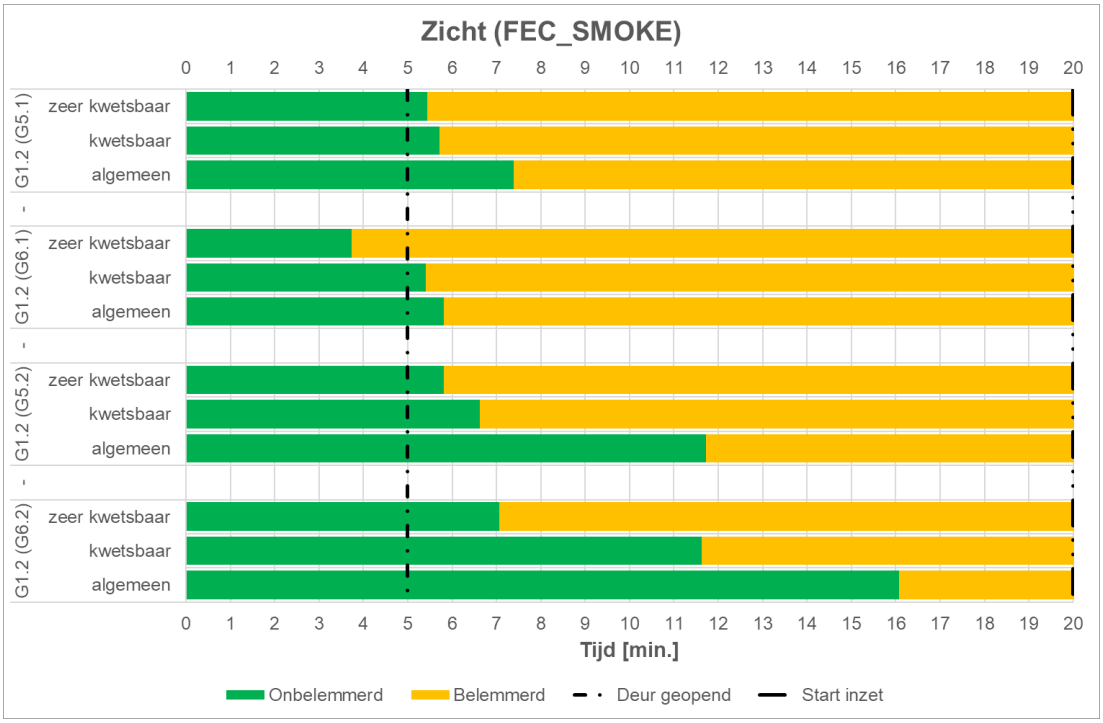

Warmte (FED_HEAT)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet

Visibility

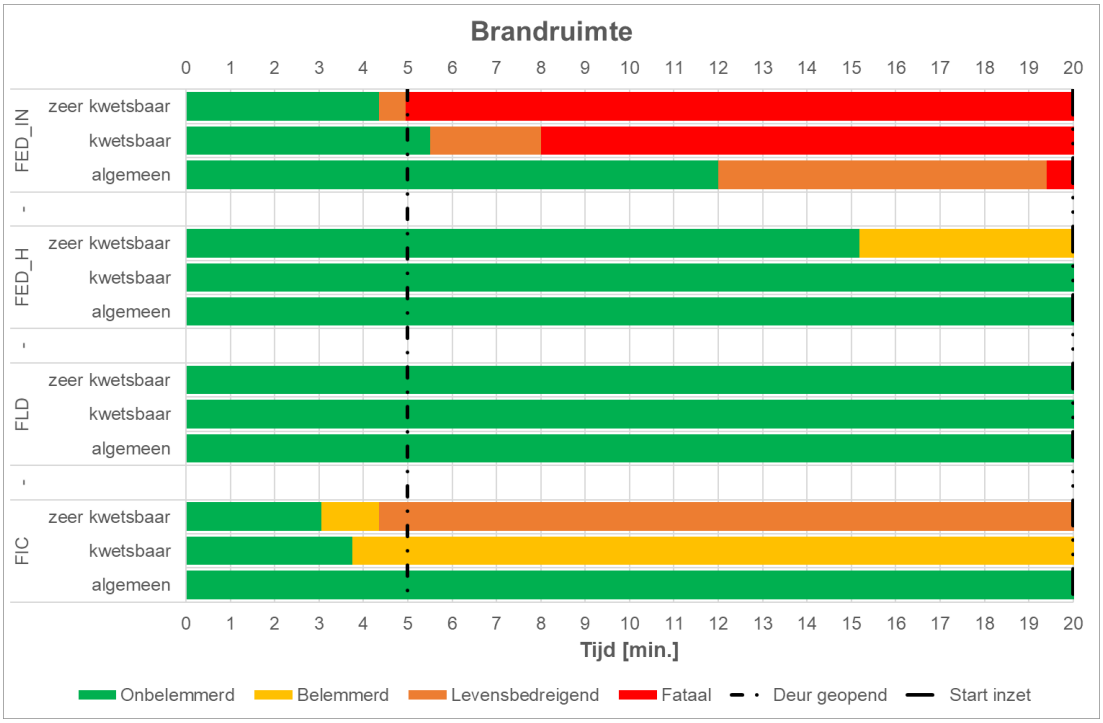


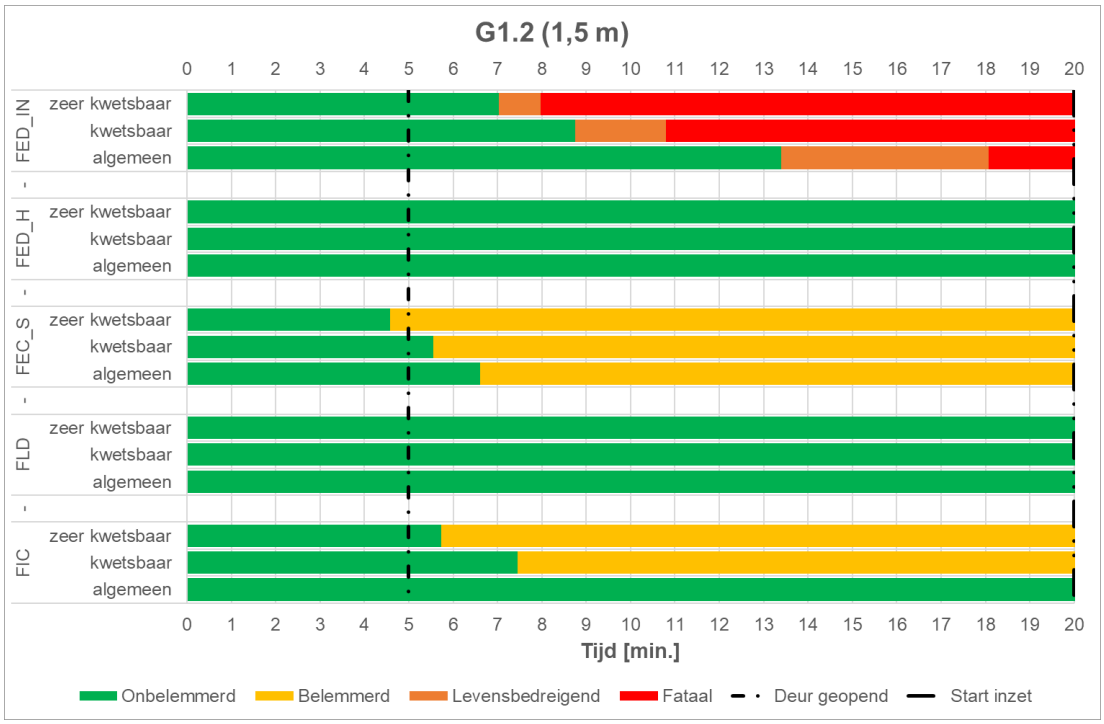
Visibility (FEC_SMOKE)				
	Group	Threshold [-]	Safe [min.]	Impaired [min.]
Corridor 1.2 G5.1	Highly vulnerable	0.1	5.4	> 5.4
	Vulnerable	0.3	5.7	> 5.7
	General	1.0	7.4	> 7.4
Corridor 1.2 G5.2	Highly vulnerable	0.1	5.8	> 5.8
	Vulnerable	0.3	6.6	> 6.6
	General	1.0	11.7	> 11.7
Corridor 1.2 G6.1	Highly vulnerable	0.1	3.7	> 3.7
	Vulnerable	0.3	5.4	> 5.4
	General	1.0	5.8	> 5.8

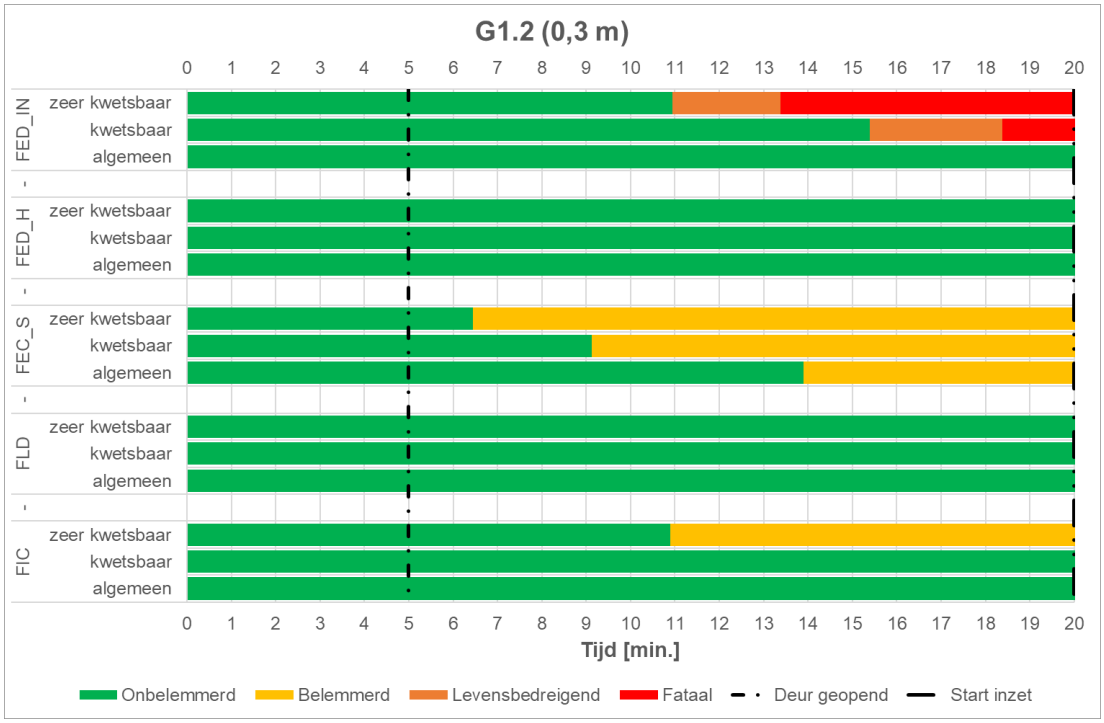
Corridor 1.2 G6.2	Highly vulnerable	0.1	7.1	> 7.1
	Vulnerable	0.3	11.6	> 11.6
	General	1.0	16.1	> 16.1



Overview

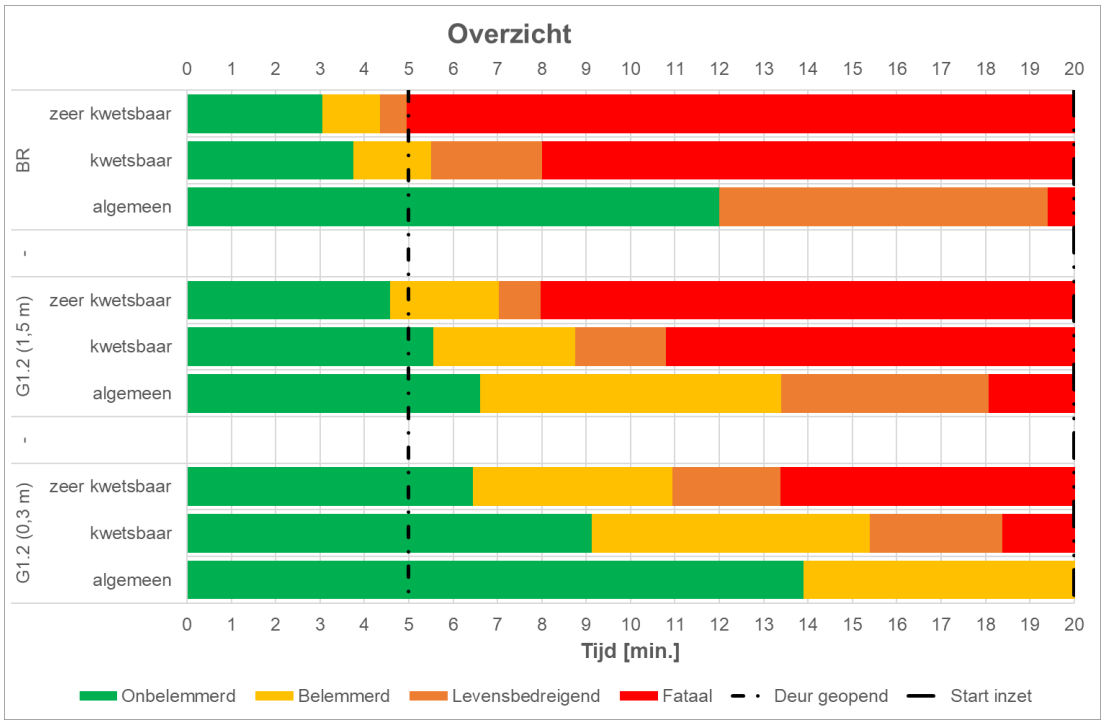


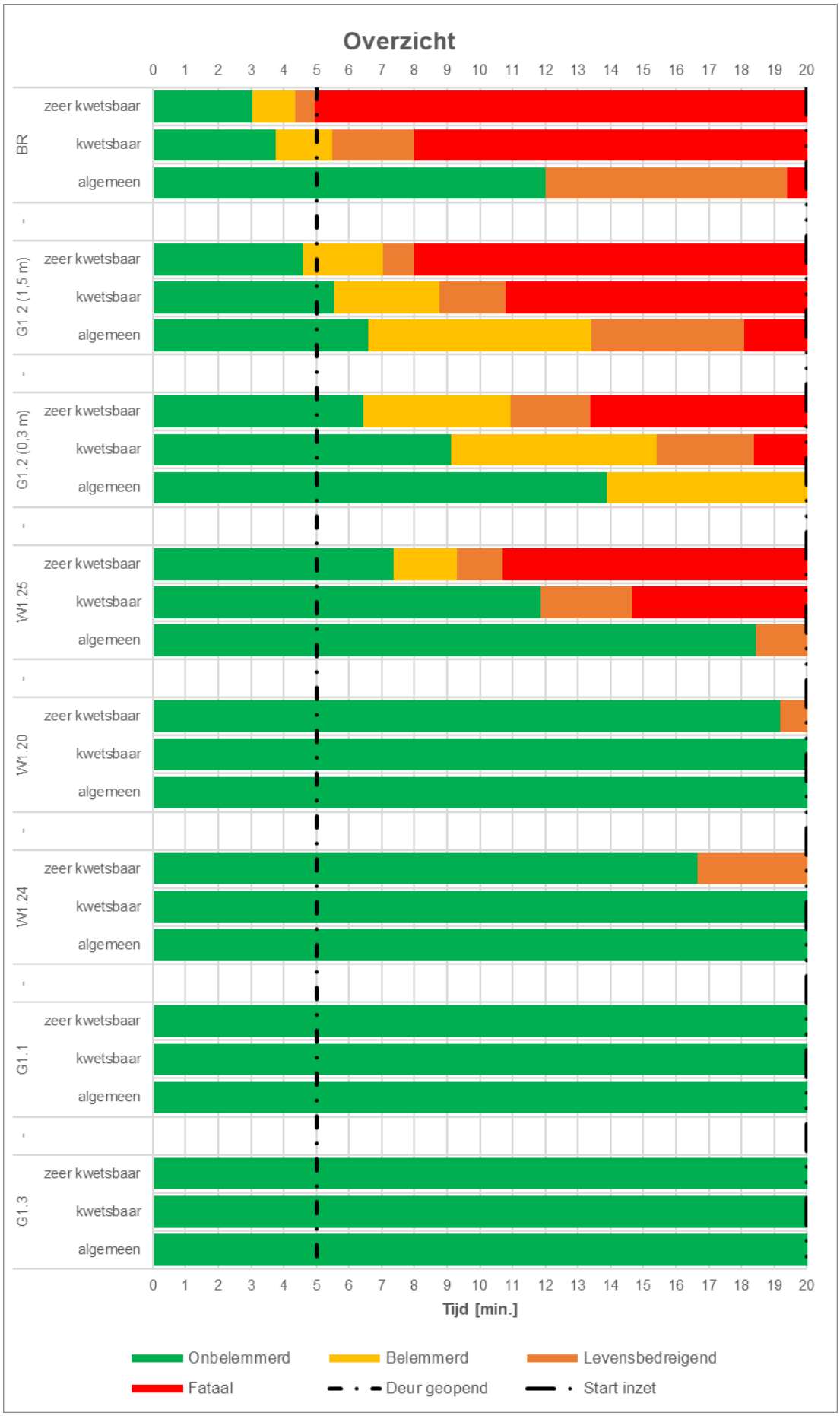

G1.2 (1,5 m)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
FED_IN
FED_H
FEC_S
FLD
FIC
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet


G1.2 (0,3 m)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
FED_IN
FED_H
FEC_S
FLD
FIC
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet

	Overview	Escape		Survivability	
	Group	Safe [min.]	Impaired [min.]	Life-threatening [min.]	Fatal [min.]
Fire room 1.19 G1	Highly vulnerable	3.1	4.4	5.0	> 5.0
	Vulnerable	3.8	5.5	8.0	> 8.0
	General	12.0	12.0	19.4	> 19.4
Residence 1.20 G2	Highly vulnerable	19.2	19.2	20.1	> 20.1
	Vulnerable	20.9	20.9	25.9	> 25.9
	General	26.9	26.9	29.9	> 29.9
Residence 1.24 G3	Highly vulnerable	16.7	16.7	20.3	> 20.3
	Vulnerable	21.8	21.8	24.8	> 24.8
	General	27.8	27.8	31.7	> 31.7
Residence 1.25 G4	Highly vulnerable	7.4	9.3	10.7	> 10.7
	Vulnerable	11.9	11.9	14.7	> 14.7
	General	18.5	18.5	21.4	> 21.4
Corridor 1.2 G5.1	Highly vulnerable	5.4	7.3	8.2	> 8.2
	Vulnerable	5.7	8.9	10.8	> 10.8
	General	7.4	12.9	16.8	> 16.8
Corridor 1.2 G5.2	Highly vulnerable	5.8	11.6	13.5	> 13.5
	Vulnerable	6.6	14.8	17.7	> 17.7
	General	11.7	20.4	24.4	> 24.4
Corridor 1.2	Highly vulnerable	3.7	6.8	7.8	> 7.8

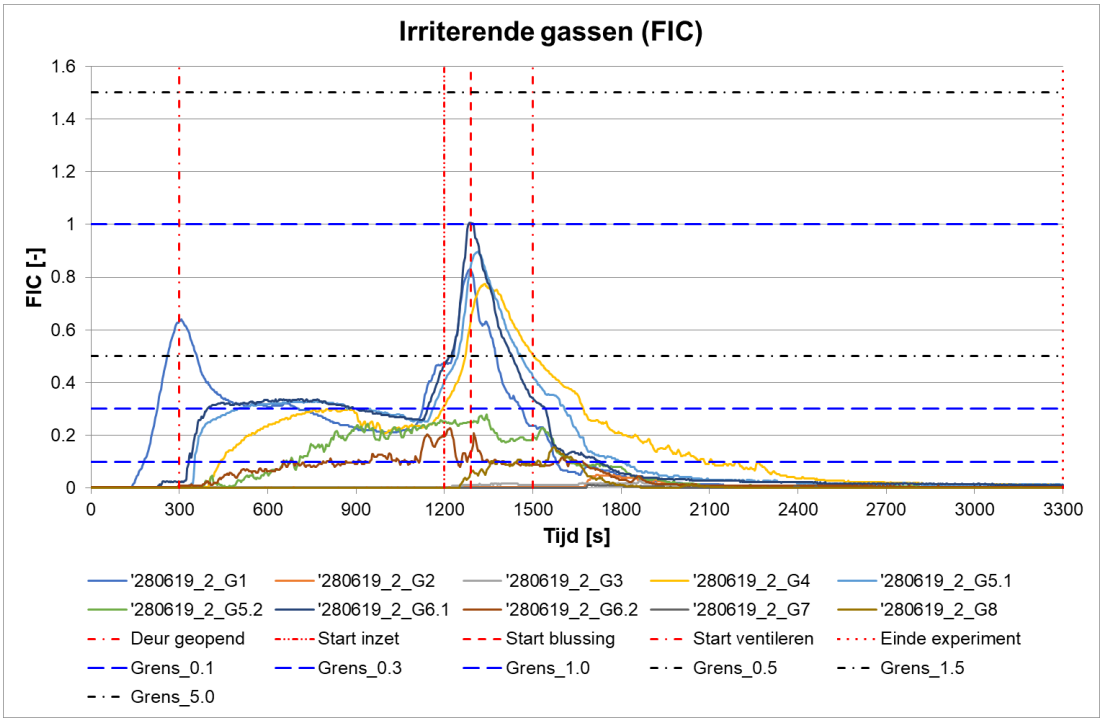
G6.1	Vulnerable	5.4	8.6	10.9	> 10.9
	General	5.8	14.0	19.4	> 19.4
Corridor 1.2 G6.2	Highly vulnerable	7.1	10.3	13.3	> 13.3
	Vulnerable	11.6	16.1	19.1	> 19.1
	General	16.1	20.3	25.9	> 25.9
Corridor 1.1 G7	Highly vulnerable	28.1	28.1	30.4	> 30.4
	Vulnerable	32.4	32.4	37.2	> 37.2
	General	41.9	41.9	52.1	> 52.1
Corridor 1.3 G8	Highly vulnerable	22.7	23.3	25.5	> 25.5
	Vulnerable	26.5	26.5	28.9	> 28.9
	General	34.1	34.1	41.3	> 41.3

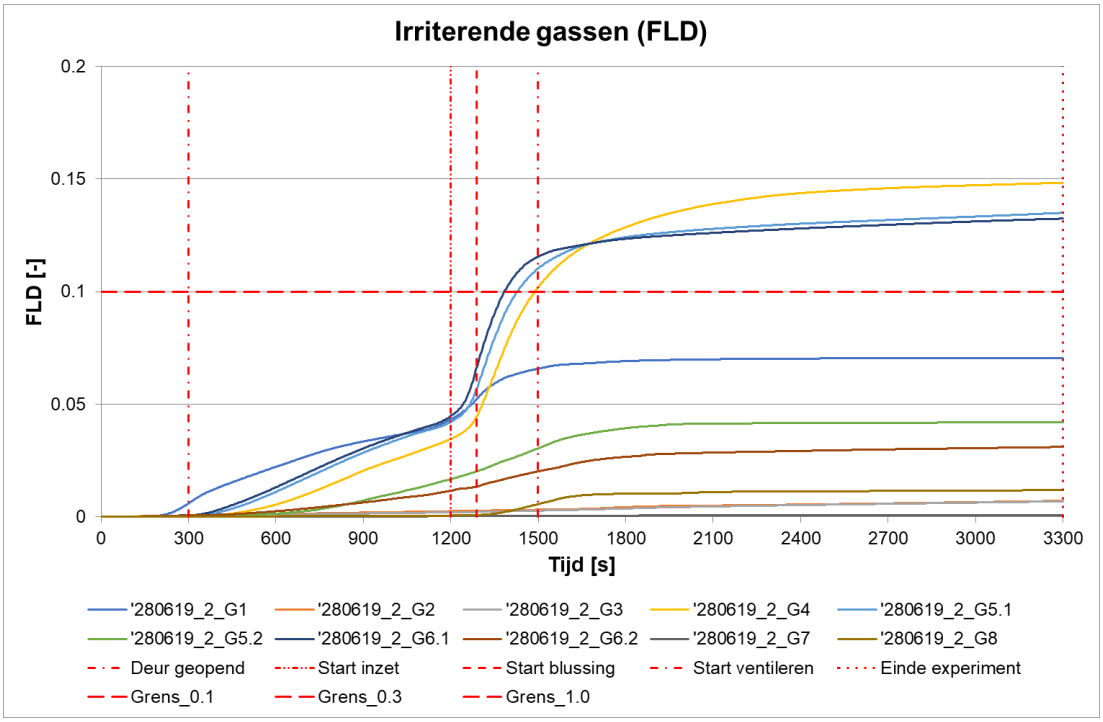



Overzicht
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (1,5 m)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (0,3 m)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet

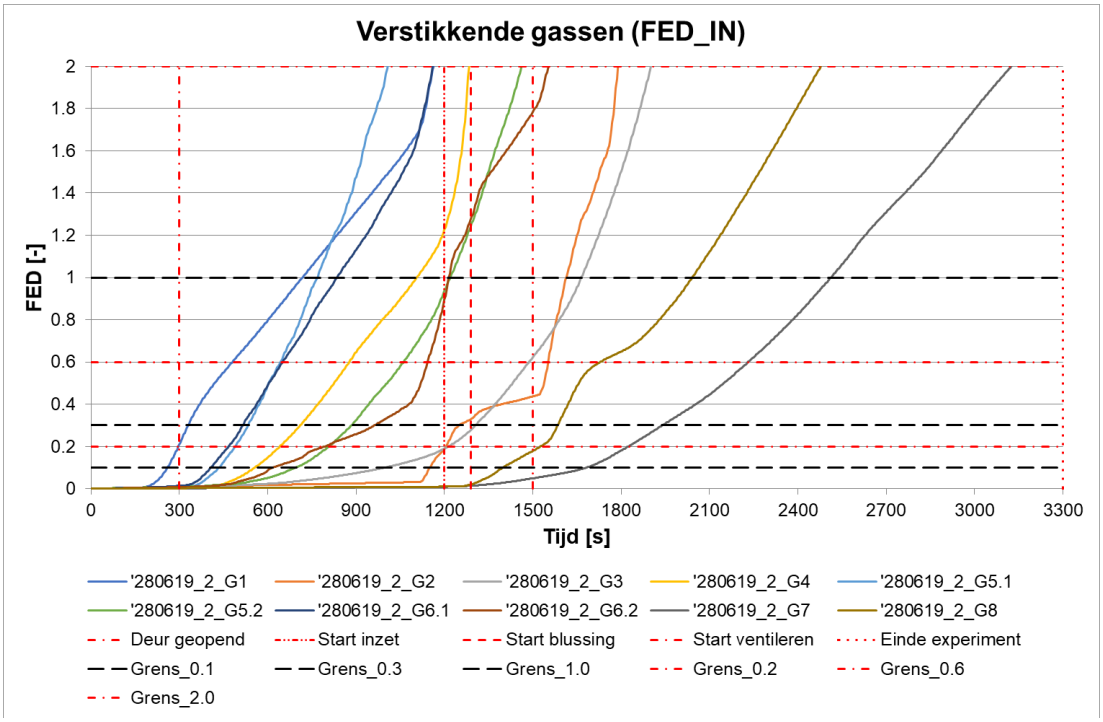
C. Deployment phase (20 - 55 minutes)

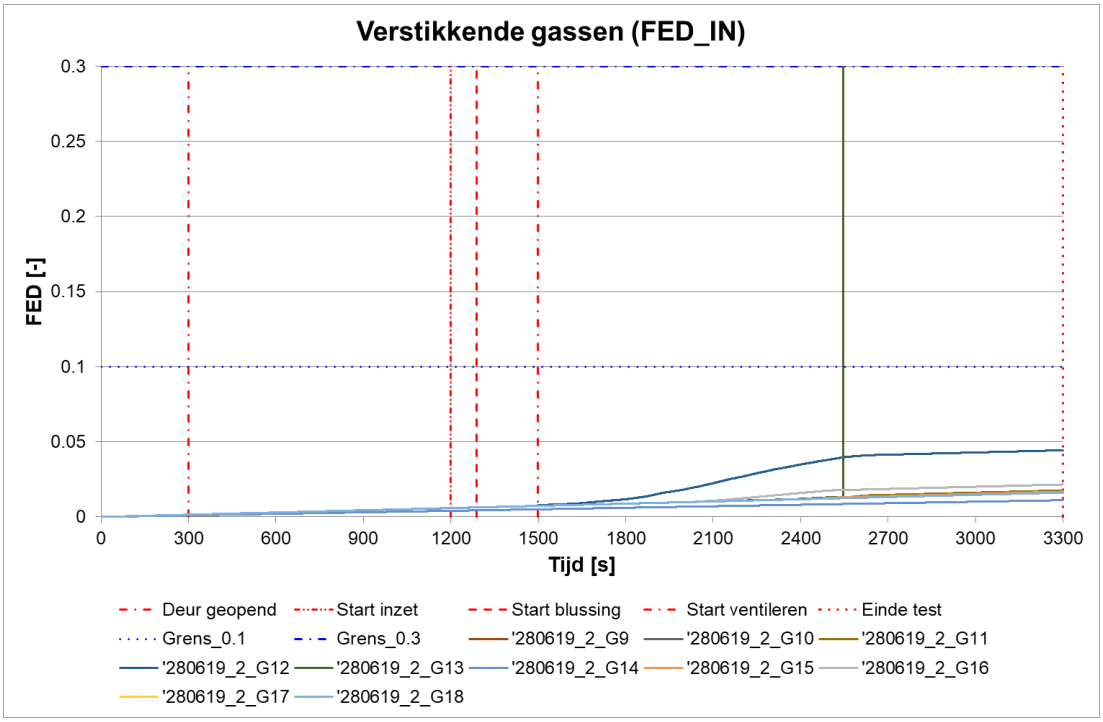
Irritant gases



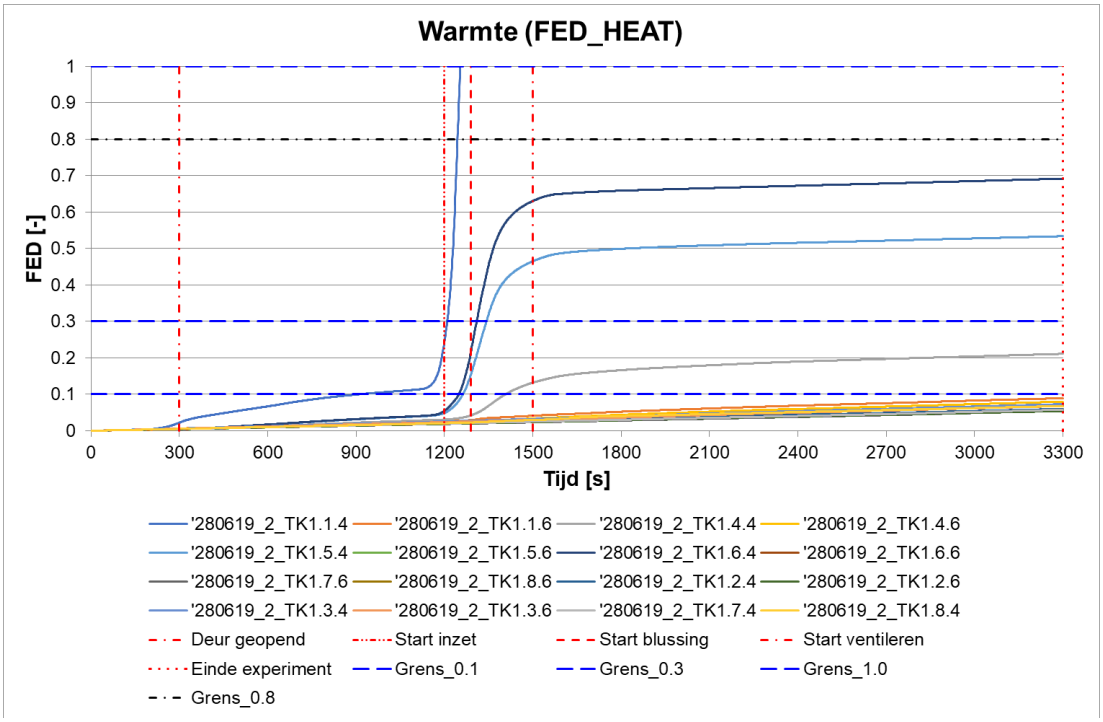


Asphyxiant gases

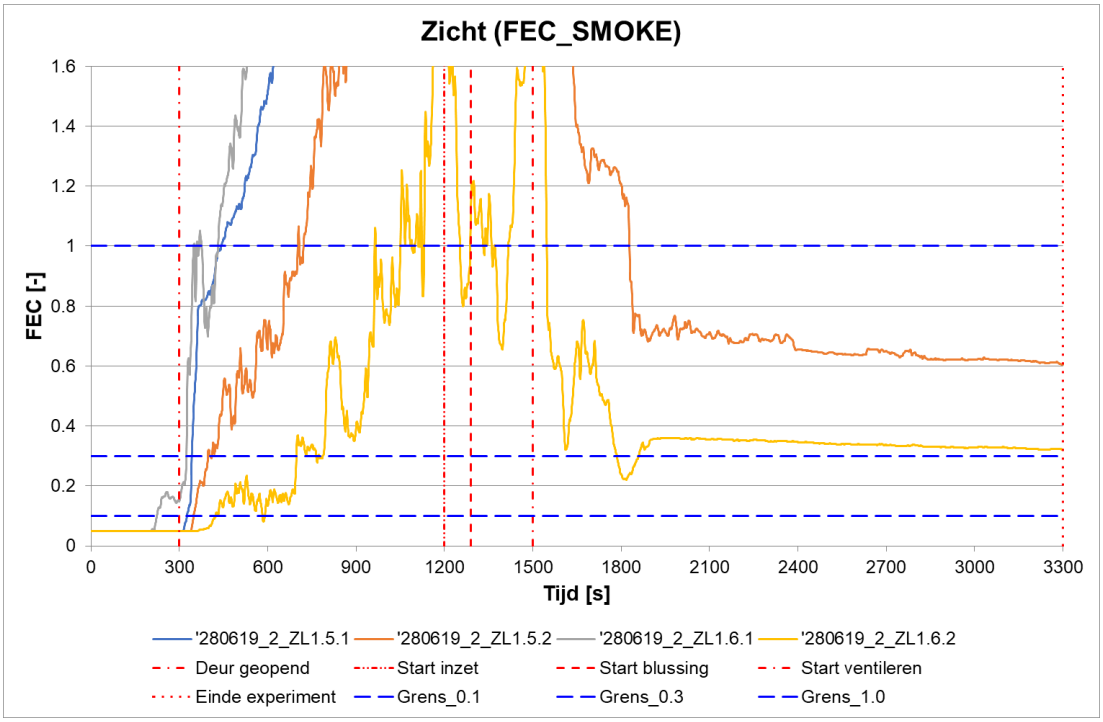




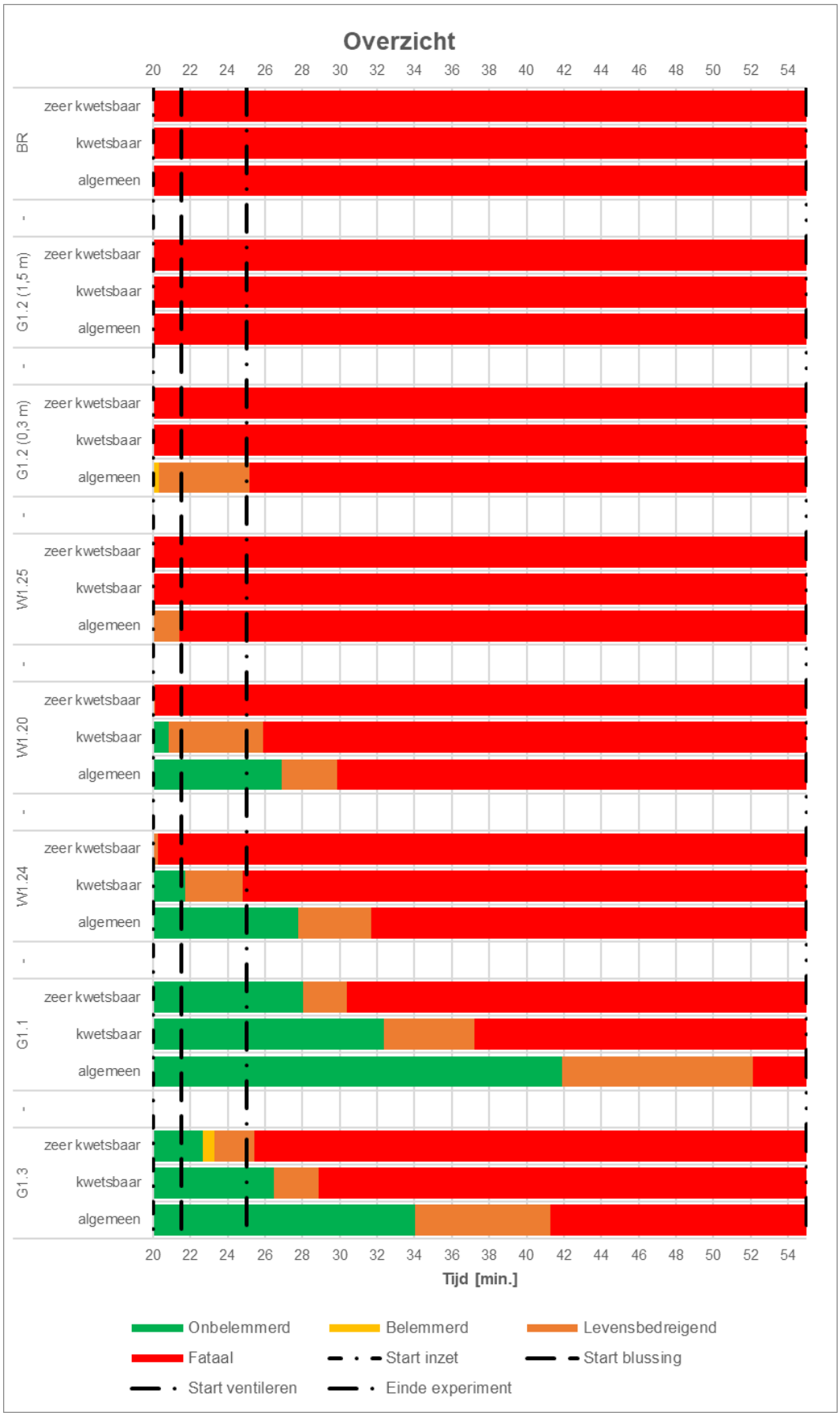
Heat



Visibility



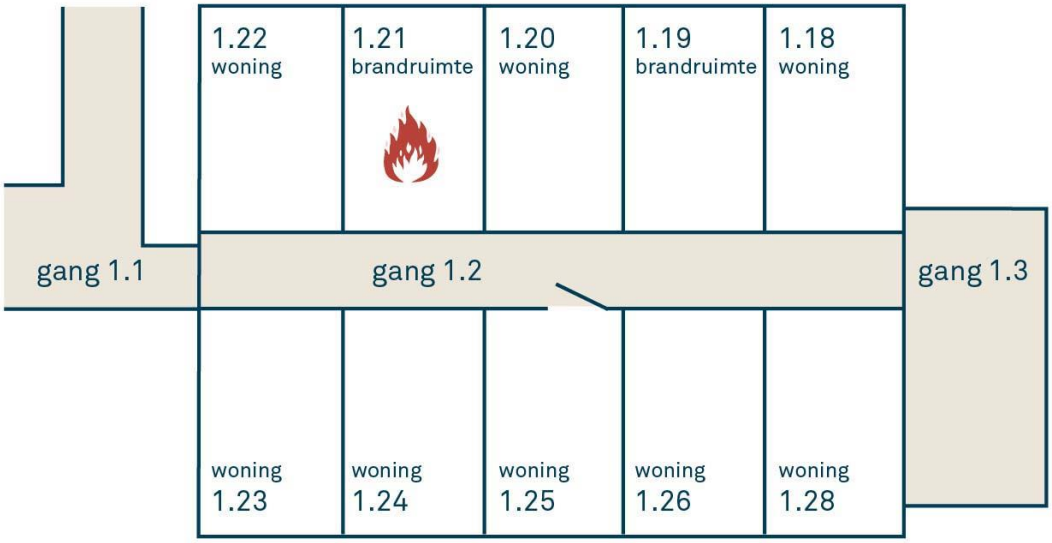
Overview


Overzicht
20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54
BR
G1.2 (1,5 m)
G1.2 (0,3 m)
W1.25
W1.20
W1.24
G1.1
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Start inzet
Start blussing
Start ventileren
Einde experiment

Test 10 (variant 4: mobile water mist, smoke resistant partition and door closed) 07/01/19

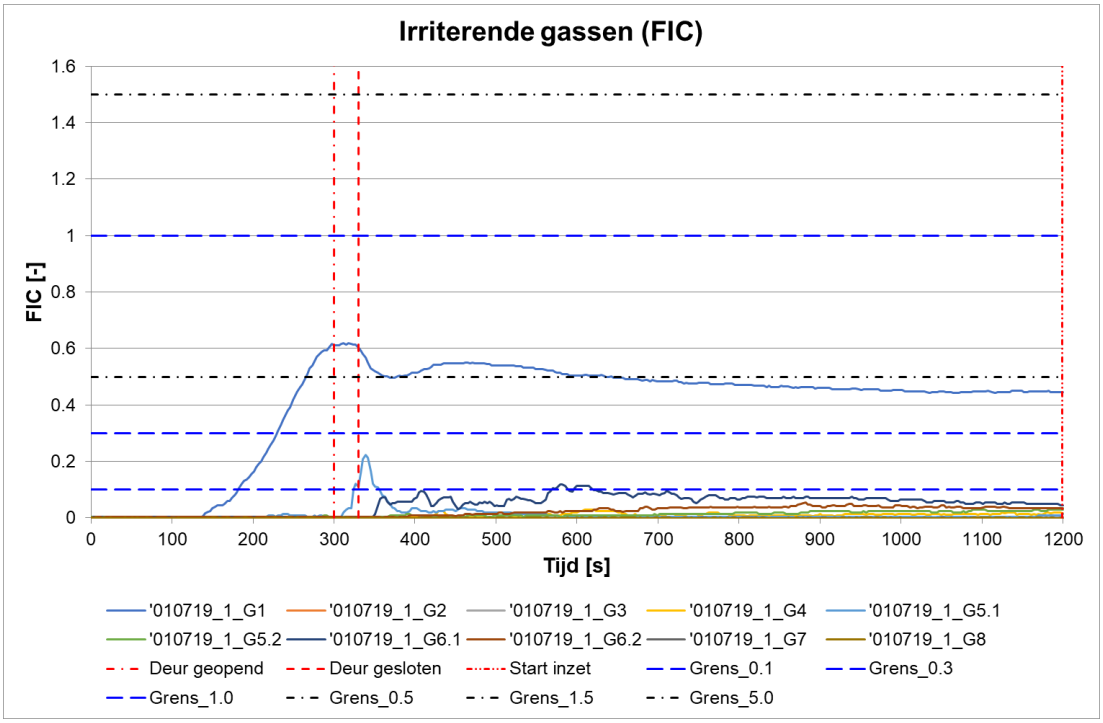
A. Description of the test

Test number	10
Date	01/07/2019
Morning / afternoon	Morning
Fire room	1.21
Door to the fire room open / closed	Closed
Fire service deployment	Offensive interior attack
Extra measures	Mobile water mist Smoke-resistant door S200
Specific aspects	Mobile water mist was activated 2 minutes and 1 second after the start of the test. The latch bolt on the smoke-resistant door to the fire room had not been applied when the door was opened after 5 minutes. Since the balcony door of the fire room jammed during the deployment, the corridor and fire room were ventilated after 39.5 minutes after the start of the test instead of after 38.5 minutes.



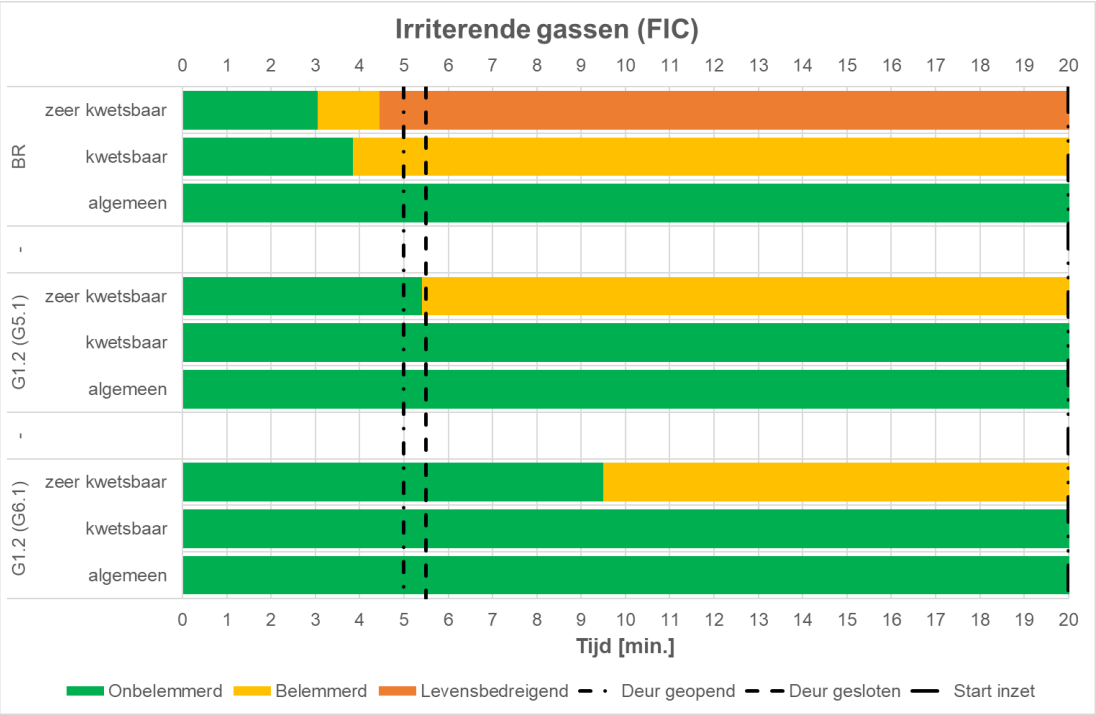
B. Escape phase (0 - 20 minutes)

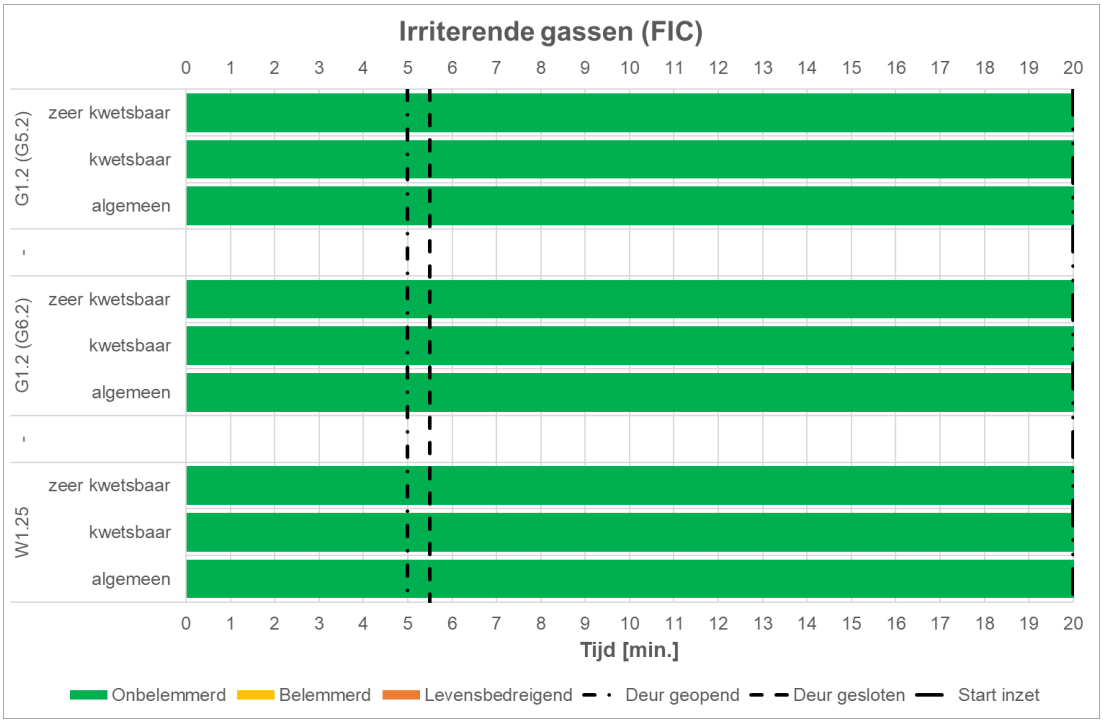
Irritant gases

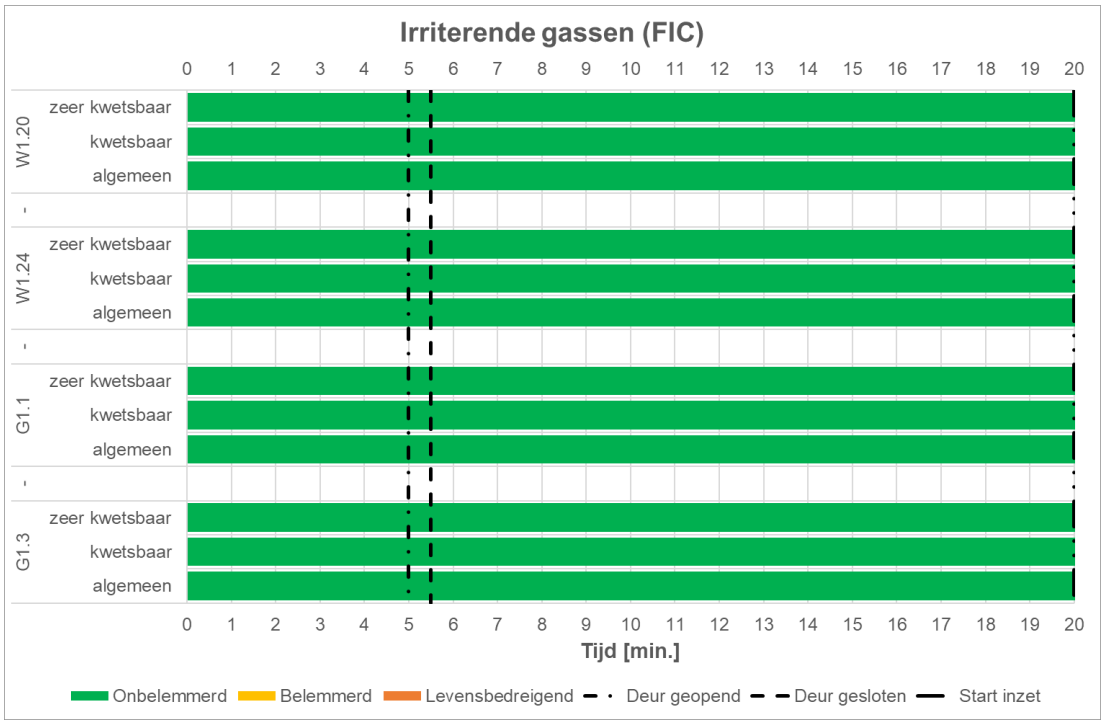


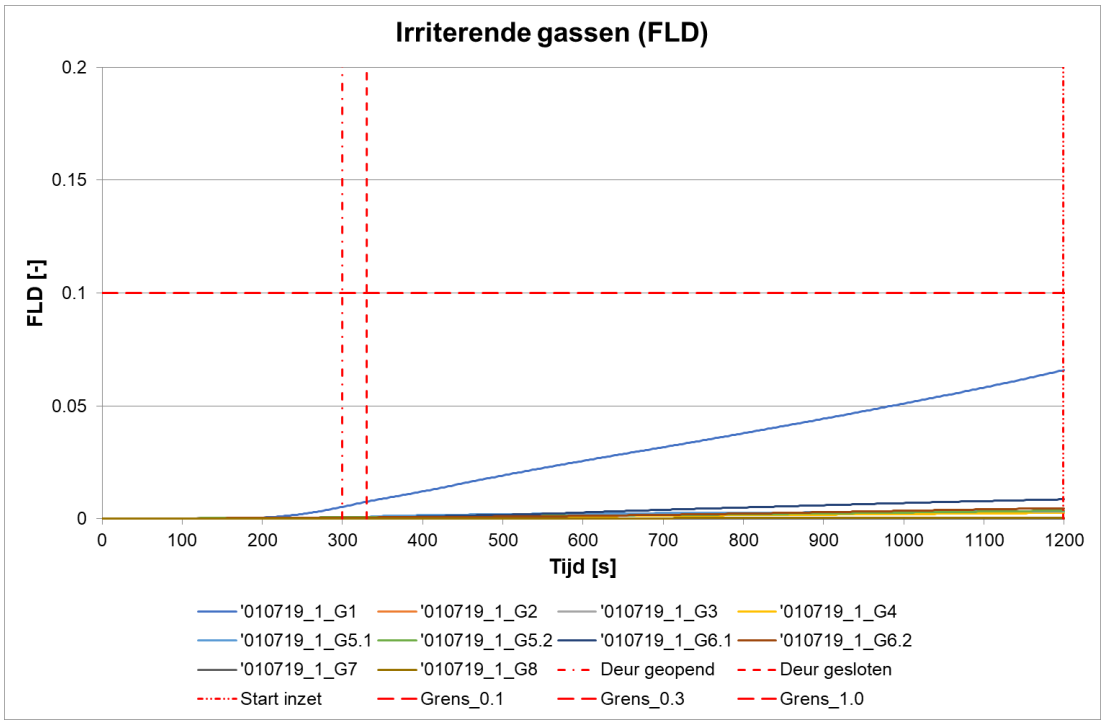
	Irritant gases (FIC)				
	Group	Threshold [-]	Safe [min.]	Impaired [min.]	Life-threatening [min.]
Fire room 1.21 G1	Highly vulnerable	0.1/0.5	3.1	4.5	> 4.5
	Vulnerable	0.3/1.5	3.9	> 55.0	-
	General	1.0/5.0	> 55.0	-	-
Residence 1.20 G2	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Residence 1.24 G3	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-

Residence 1.25 G4	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.5	5.4	> 55.0	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.5	9.5	> 55.0	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.5	55.0	55.0	
	Vulnerable	0.3/1.5	55.0	55.0	
	General	1.0/5.0	55.0	55.0	


Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G5.1)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.1)
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Deur gesloten
Start inzet

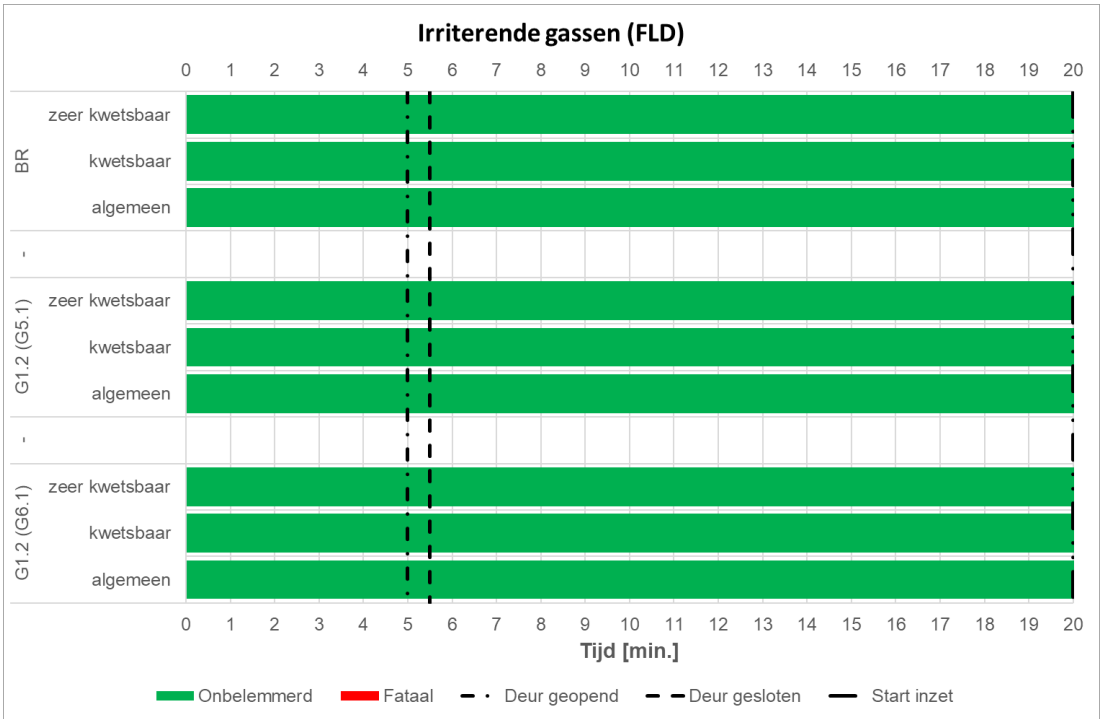

Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Deur gesloten
Start inzet


Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Deur gesloten
Start inzet

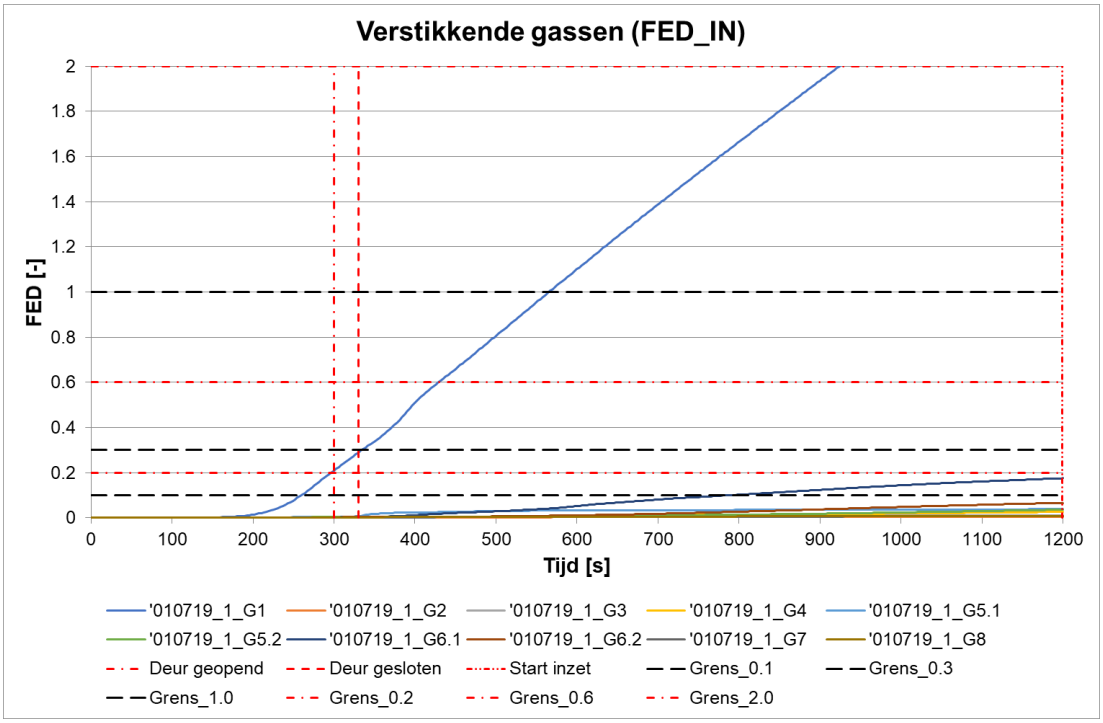

Irriterende gassen (FLD)
0.2
0.15
0.1
0.05
0
FLD [-]
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
Tijd [s]
'010719_1_G1
'010719_1_G2
'010719_1_G3
'010719_1_G4
'010719_1_G5.1
'010719_1_G5.2
'010719_1_G6.1
'010719_1_G6.2
'010719_1_G7
'010719_1_G8
Deur geopend
Deur gesloten
Start inzet
Grens_0.1
Grens_0.3
Grens_1.0

Irritant gases (FLD)				
	Group	Threshold [-]	Safe [min.]	Impaired [min.]
Fire room 1.21 G1	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.20 G2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.24 G3	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.25 G4	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G5.1	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G5.2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G6.1	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-

	General	1.0	> 55.0	-
Corridor 1.2 G6.2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.1 G7	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.3 G8	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-

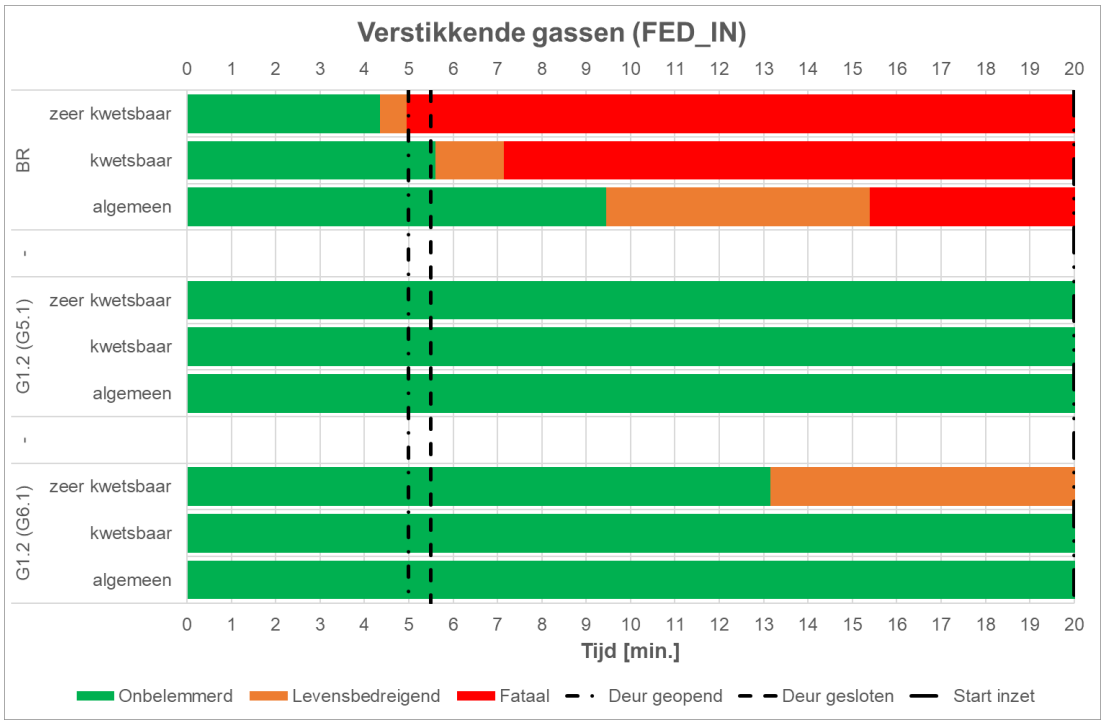


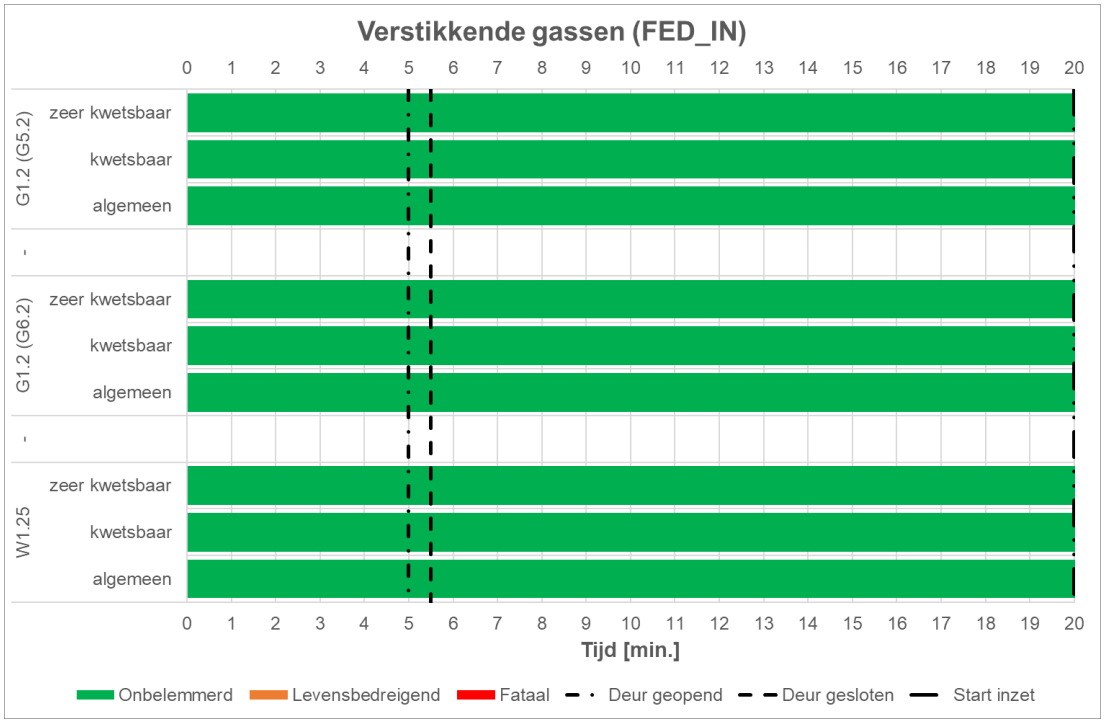
Asphyxiant gases

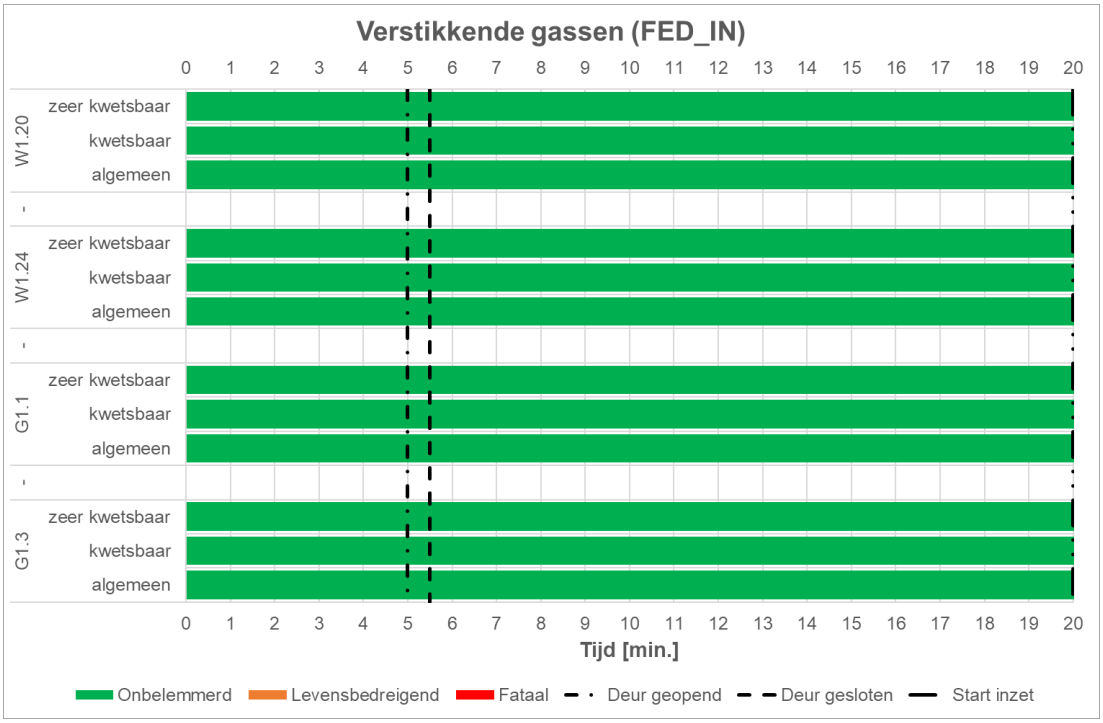


		Asphyxiant gases (FED_IN)			
	Group	Threshold [-]	Safe [min.]	Life-threatening [min.]	Fatal [min.]
Fire room 1.21 G1	Highly vulnerable	0.1/0.2	4.4	5.0	> 5.0
	Vulnerable	0.3/0.6	5.6	7.2	> 7.2
	General	1.0/2.0	9.5	15.4	> 15.4
Residence 1.20 G2	Highly vulnerable	0.1/0.2	> 55.0	-	-
	Vulnerable	0.3/0.6	> 55.0	-	-
	General	1.0/2.0	> 55.0	-	-
Residence 1.24 G3	Highly vulnerable	0.1/0.2	> 55.0	-	-
	Vulnerable	0.3/0.6	> 55.0	-	-
	General	1.0/2.0	> 55.0	-	-
Residence 1.25	Highly vulnerable	0.1/0.2	29.2	54.8	> 54.8

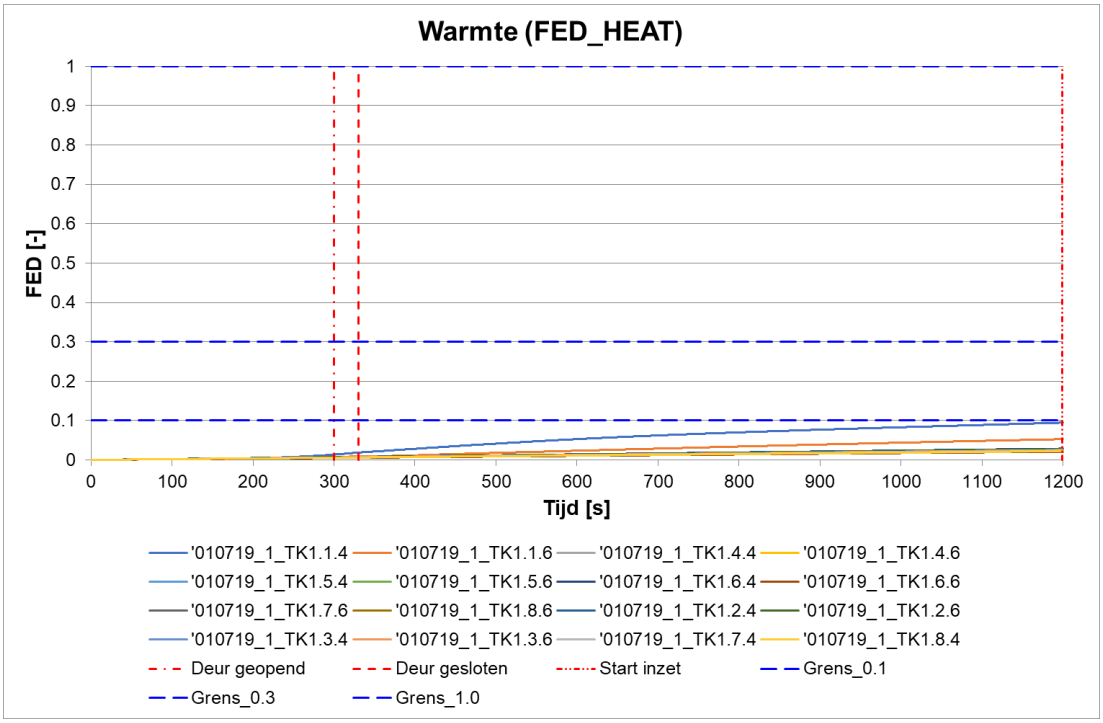
G4	Vulnerable	0.3/0.6	> 55.0	-	-
	General	1.0/2.0	> 55.0	-	-
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.2	23.5	26.4	> 26.4
	Vulnerable	0.3/0.6	> 55.0	-	-
	General	1.0/2.0	> 55.0	-	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.2	> 55.0	-	-
	Vulnerable	0.3/0.6	> 55.0	-	-
	General	1.0/2.0	> 55.0	-	-
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.2	13.2	23.9	> 23.9
	Vulnerable	0.3/0.6	26.3	> 55.0	-
	General	1.0/2.0	> 55.0	-	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.2	25.8	> 55.0	-
	Vulnerable	0.3/0.6	> 55.0	-	-
	General	1.0/2.0	> 55.0	-	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.2	> 55.0	-	-
	Vulnerable	0.3/0.6	> 55.0	-	-
	General	1.0/2.0	> 55.0	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.2	> 55.0	-	-
	Vulnerable	0.3/0.6	> 55.0	-	-
	General	1.0/2.0	> 55.0	-	-


Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G5.1)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.1)
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet


Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

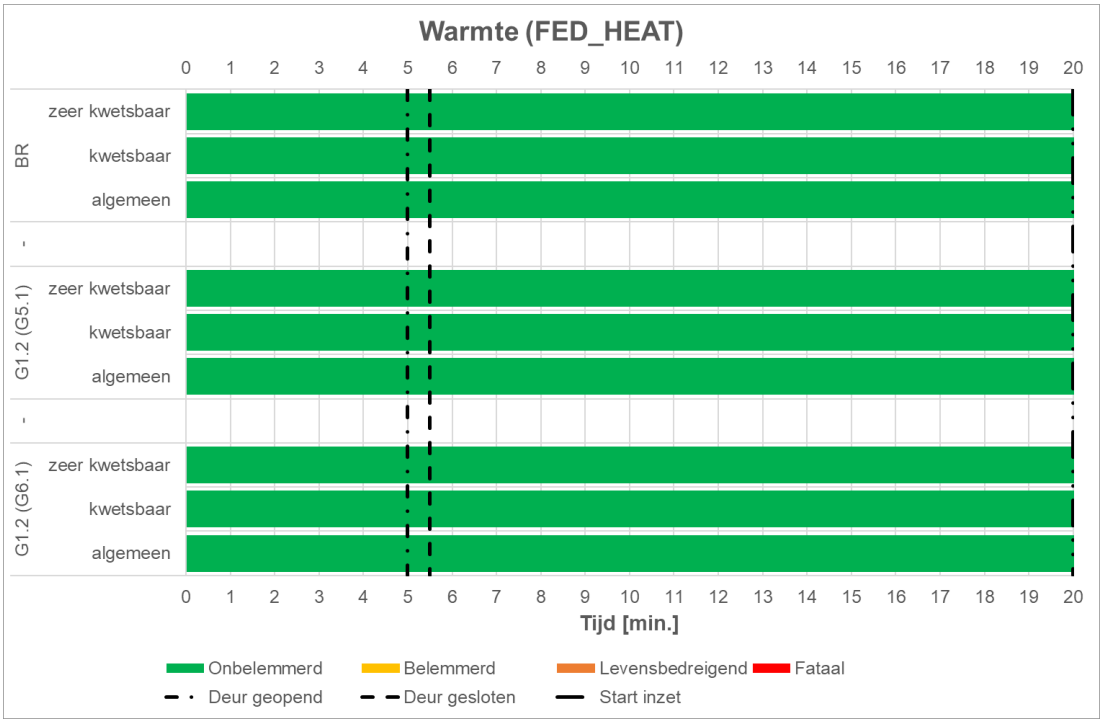

Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

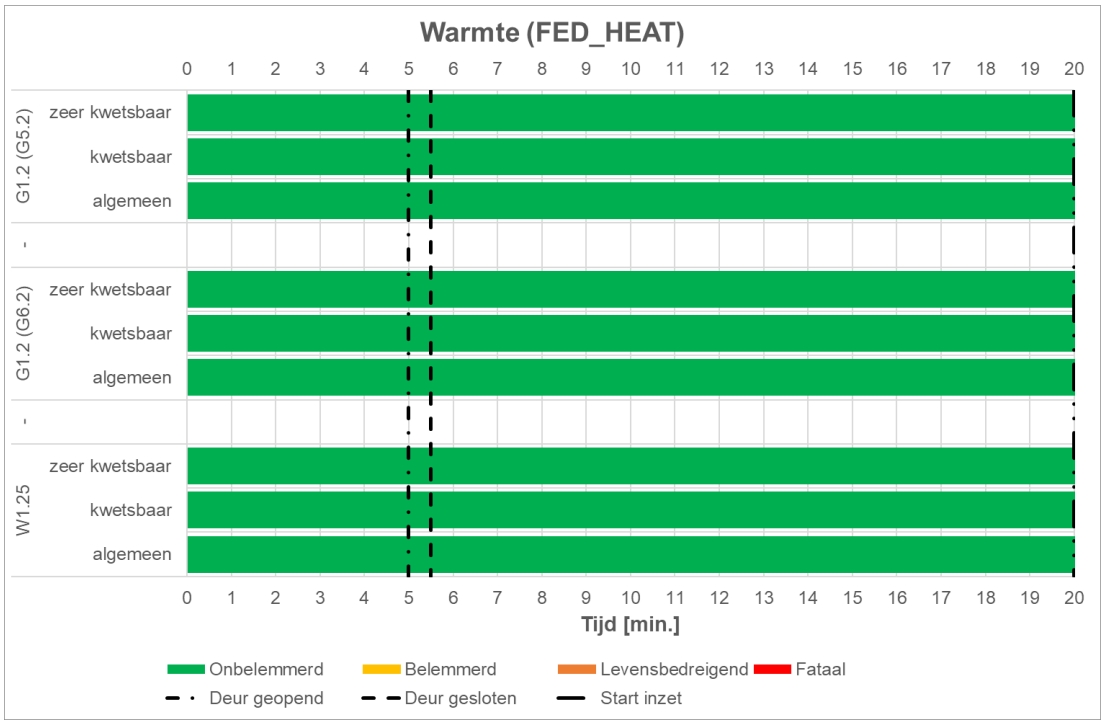
Heat

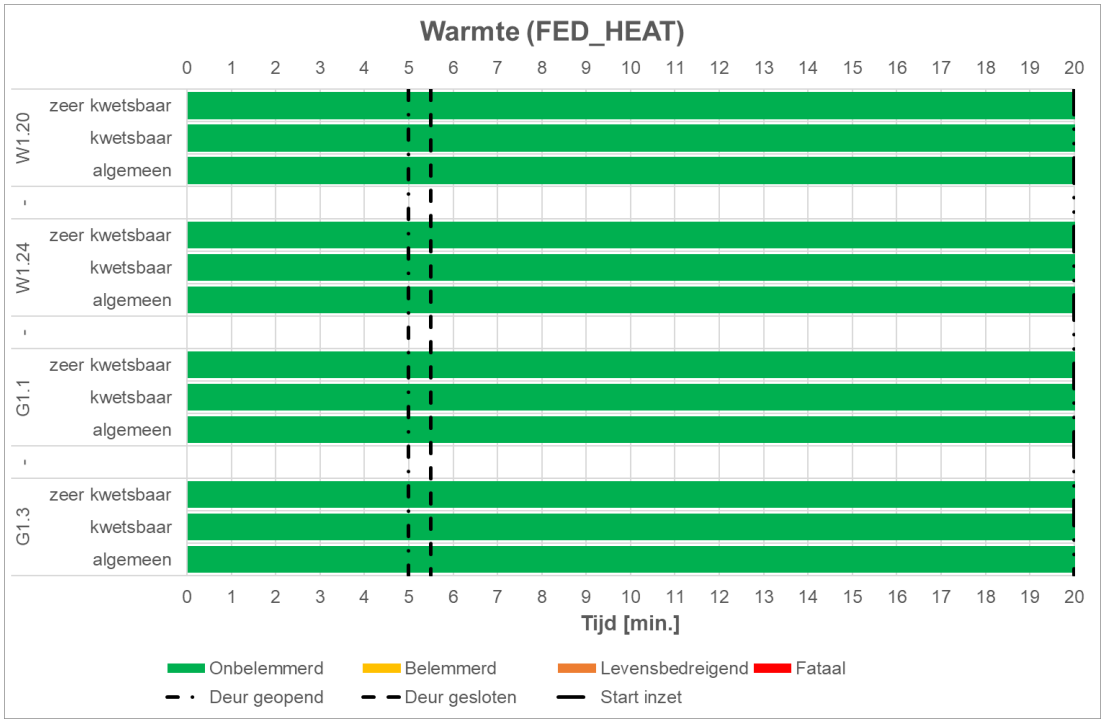

Warmte (FED_HEAT)
FED [-]
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
Tijd [s]
'010719_1_TK1.1.4
'010719_1_TK1.1.6
'010719_1_TK1.4.4
'010719_1_TK1.4.6
'010719_1_TK1.5.4
'010719_1_TK1.5.6
'010719_1_TK1.6.4
'010719_1_TK1.6.6
'010719_1_TK1.7.6
'010719_1_TK1.8.6
'010719_1_TK1.2.4
'010719_1_TK1.2.6
'010719_1_TK1.3.4
'010719_1_TK1.3.6
'010719_1_TK1.7.4
'010719_1_TK1.8.4
Deur geopend
Deur gesloten
Start inzet
Grens_0.1
Grens_0.3
Grens_1.0

Heat (FED_HEAT)						
	Group	Threshold [-]	Safe [min.]	Impaired [min.]	Life-threatening [min.]	Fatal [min.
Fire room 1.21 G1	Highly vulnerable	0.1/0.8/1.2	21.6	> 55.0	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Residence 1.20 G2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Residence 1.24 G3	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Residence 1.25 G4	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-

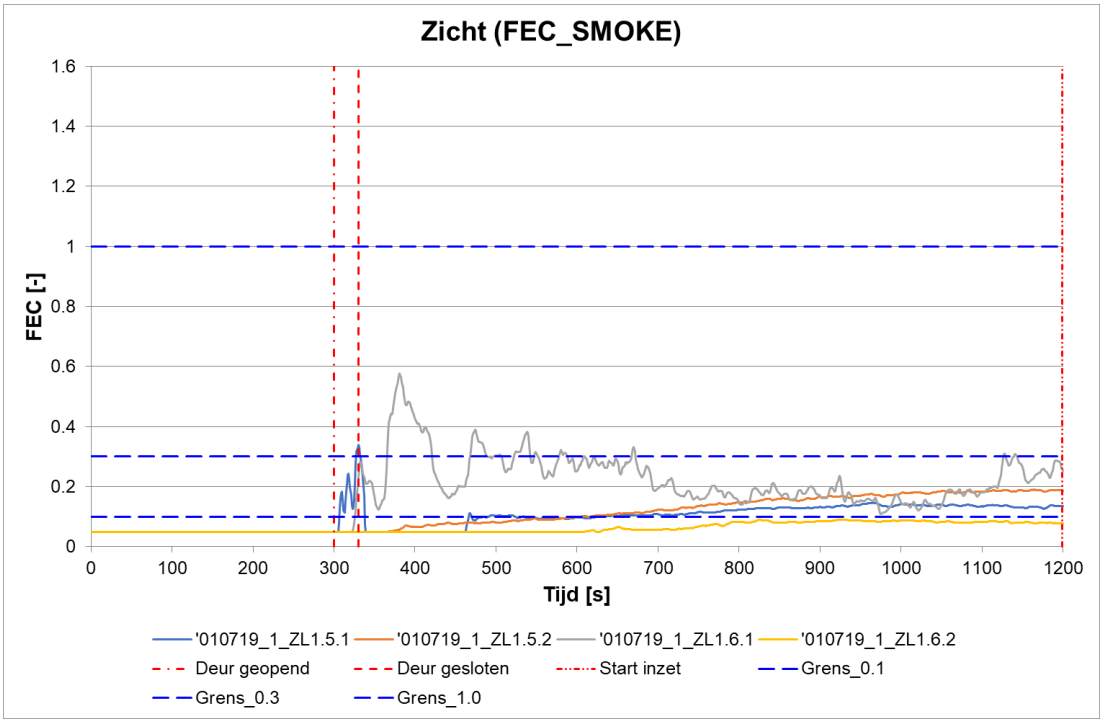
G6.1	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-




Warmte (FED_HEAT)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

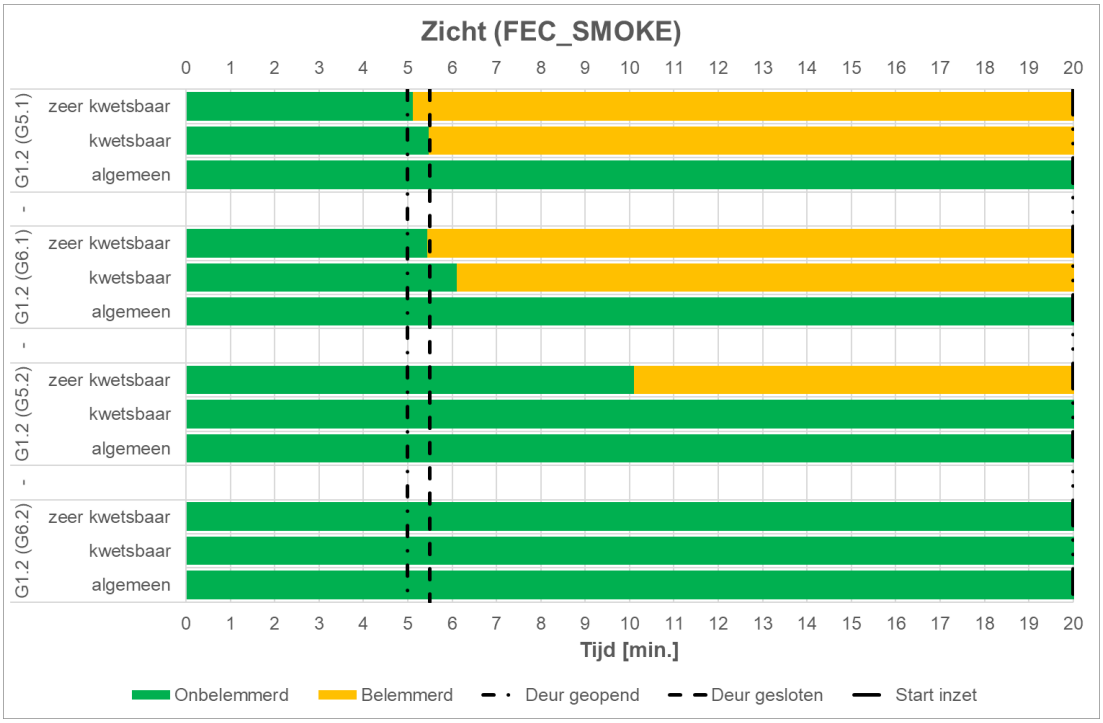

Warmte (FED_HEAT)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

Visibility

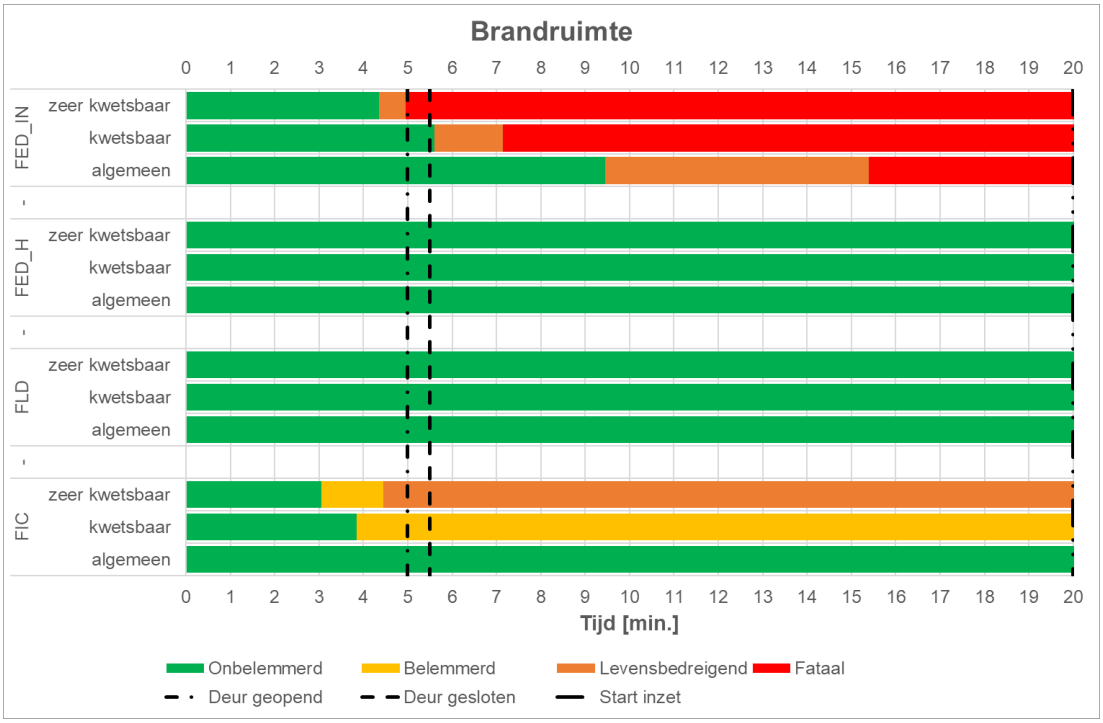


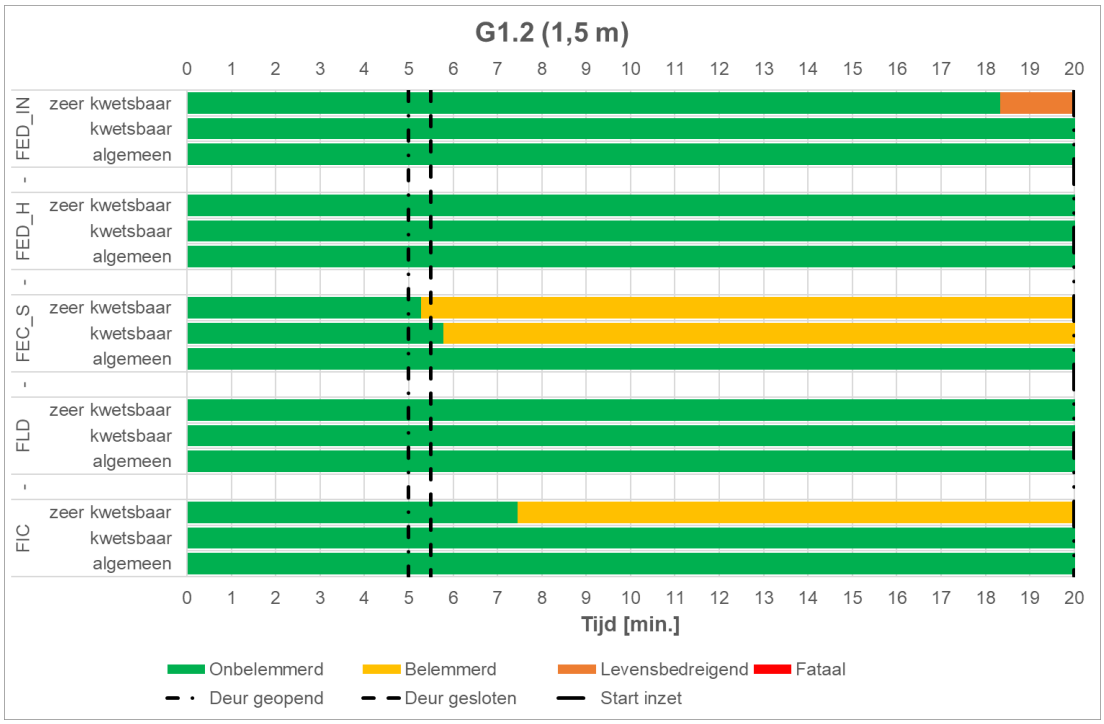
Visibility (FEC_SMOKE)				
	Group	Threshold [-]	Safe [min.]	Impaired [min.]
Corridor 1.2 G5.1	Highly vulnerable	0.1	5.1	> 5.1
	Vulnerable	0.3	5.5	> 5.5
	General	1.0	> 55.0	-
Corridor 1.2 G5.2	Highly vulnerable	0.1	10.1	> 10.1
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G6.1	Highly vulnerable	0.1	5.4	> 5.4
	Vulnerable	0.3	6.1	> 6.1
	General	1.0	> 55.0	-

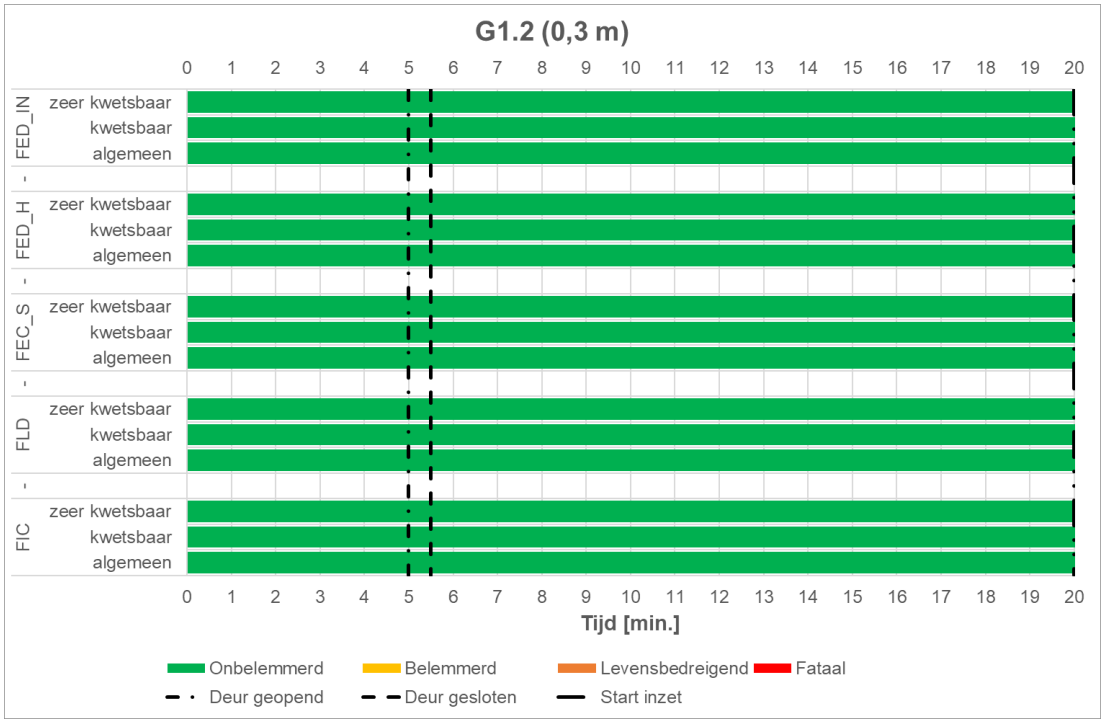
Corridor 1.2 G6.2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-



Overview

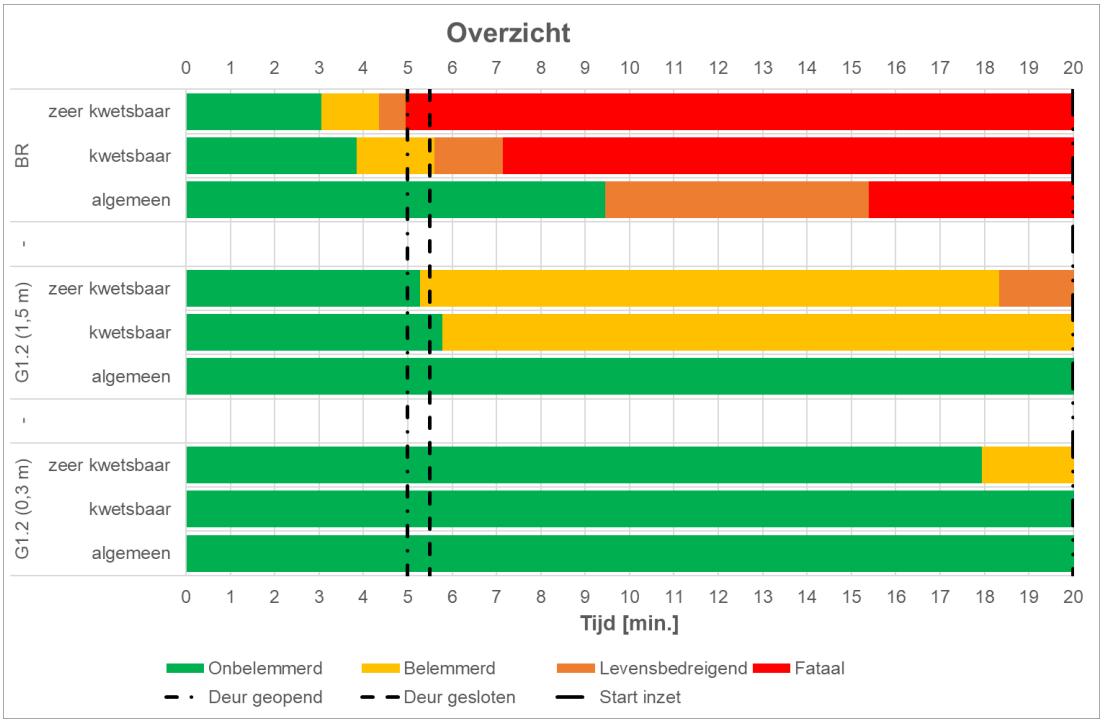


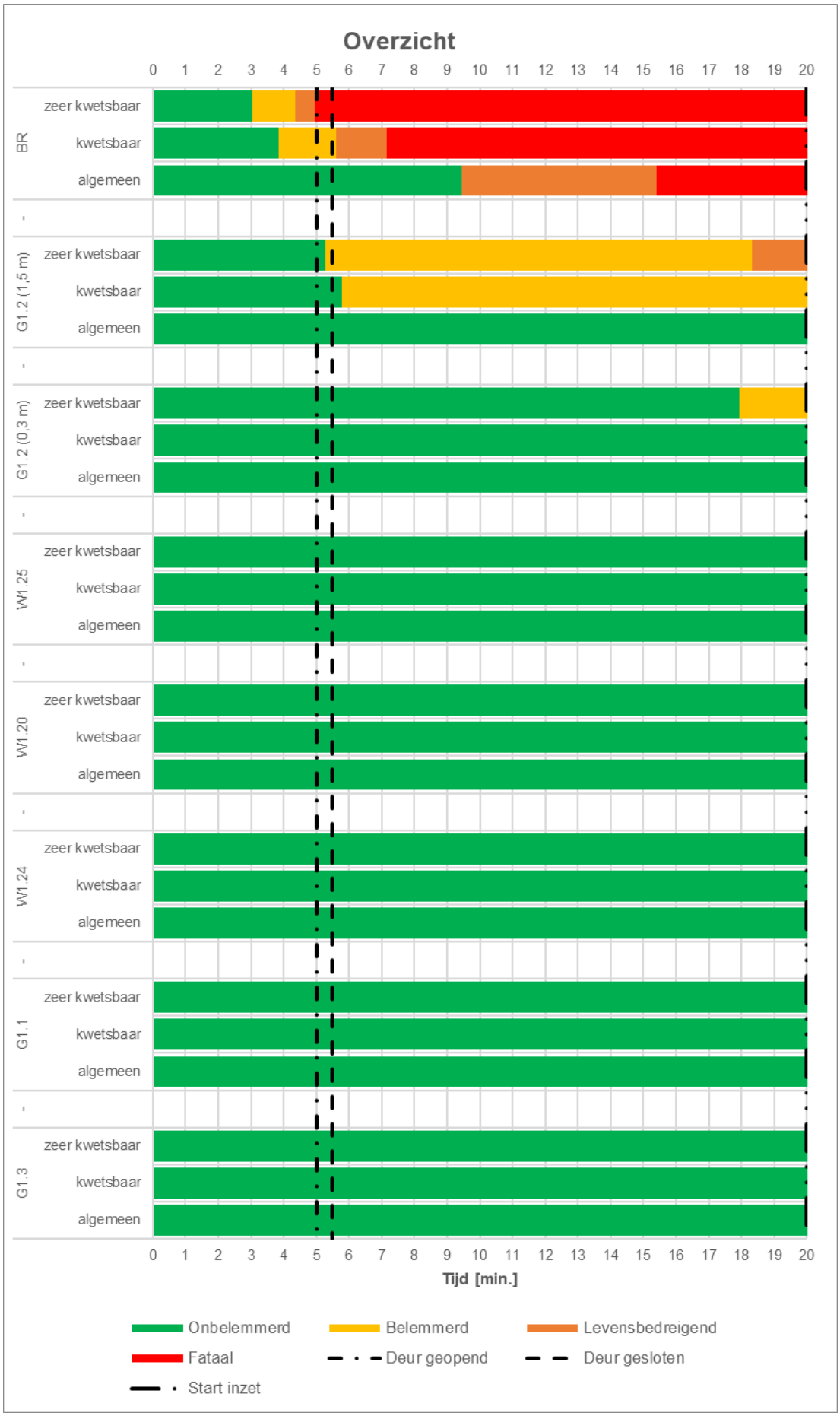

G1.2 (1,5 m)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
FED_IN
FED_H
FEC_S
FLD
FIC
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet


G1.2 (0,3 m)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
FED_IN
FED_H
FEC_S
FLD
FIC
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

	Overview	Escape		Survivability	
	Group	Safe [min.]	Impaired [min.]	Life-threatening [min.]	Fatal [min.]
Fire room 1.21 G1	Highly vulnerable	3.1	4.4	5.0	> 5.0
	Vulnerable	3.9	5.6	7.2	> 7.2
	General	9.5	9.5	15.4	> 15.4
Residence 1.20 G2	Highly vulnerable	> 55.0	-	-	-
	Vulnerable	> 55.0	-	-	-
	General	> 55.0	-	-	-
Residence 1.24 G3	Highly vulnerable	> 55.0	-	-	-
	Vulnerable	> 55.0	-	-	-
	General	> 55.0	-	-	-
Residence 1.25 G4	Highly vulnerable	29.2	29.2	54.8	> 54.8
	Vulnerable	> 55.0	-	-	-
	General	> 55.0	-	-	-
Corridor 1.2 G5.1	Highly vulnerable	5.1	23.5	26.4	> 26.4
	Vulnerable	5.5	> 55.0	-	-
	General	> 55.0	-	-	-
Corridor 1.2 G5.2	Highly vulnerable	10.1	> 55.0	-	-
	Vulnerable	> 55.0	-	-	-
	General	> 55.0	-	-	-
Corridor 1.2	Highly vulnerable	5.4	13.2	23.9	> 23.9

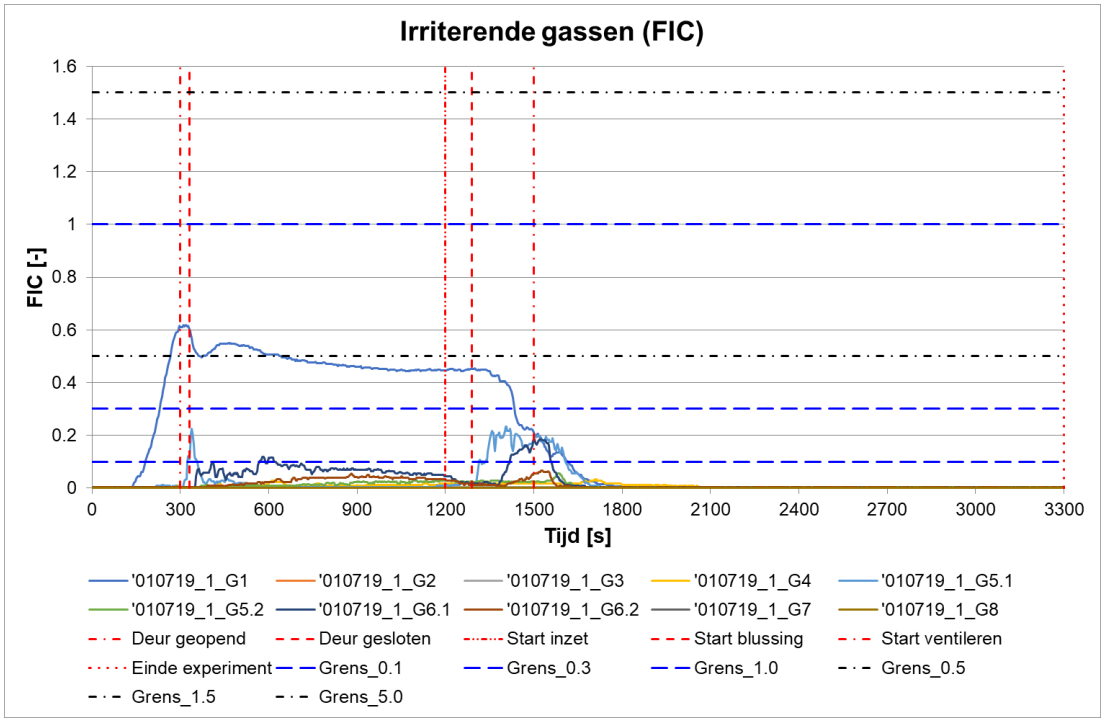
G6.1	Vulnerable	6.1	26.3	> 55.0	-
	General	> 55.0	-	-	-
Corridor 1.2 G6.2	Highly vulnerable	25.8	25.8	> 55.0	-
	Vulnerable	> 55.0	-	-	-
	General	> 55.0	-	-	-
Corridor 1.1 G7	Highly vulnerable	> 55.0	-	-	-
	Vulnerable	> 55.0	-	-	-
	General	> 55.0	-	-	-
Corridor 1.3 G8	Highly vulnerable	> 55.0	-	-	-
	Vulnerable	> 55.0	-	-	-
	General	> 55.0	-	-	-

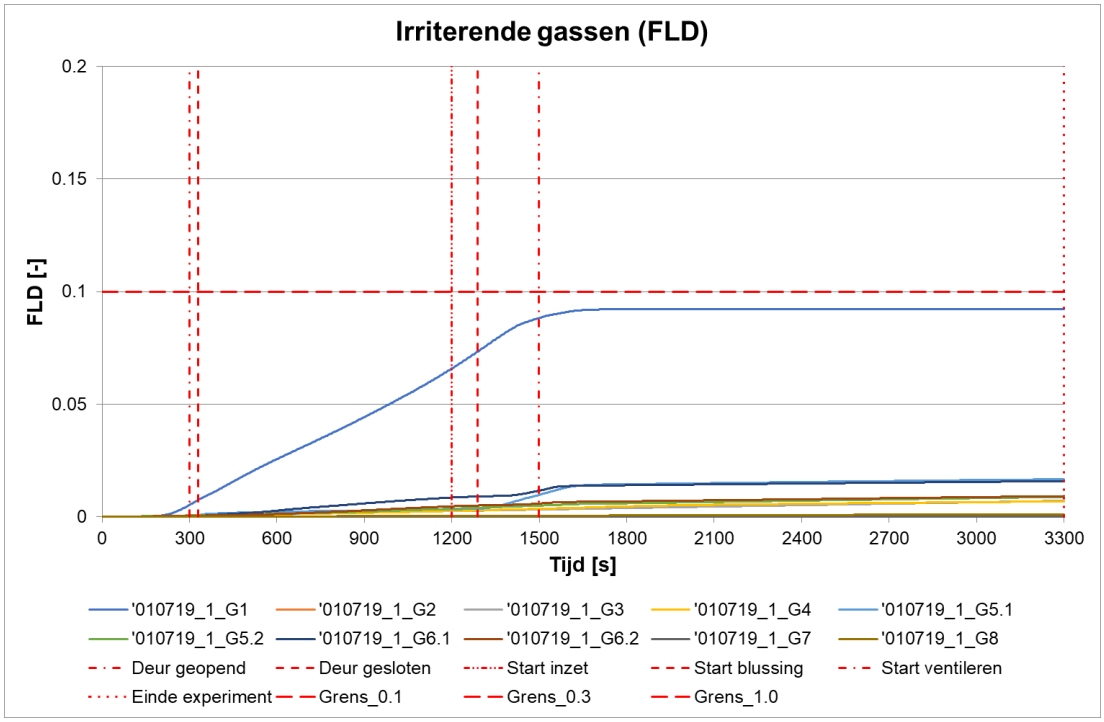



Overzicht
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (1,5 m)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (0,3 m)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

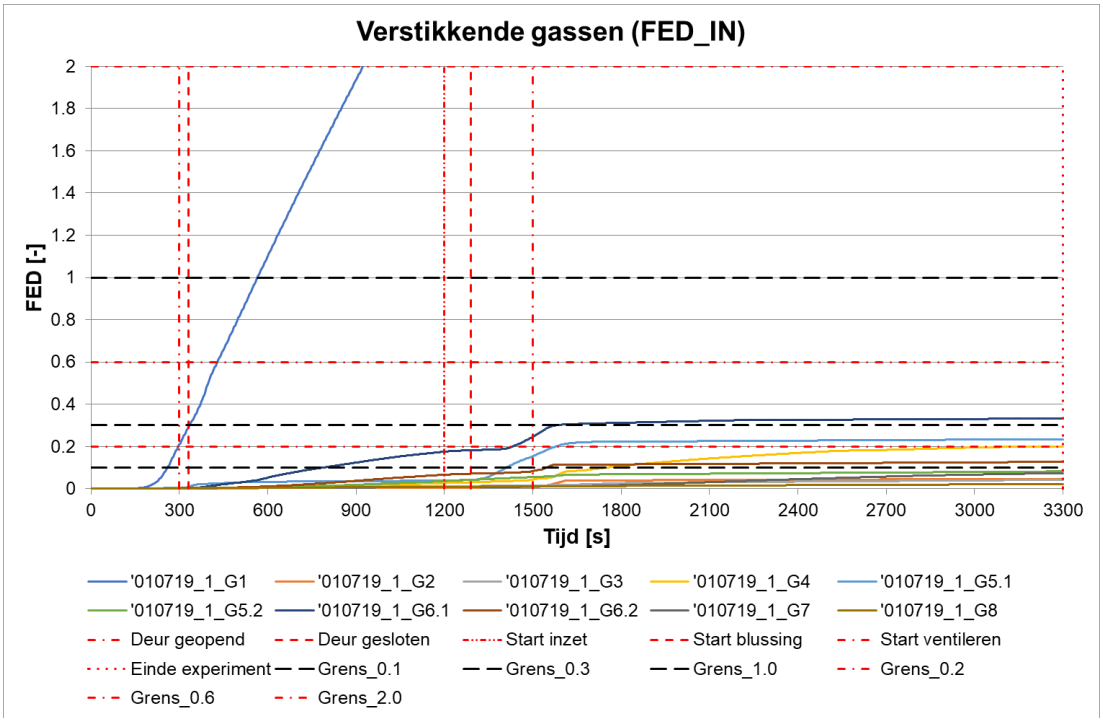
C. Deployment phase (20 - 55 minutes)

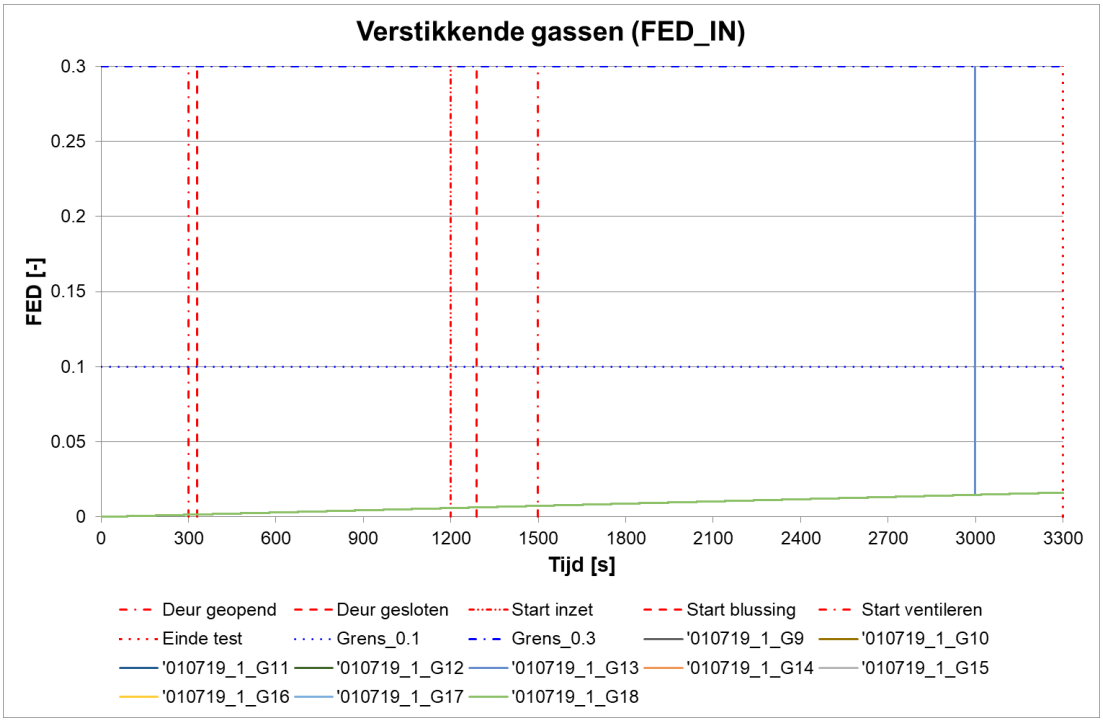
Irritant gases



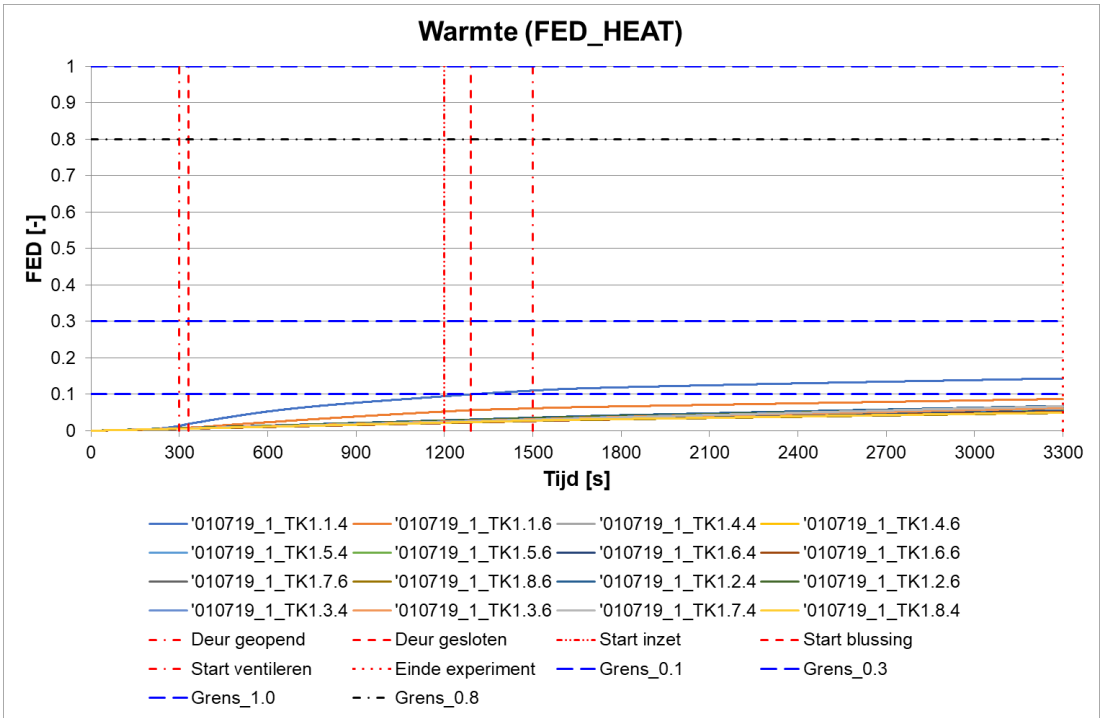


Asphyxiant gases

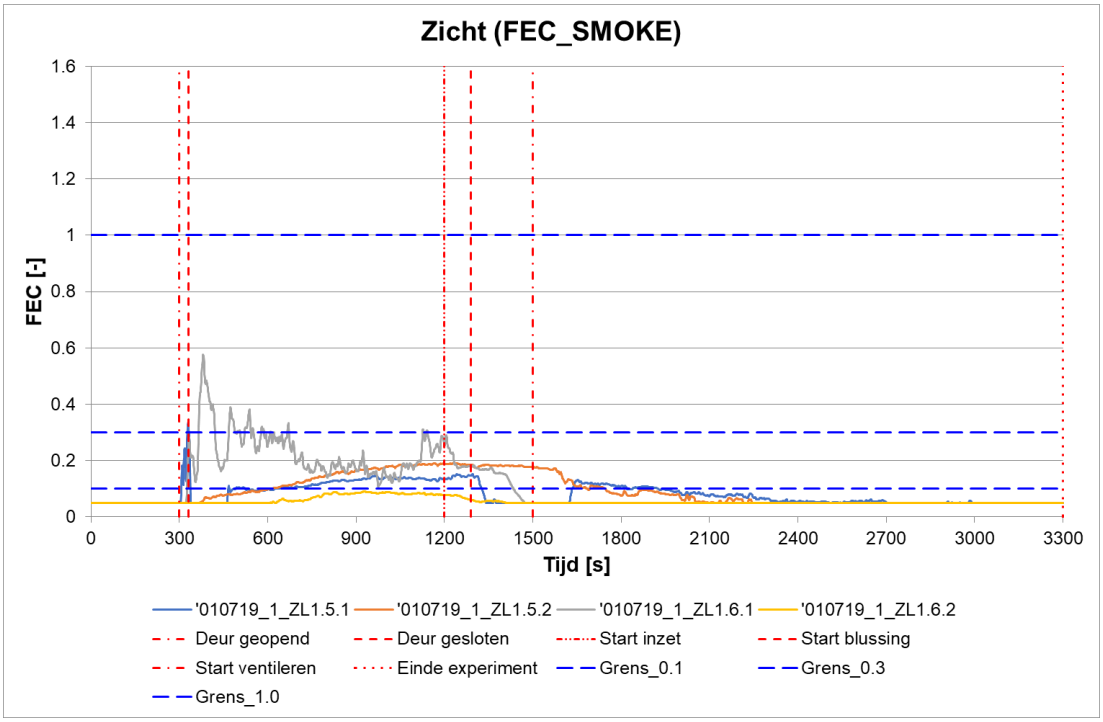




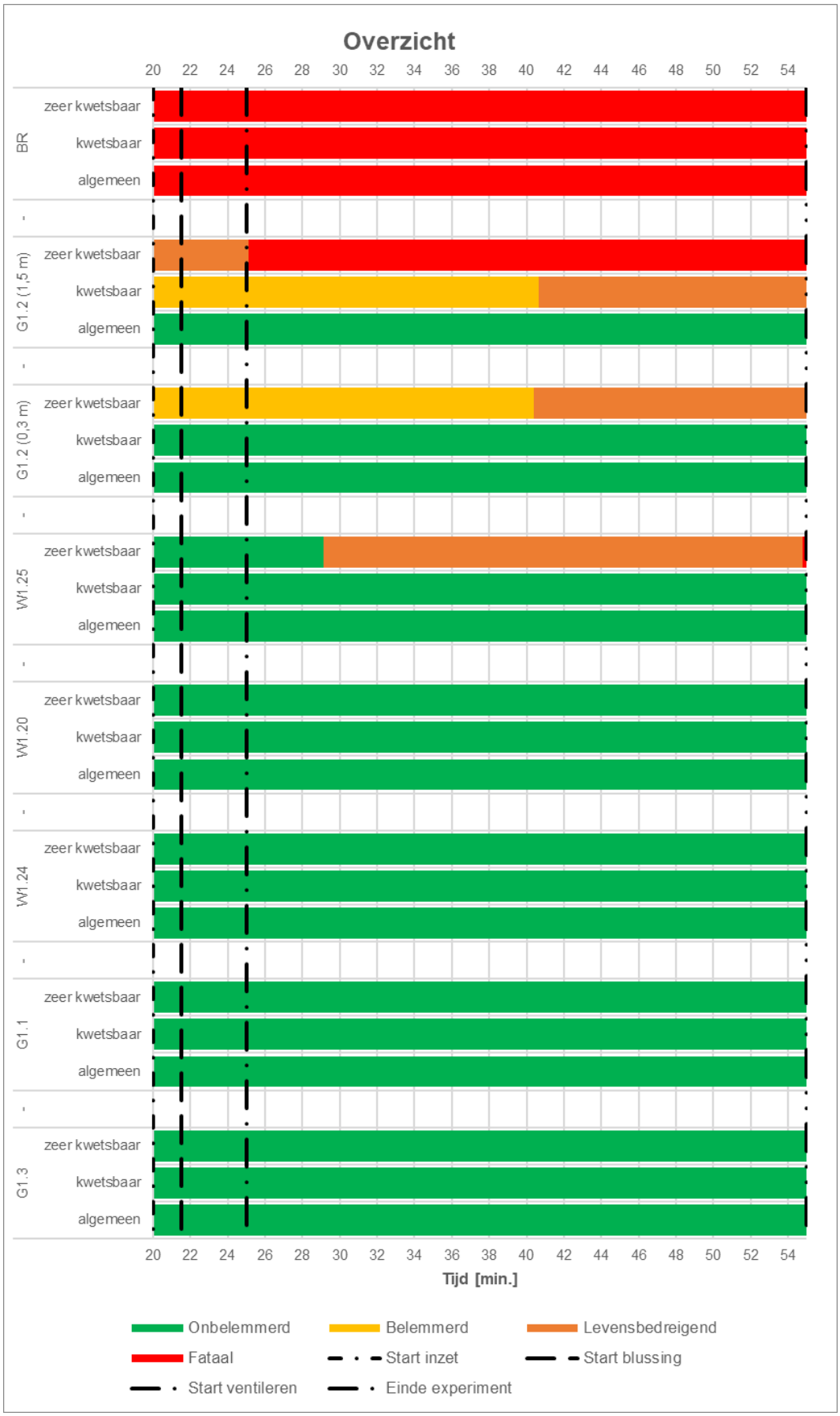
Heat



Visibility



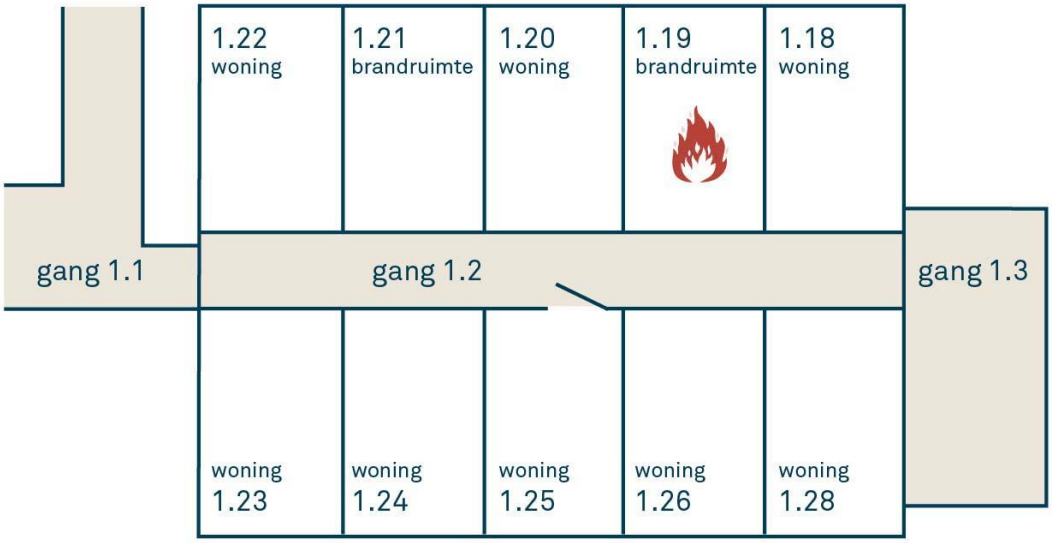
Overview


Overzicht
20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54
BR
G1.2 (1,5 m)
G1.2 (0,3 m)
W1.25
W1.20
W1.24
G1.1
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
-
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Start inzet
Start blussing
Start ventileren
Einde experiment

Test 11 (variant 4: mobile water mist, smoke resistant partition and door closed) 07/01/19

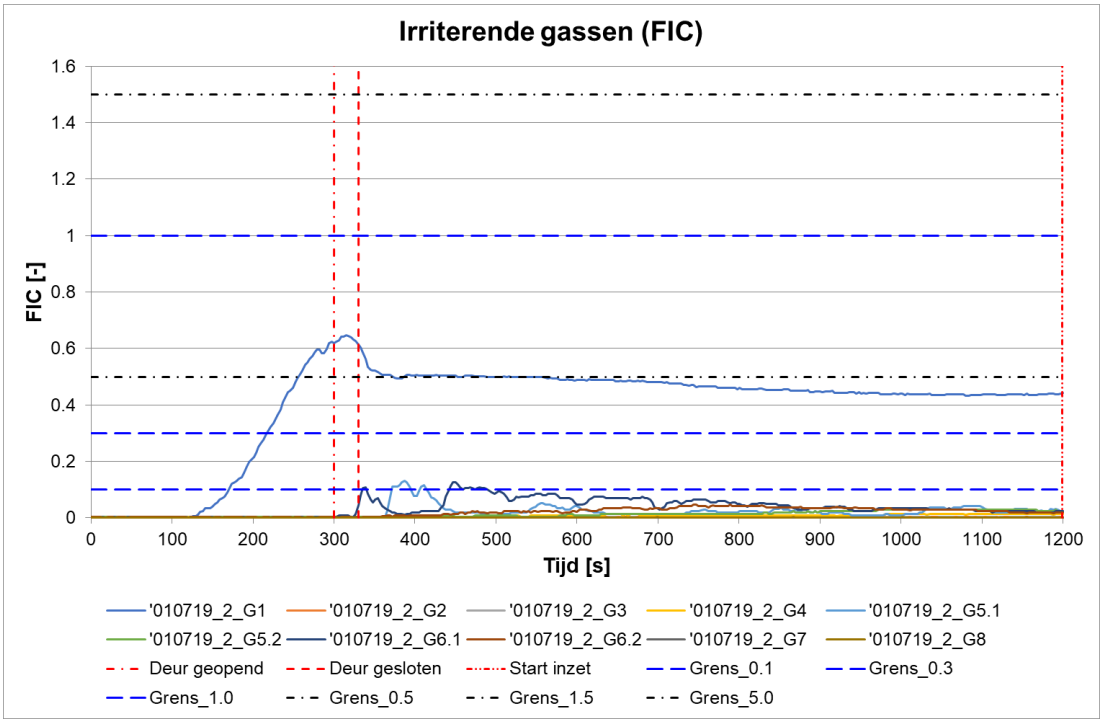
A. Description of the test

Test number	11
Date	01/07/2019
Morning / afternoon	Afternoon
Fire room	1.19
Door to the fire room open / closed	Closed
Fire service deployment	Defensive interior attack
Extra measures	Mobile water mist Smoke-resistant door S200
Specific aspects	Mobile water mist was activated 1 minutes and 57 second after the start of the test.



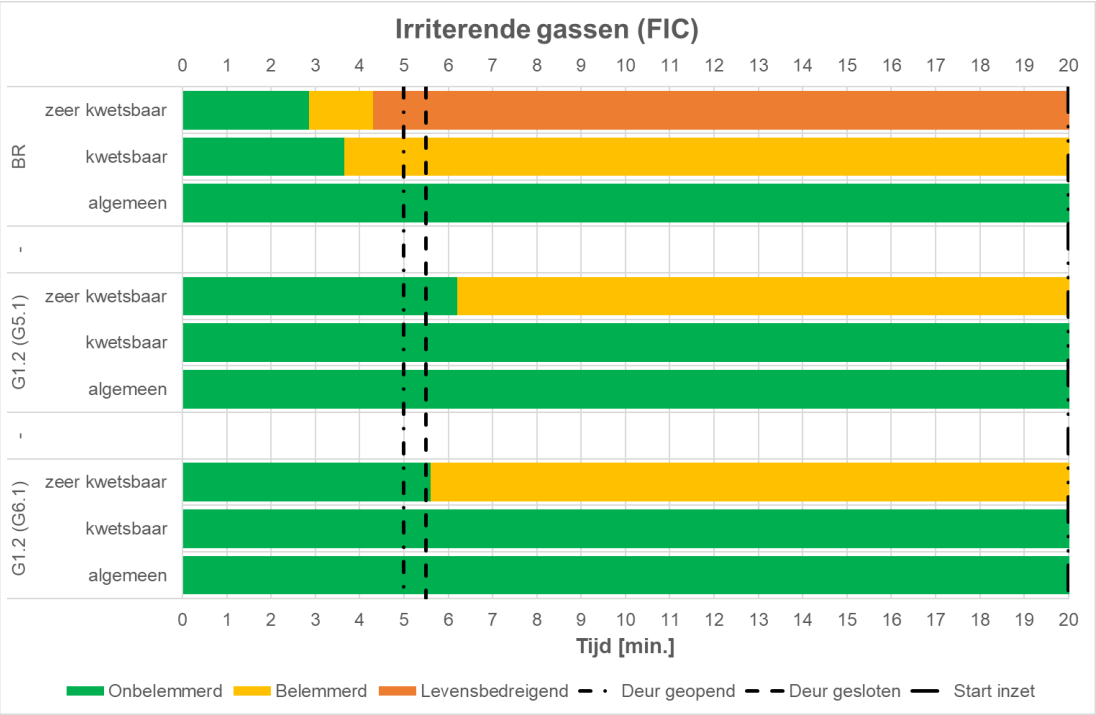
B. Escape phase (0 - 20 minutes)

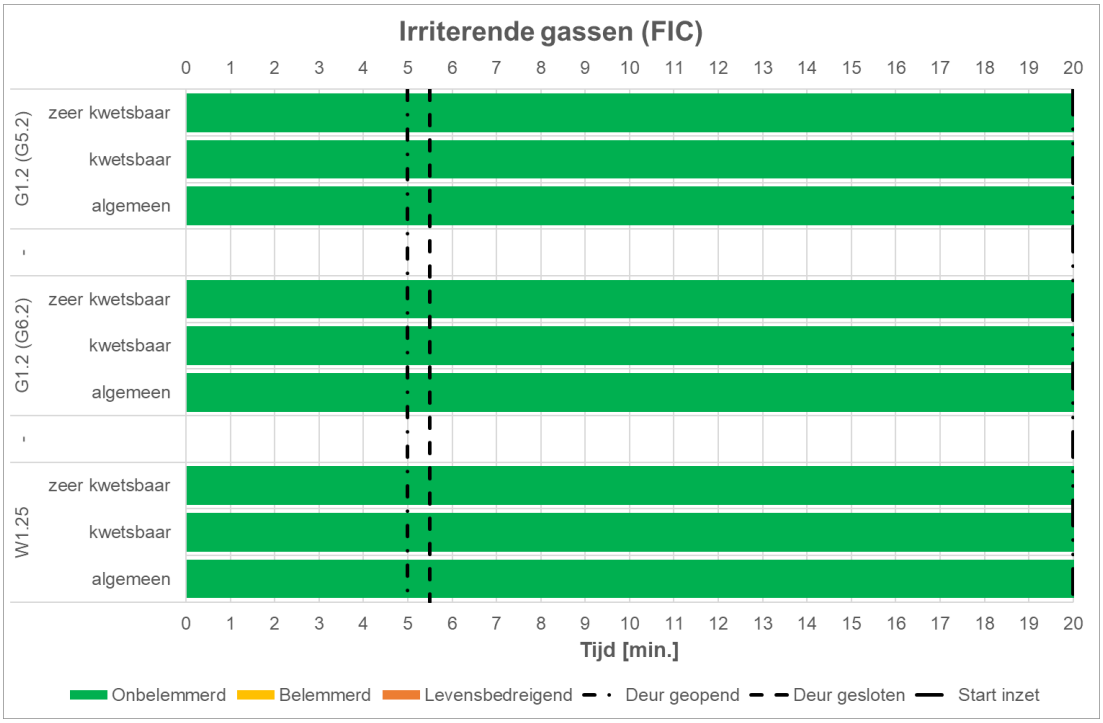
Irritant gases

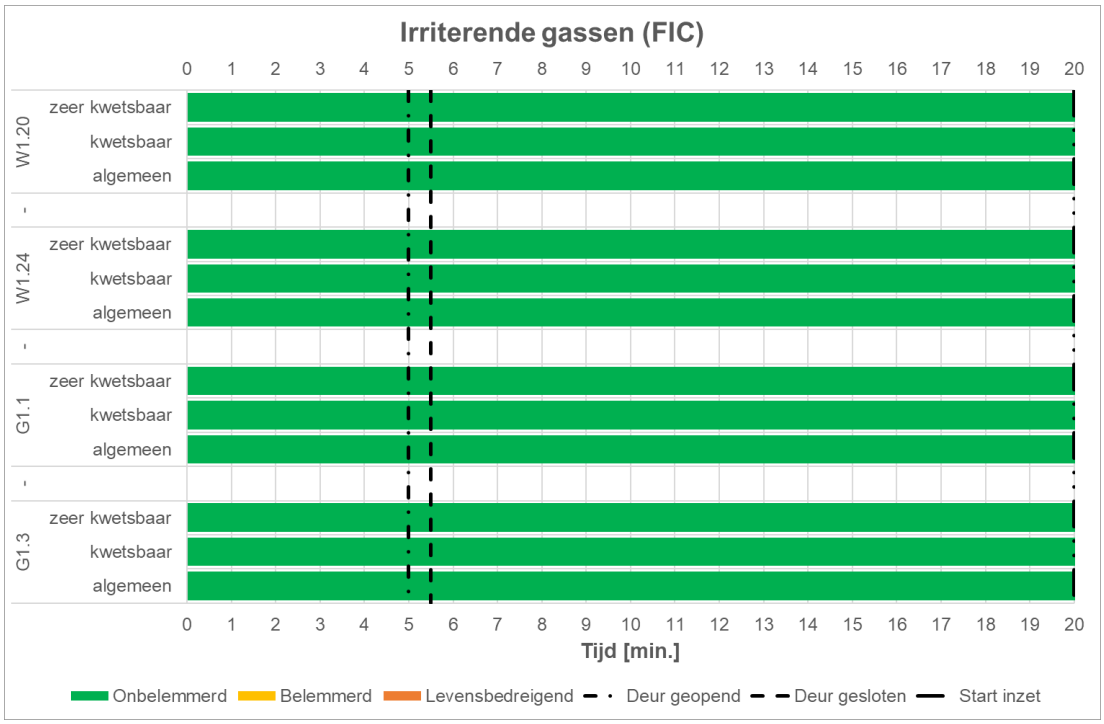


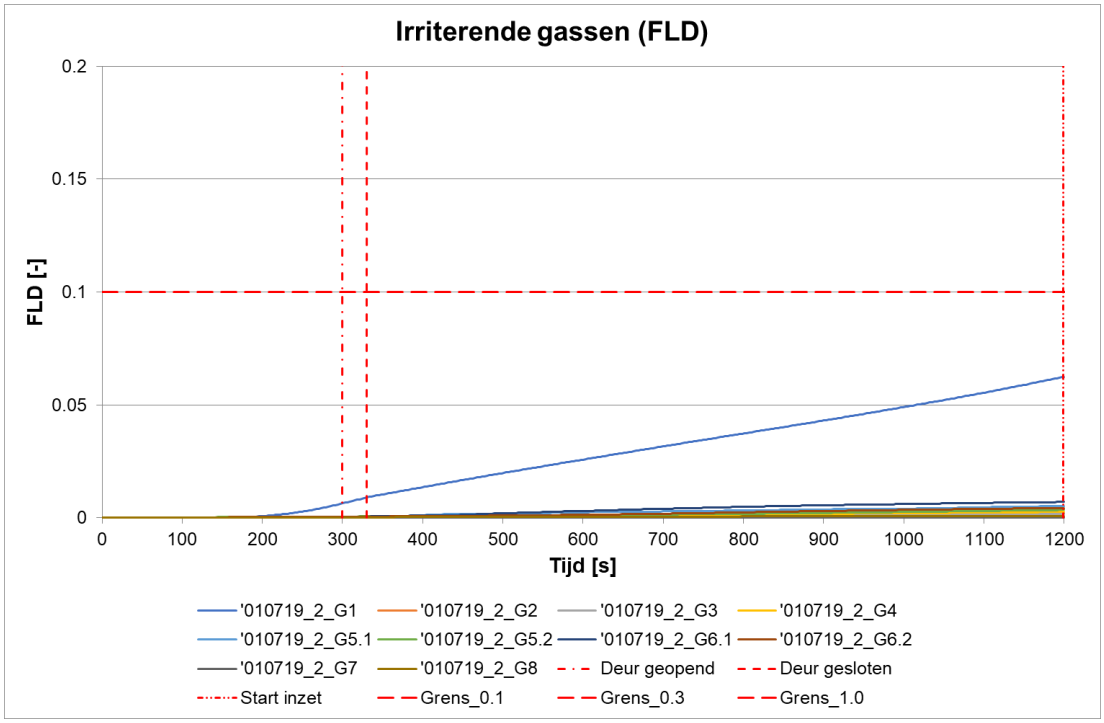
	Irritant gases (FIC)				
	Group	Threshold [-]	Safe [min.]	Impaired [min.]	Life-threatening [min.]
Fire room 1.19 G1	Highly vulnerable	0.1/0.5	2.9	4.3	> 4.3
	Vulnerable	0.3/1.5	3.7	> 55.0	-
	General	1.0/5.0	> 55.0	-	-
Residence 1.20 G2	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Residence 1.24 G3	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-

Residence 1.25 G4	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.5	6.2	> 55.0	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.5	5.6	> 55.0	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	


Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G5.1)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.1)
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Deur gesloten
Start inzet

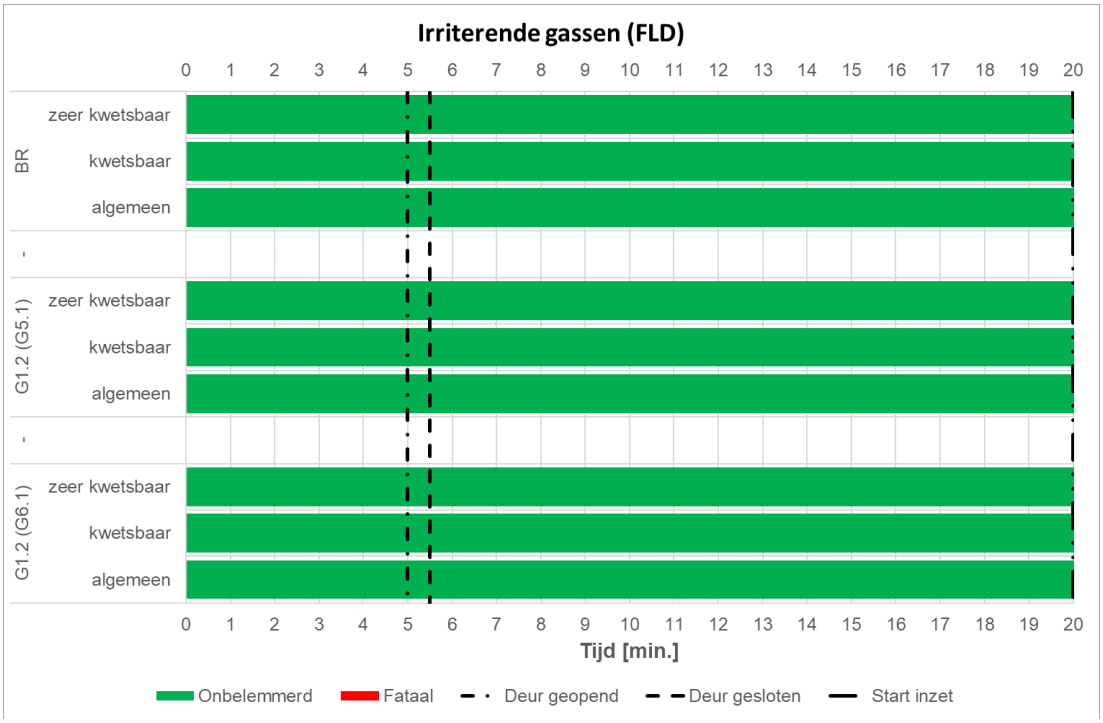

Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Deur gesloten
Start inzet


Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Deur gesloten
Start inzet

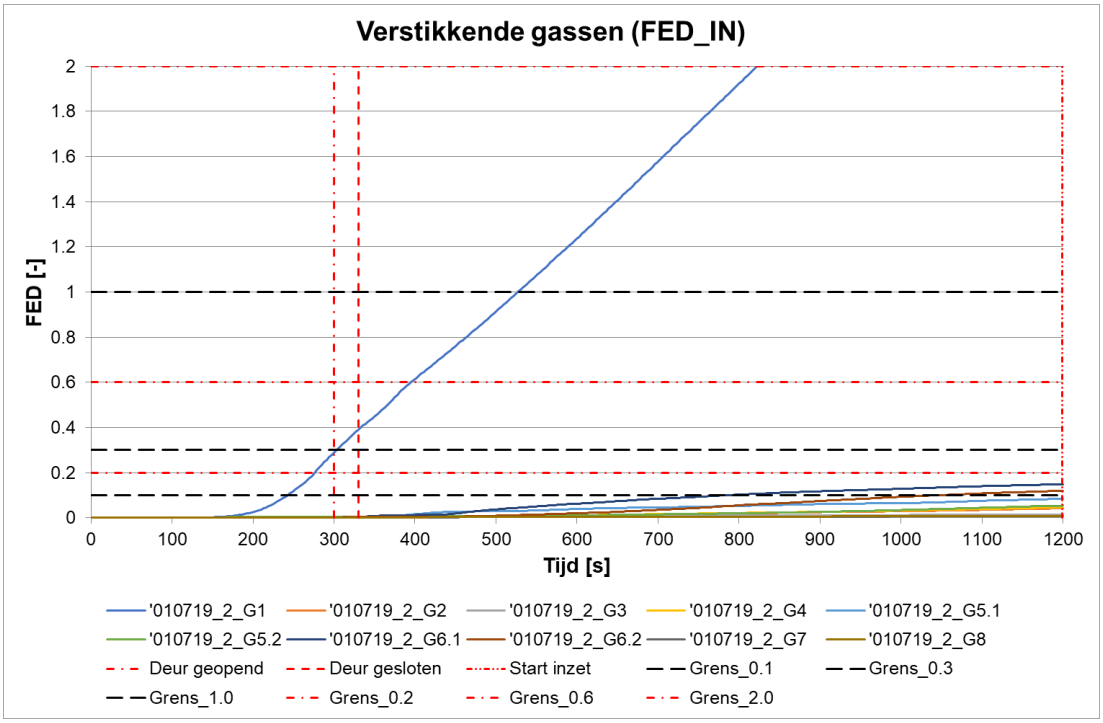

Irriterende gassen (FLD)
0.2
0.15
0.1
0.05
0
FLD [-]
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
Tijd [s]
'010719_2_G1
'010719_2_G2
'010719_2_G3
'010719_2_G4
'010719_2_G5.1
'010719_2_G5.2
'010719_2_G6.1
'010719_2_G6.2
'010719_2_G7
'010719_2_G8
Deur geopend
Deur gesloten
Start inzet
Grens_0.1
Grens_0.3
Grens_1.0

Irritant gases (FLD)				
	Group	Threshold [-]	Safe [min.]	Impaired [min.]
Fire room 1.19 G1	Highly vulnerable	0.1	27.5	> 27.5
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.20 G2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.24 G3	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.25 G4	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G5.1	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G5.2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G6.1	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-

	General	1.0	> 55.0	-
Corridor 1.2 G6.2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.1 G7	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.3 G8	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-

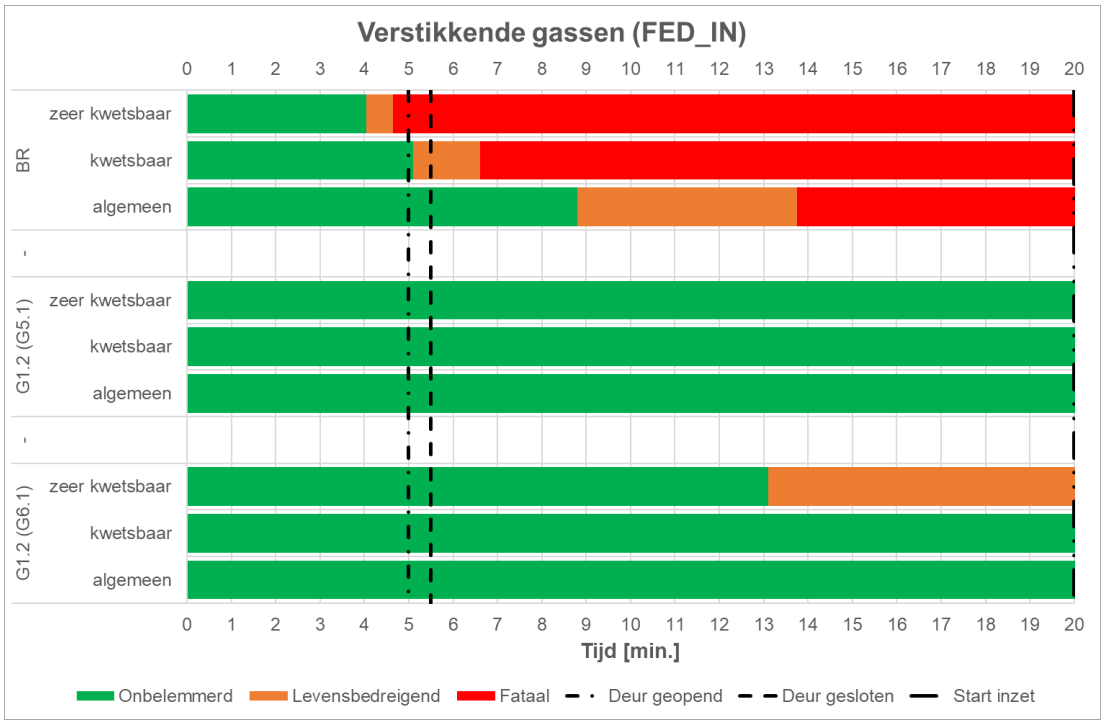


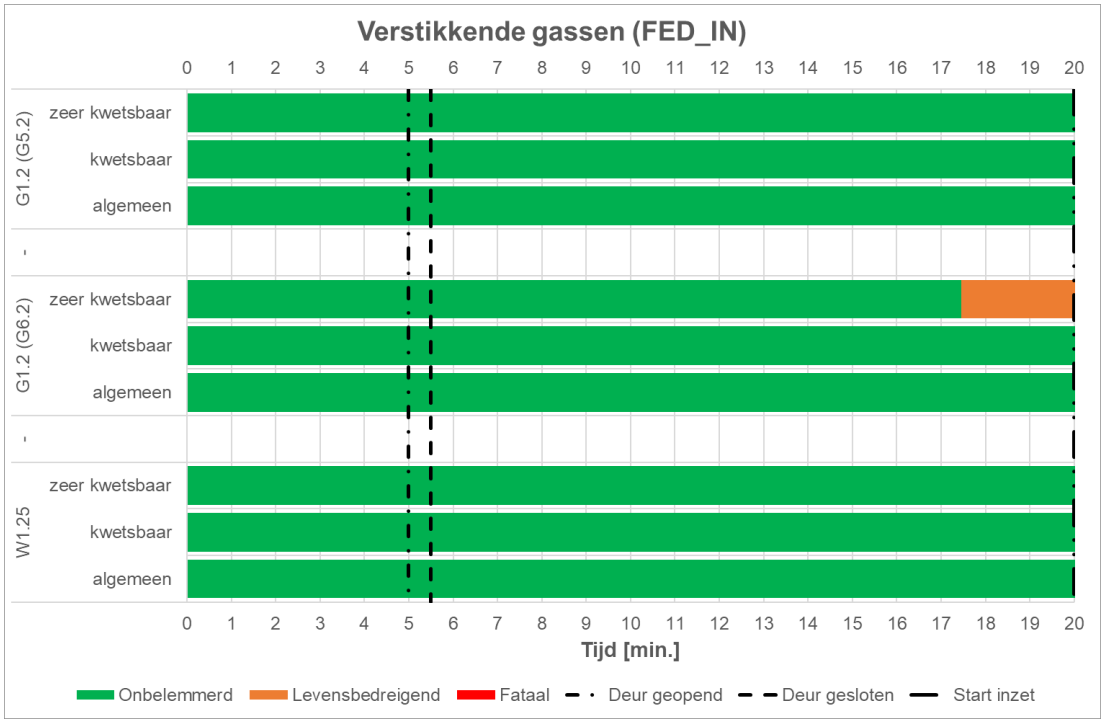
Asphyxiant gases

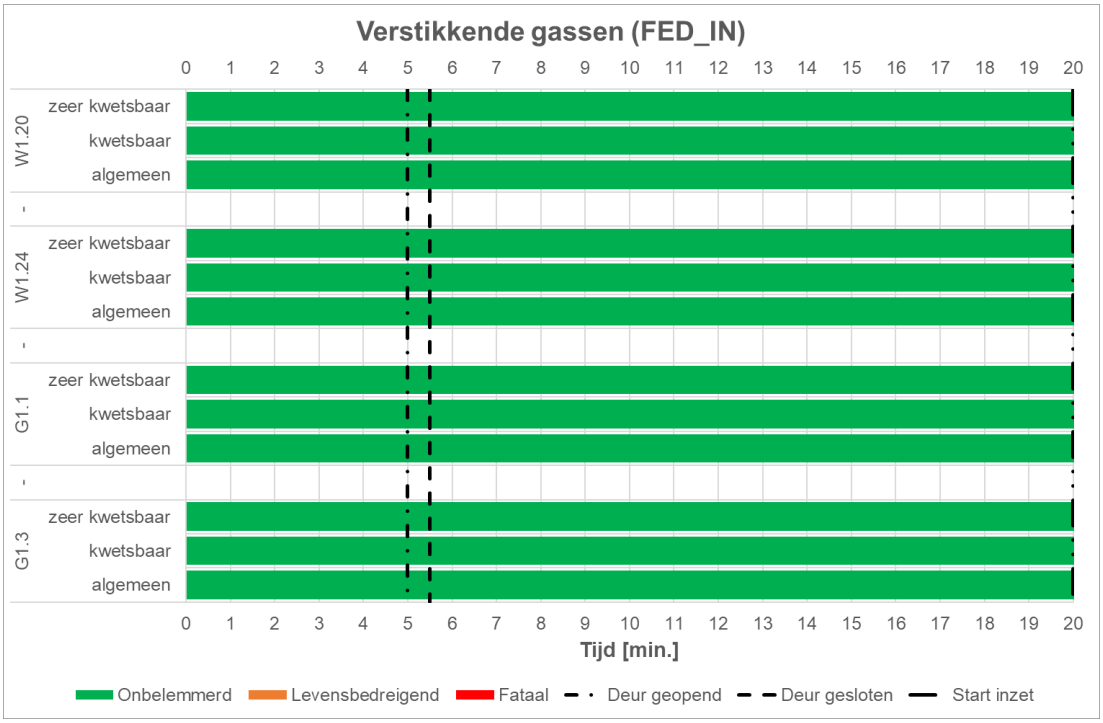


		Asphyxiant gases (FED_IN)			
	Group	Threshold [-]	Safe [min.]	Life-threatening [min.]	Fatal [min.]
Fire room 1.19 G1	Highly vulnerable	0.1/0.2	4.1	4.7	> 4.7
	Vulnerable	0.3/0.6	5.1	6.6	> 6.6
	General	1.0/2.0	8.8	13.8	> 13.6
Residence 1.20 G2	Highly vulnerable	0.1/0.2	33.0	40.0	> 40.0
	Vulnerable	0.3/0.6	42.1	> 55.0	-
	General	1.0/2.0	> 55.0	-	-
Residence 1.24 G3	Highly vulnerable	0.1/0.2	> 55.0	-	-
	Vulnerable	0.3/0.6	> 55.0	-	-
	General	1.0/2.0	> 55.0	-	-
Residence 1.25	Highly vulnerable	0.1/0.2	29.6	42.6	> 42.6

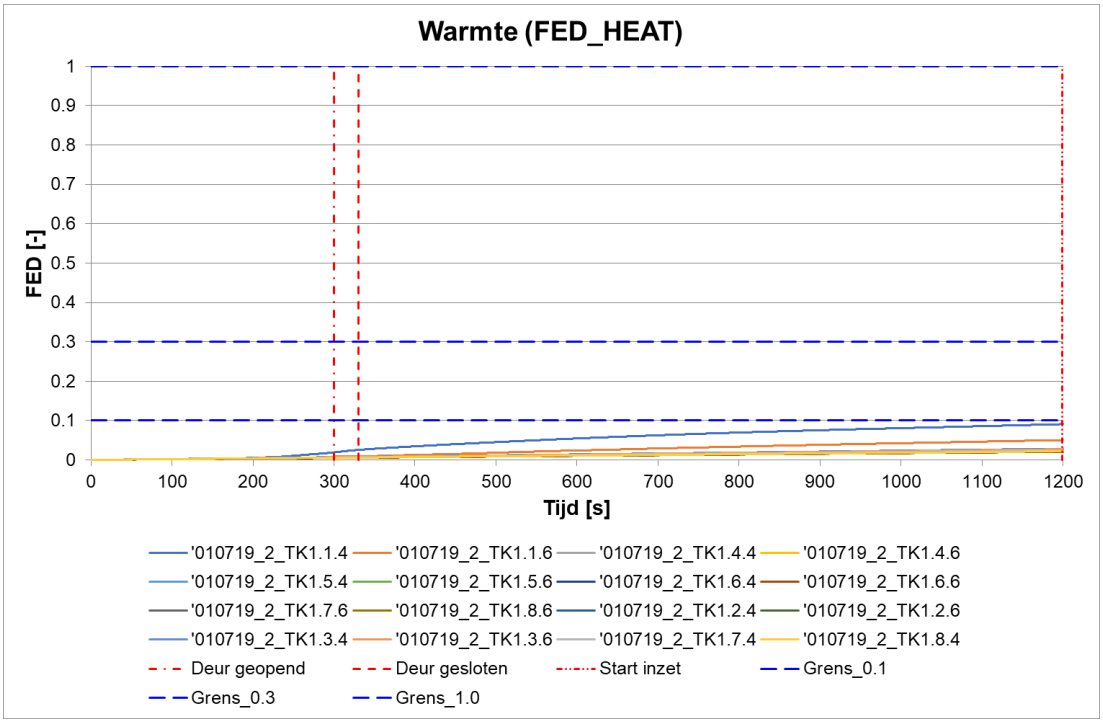
G4	Vulnerable	0.3/0.6	54.0	> 55.0	-
	General	1.0/2.0	> 55.0	-	-
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.2	22.6	38.3	> 38.3
	Vulnerable	0.3/0.6	40.9	> 55.0	-
	General	1.0/2.0	> 55.0	-	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.2	30.2	40.5	> 40.5
	Vulnerable	0.3/0.6	> 55.0	-	-
	General	1.0/2.0	> 55.0	-	-
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.2	13.1	35.9	> 35.9
	Vulnerable	0.3/0.6	38.2	> 55.0	-
	General	1.0/2.0	> 55.0	-	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.2	17.5	37.3	> 37.3
	Vulnerable	0.3/0.6	38.8	> 55.0	-
	General	1.0/2.0	> 55.0	-	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.2	> 55.0	-	-
	Vulnerable	0.3/0.6	> 55.0	-	-
	General	1.0/2.0	> 55.0	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.2	> 55.0	-	-
	Vulnerable	0.3/0.6	> 55.0	-	-
	General	1.0/2.0	> 55.0	-	-


Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G5.1)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.1)
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet


Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

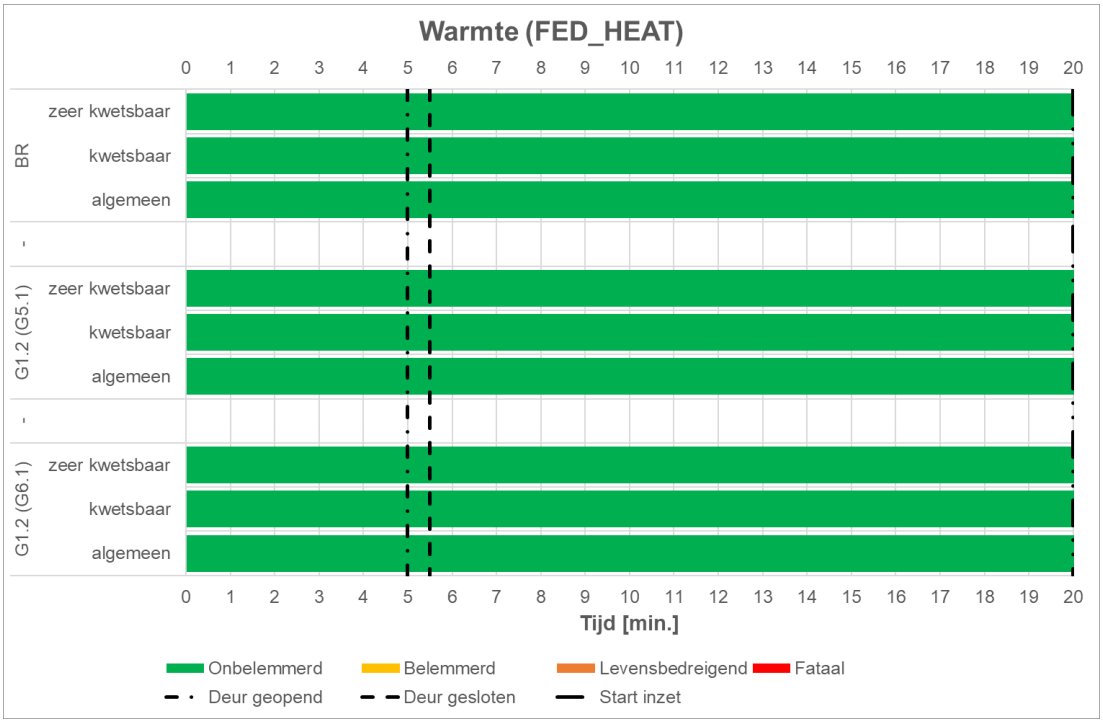

Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

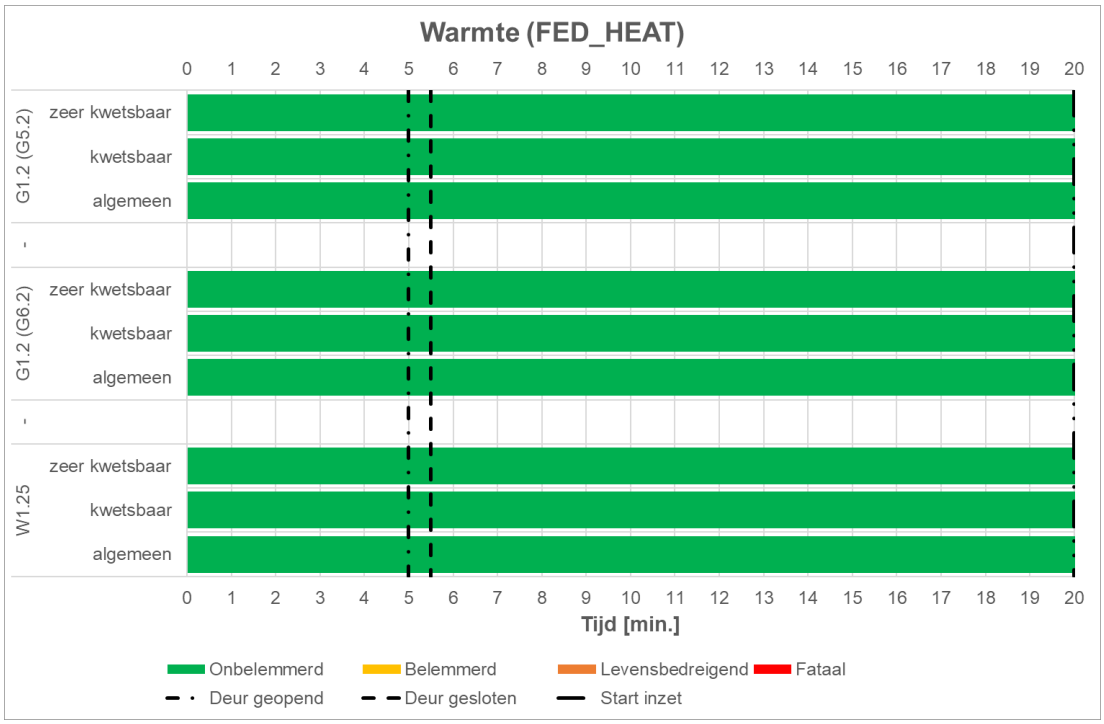
Heat

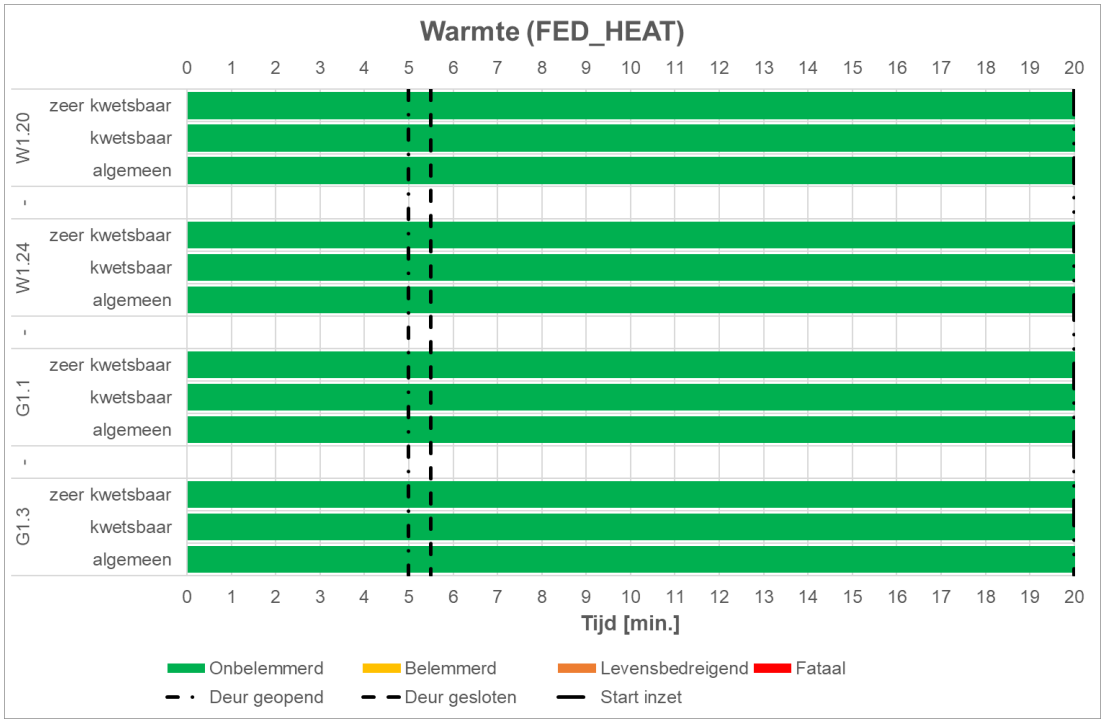

Warmte (FED_HEAT)
FED [-]
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
Tijd [s]
'010719_2_TK1.1.4
'010719_2_TK1.1.6
'010719_2_TK1.4.4
'010719_2_TK1.4.6
'010719_2_TK1.5.4
'010719_2_TK1.5.6
'010719_2_TK1.6.4
'010719_2_TK1.6.6
'010719_2_TK1.7.6
'010719_2_TK1.8.6
'010719_2_TK1.2.4
'010719_2_TK1.2.6
'010719_2_TK1.3.4
'010719_2_TK1.3.6
'010719_2_TK1.7.4
'010719_2_TK1.8.4
Deur geopend
Deur gesloten
Start inzet
Grens_0.1
Grens_0.3
Grens_1.0

Heat (FED_HEAT)						
	Group	Threshold [-]	Safe [min.]	Impaired [min.]	Life-threatening [min.]	Fatal [min.
Fire room 1.19 G1	Highly vulnerable	0.1/0.8/1.2	23.0	> 55.0	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Residence 1.20 G2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Residence 1.24 G3	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Residence 1.25 G4	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-

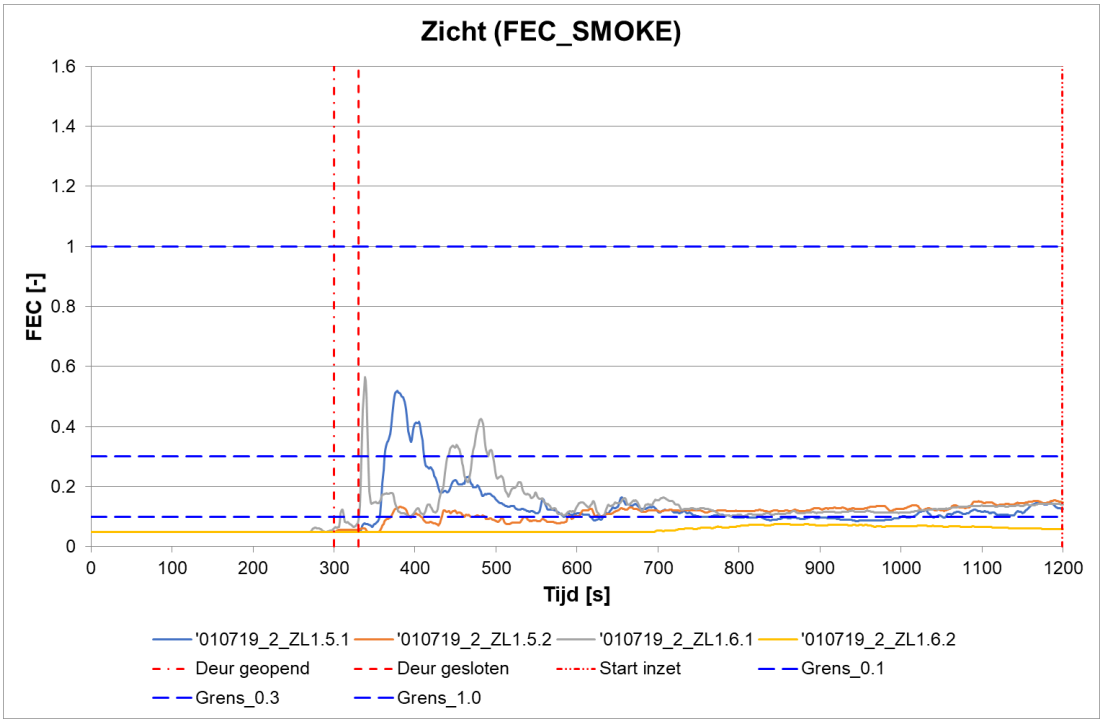
G6.1	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-




Warmte (FED_HEAT)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

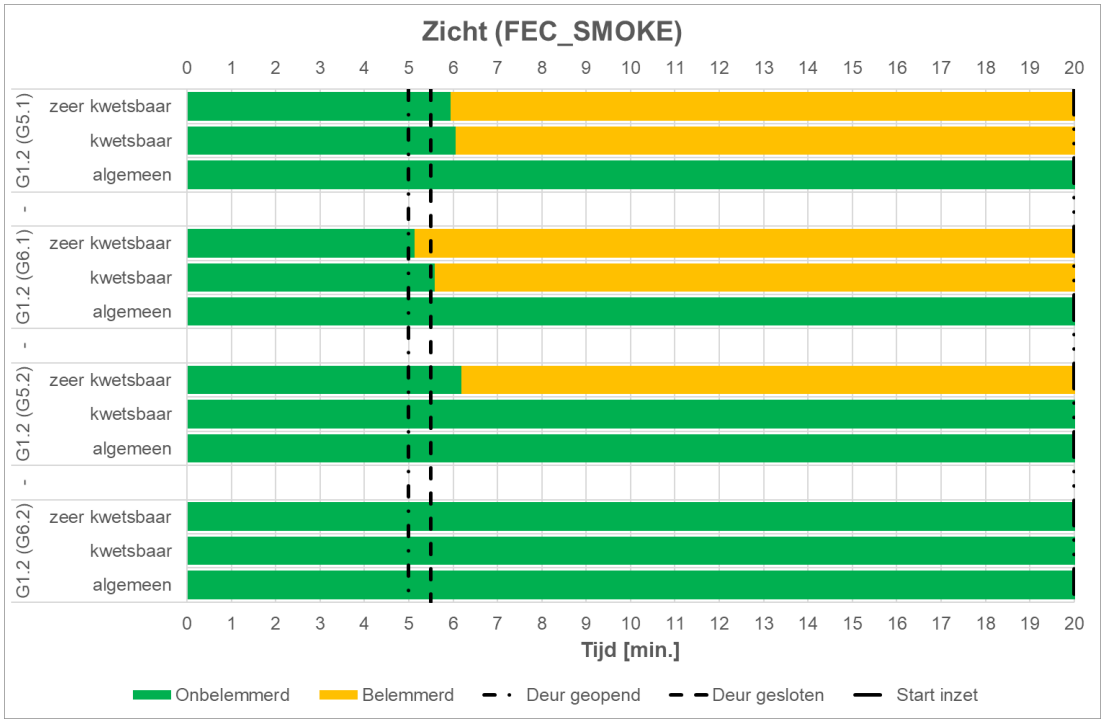

Warmte (FED_HEAT)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

Visibility

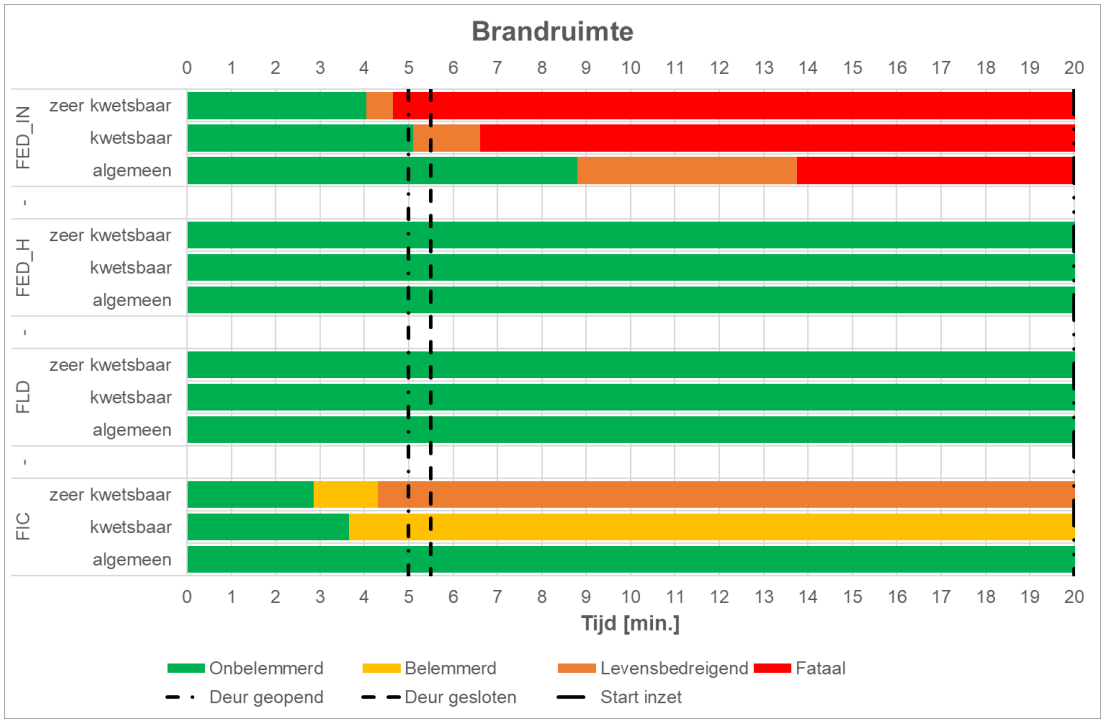


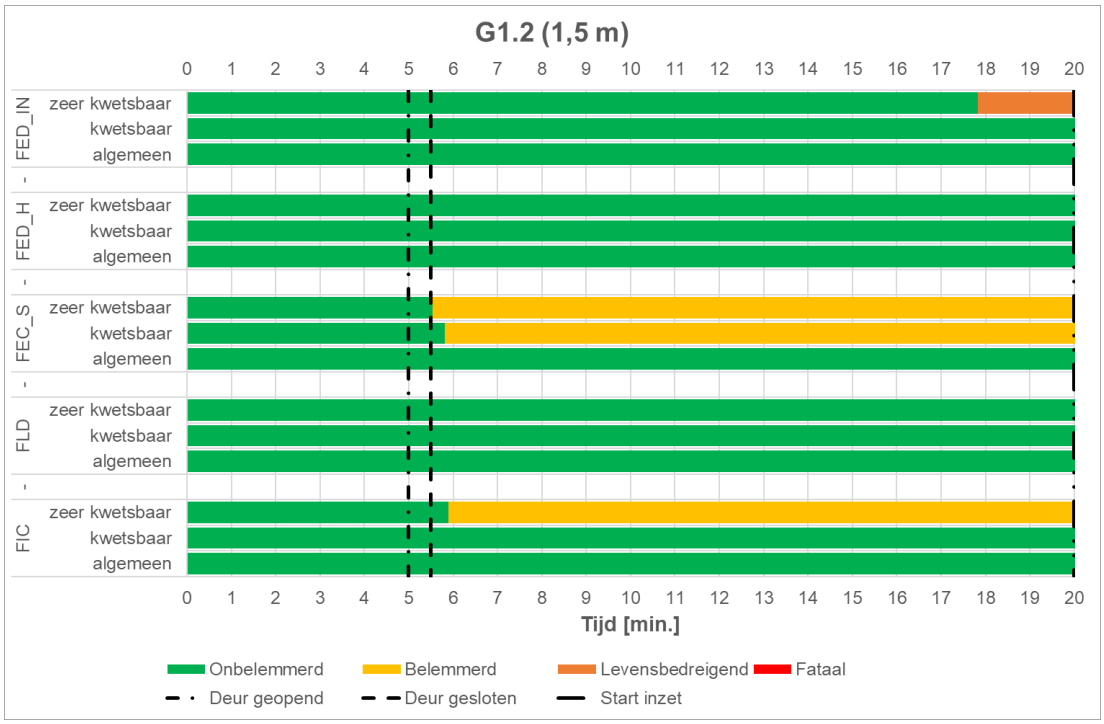
Visibility (FEC_SMOKE)				
	Group	Threshold [-]	Safe [min.]	Impaired [min.]
Corridor 1.2 G5.1	Highly vulnerable	0.1	6.0	> 6.0
	Vulnerable	0.3	6.1	> 6.1
	General	1.0	> 55.0	-
Corridor 1.2 G5.2	Highly vulnerable	0.1	6.2	> 6.2
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G6.1	Highly vulnerable	0.1	5.1	> 5.1
	Vulnerable	0.3	5.6	> 5.6
	General	1.0	> 55.0	-

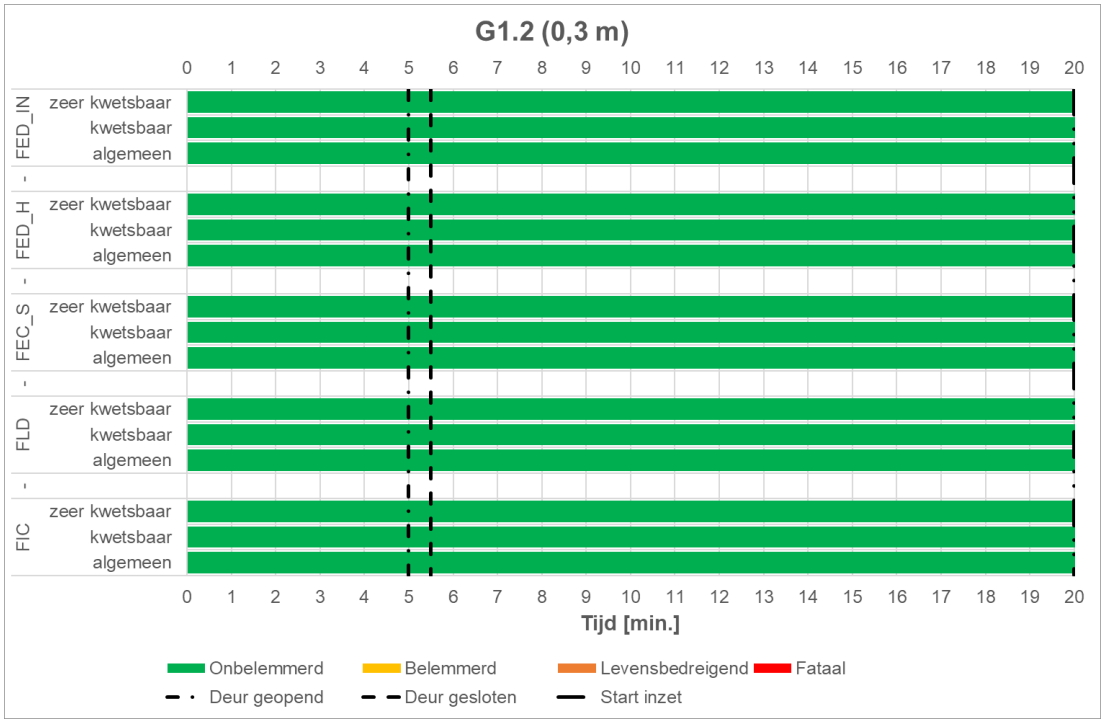
Corridor 1.2 G6.2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-



Overview

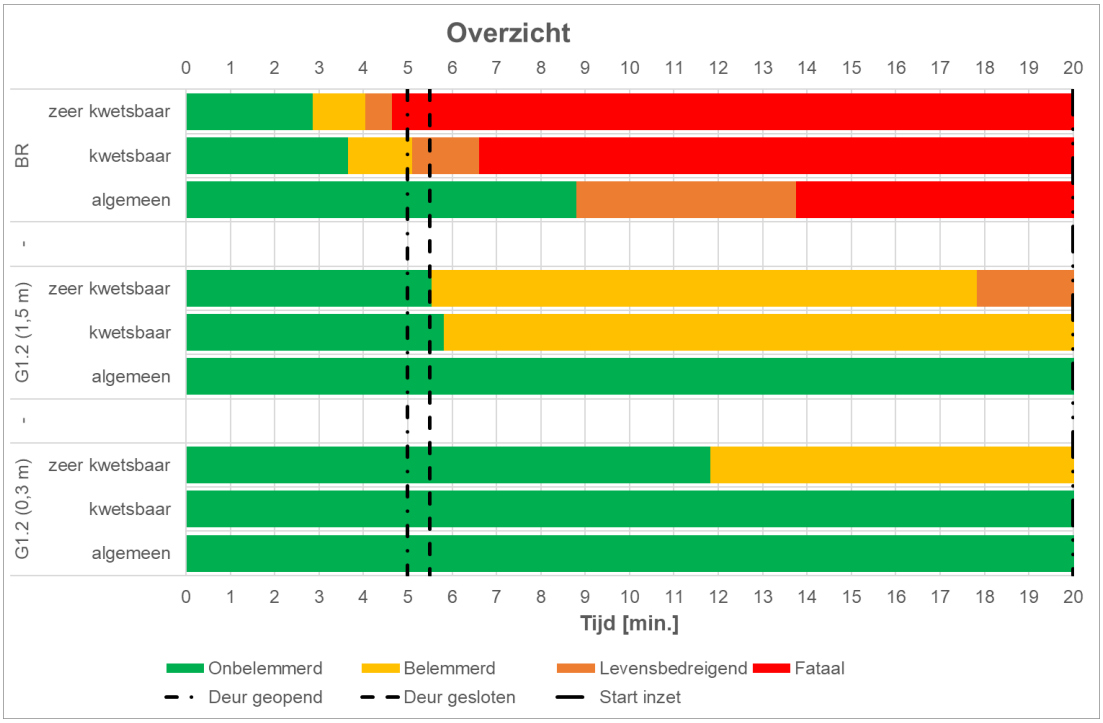


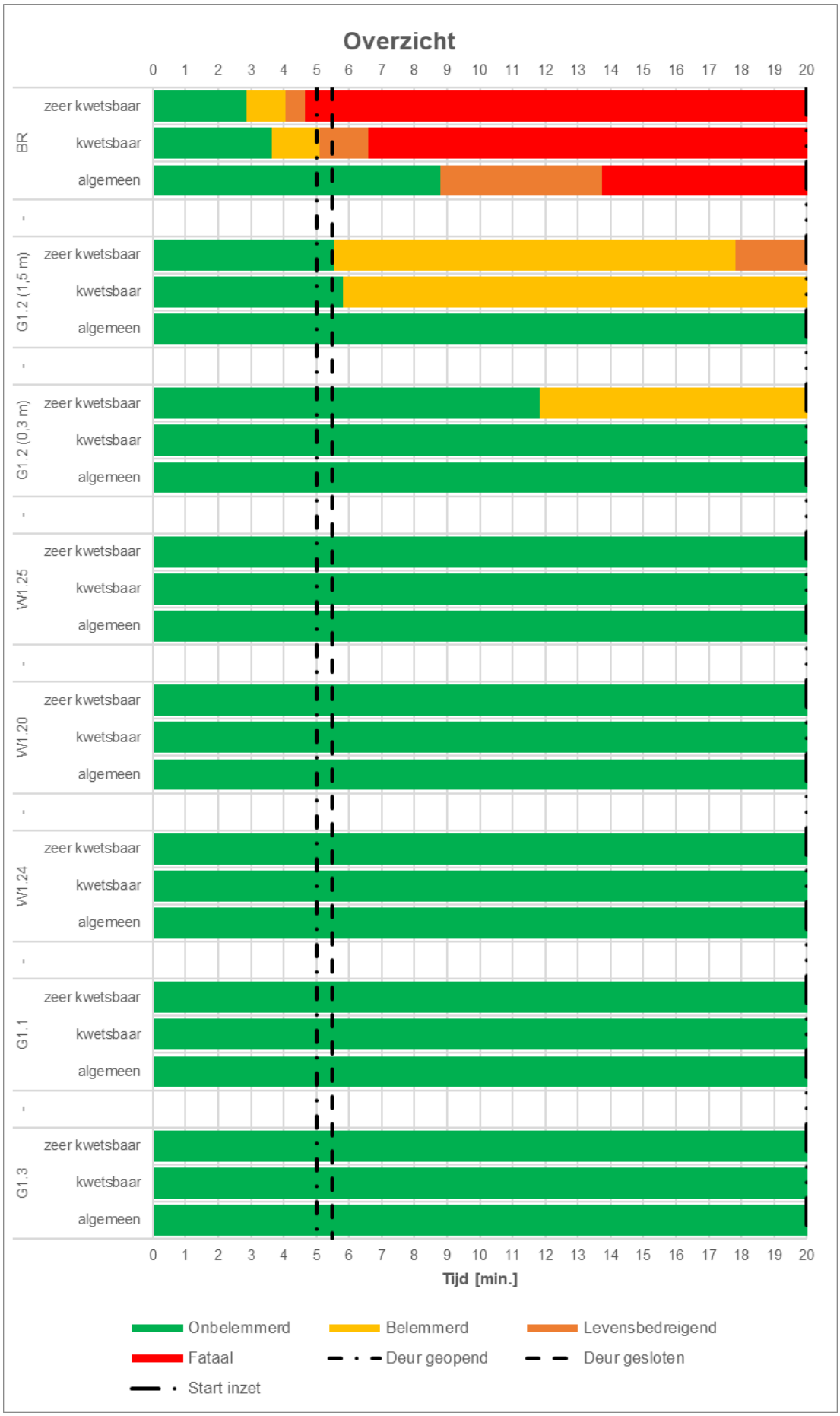

G1.2 (1,5 m)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
FED_IN
FED_H
FEC_S
FLD
FIC
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet


G1.2 (0,3 m)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
FED_IN
FED_H
FEC_S
FLD
FIC
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

	Overview	Escape		Survivability	
	Group	Safe [min.]	Impaired [min.]	Life-threatening [min.]	Fatal [min.]
Fire room 1.19 G1	Highly vulnerable	2.9	4.1	4.7	> 4.7
	Vulnerable	3.7	5.1	6.6	> 6.6
	General	8.8	8.8	13.8	> 13.8
Residence 1.20 G2	Highly vulnerable	33.0	33.0	40.0	> 40.0
	Vulnerable	42.1	42.1	> 55.0	-
	General	> 55.0	-	-	-
Residence 1.24 G3	Highly vulnerable	> 55.0	-	-	-
	Vulnerable	> 55.0	-	-	-
	General	> 55.0	-	-	-
Residence 1.25 G4	Highly vulnerable	29.6	29.6	42.6	> 42.6
	Vulnerable	54.0	54.0	> 55.0	-
	General	> 55.0	-	-	-
Corridor 1.2 G5.1	Highly vulnerable	6.0	22.6	38.3	> 38.3
	Vulnerable	6.1	40.9	55.0	-
	General	> 55.0	-	-	-
Corridor 1.2 G5.2	Highly vulnerable	6.2	30.2	40.5	> 40.5
	Vulnerable	> 55.0	-	-	-
	General	> 55.0	-	-	-
Corridor 1.2	Highly vulnerable	5.1	13.1	35.9	> 35.9

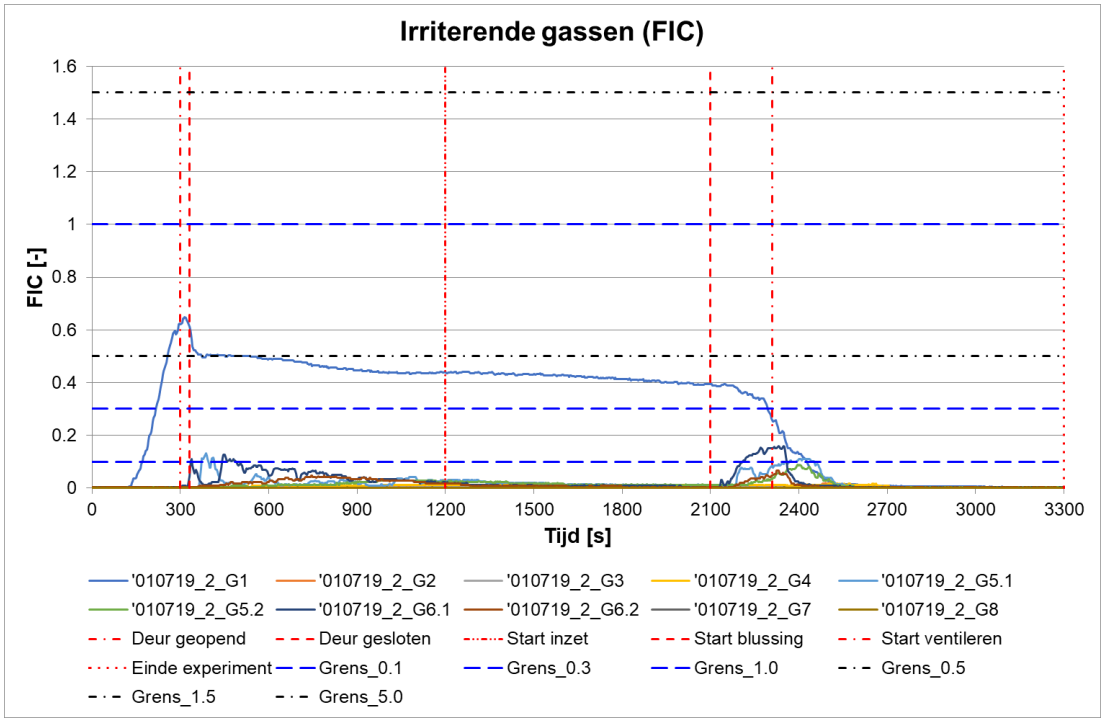
G6.1	Vulnerable	5.6	38.2	> 55.0	-
	General	> 55.0	-	-	-
Corridor 1.2 G6.2	Highly vulnerable	17.5	17.5	37.3	> 37.3
	Vulnerable	38.8	38.8	> 55.0	-
	General	> 55.0	-	-	-
Corridor 1.1 G7	Highly vulnerable	> 55.0	-	-	-
	Vulnerable	> 55.0	-	-	-
	General	> 55.0	-	-	-
Corridor 1.3 G8	Highly vulnerable	> 55.0	-	-	-
	Vulnerable	> 55.0	-	-	-
	General	> 55.0	-	-	-

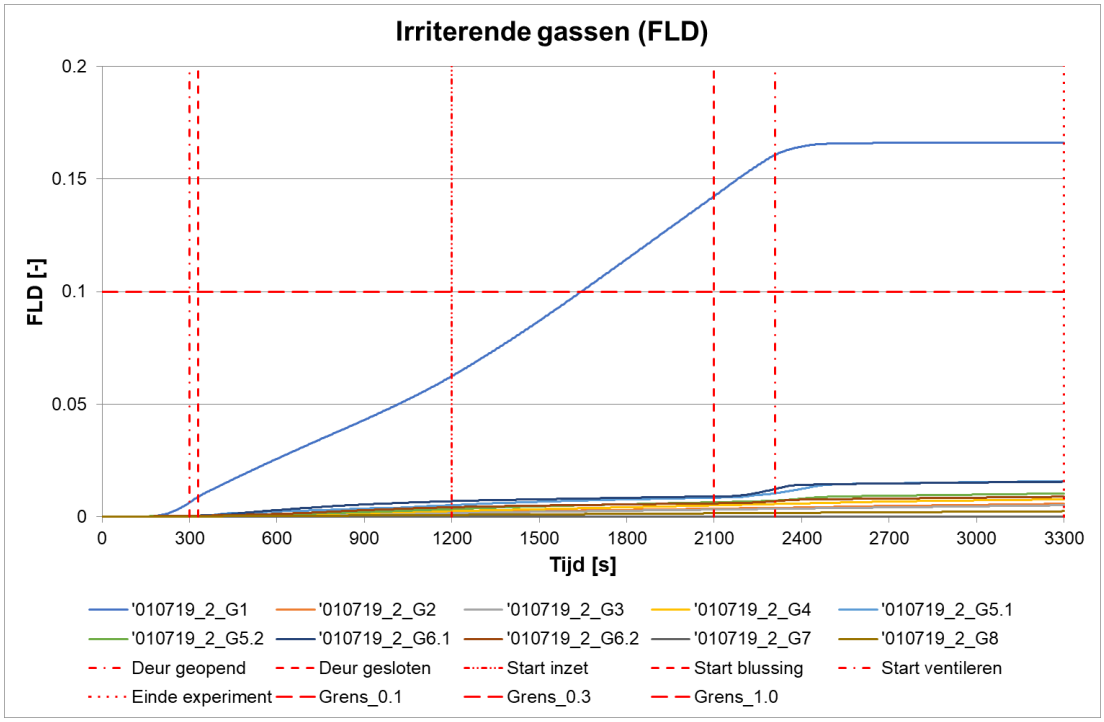



Overzicht
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (1,5 m)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (0,3 m)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

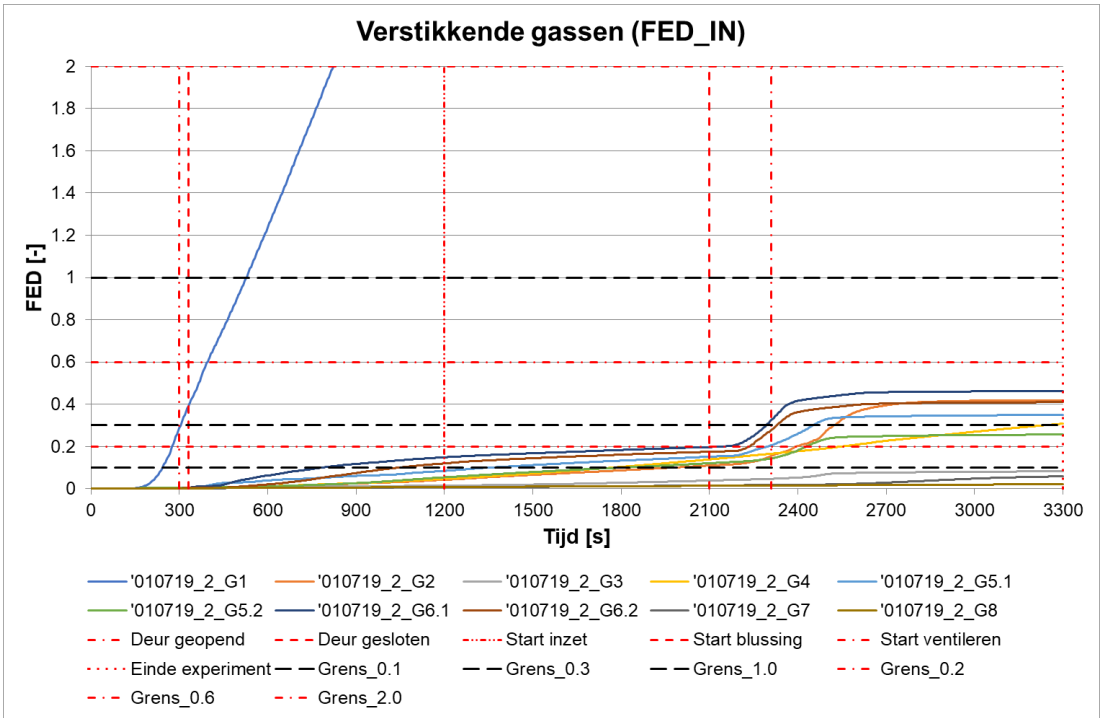
C. Deployment phase (20 - 55 minutes)

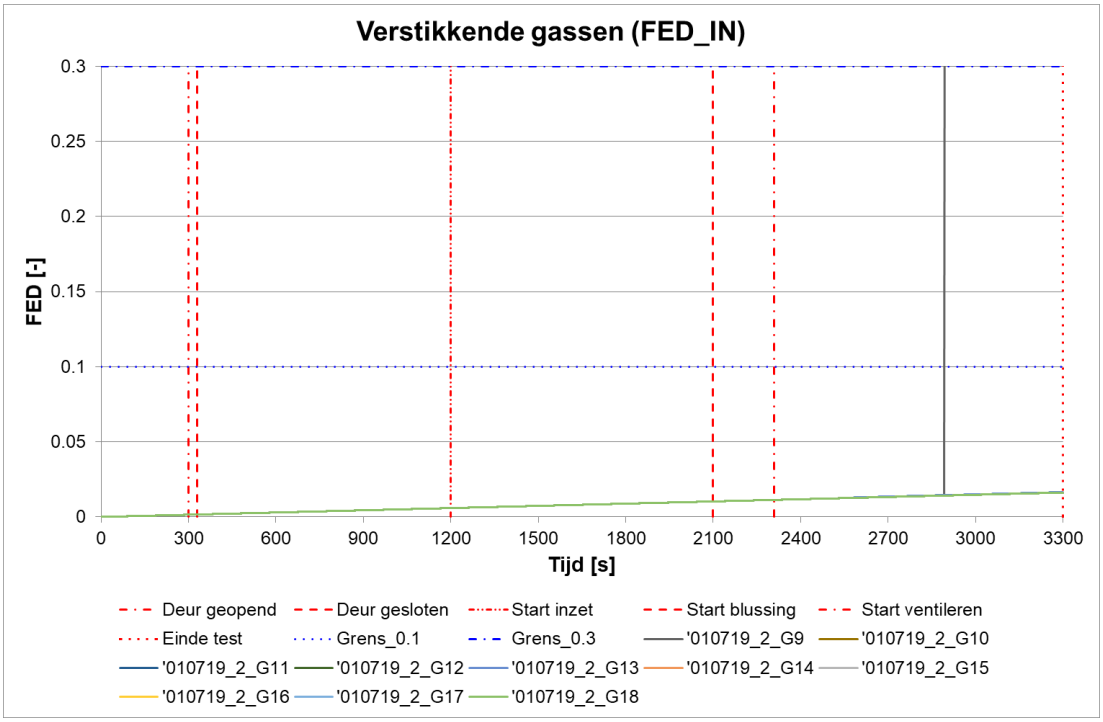
Irritant gases



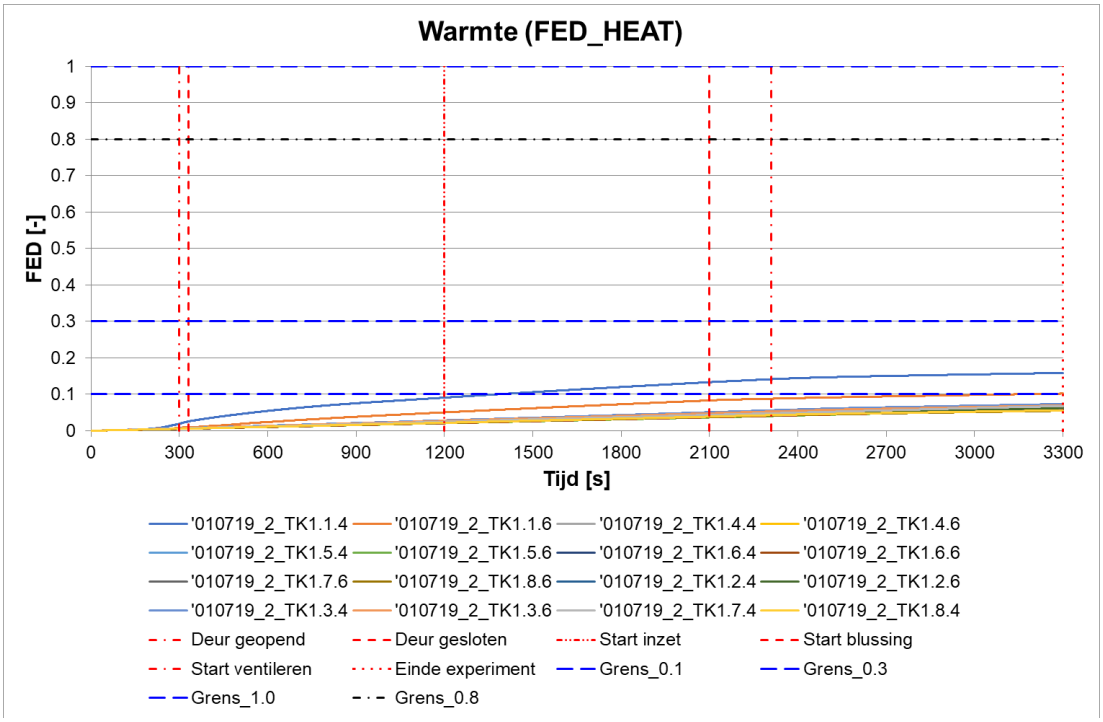


Asphyxiant gases

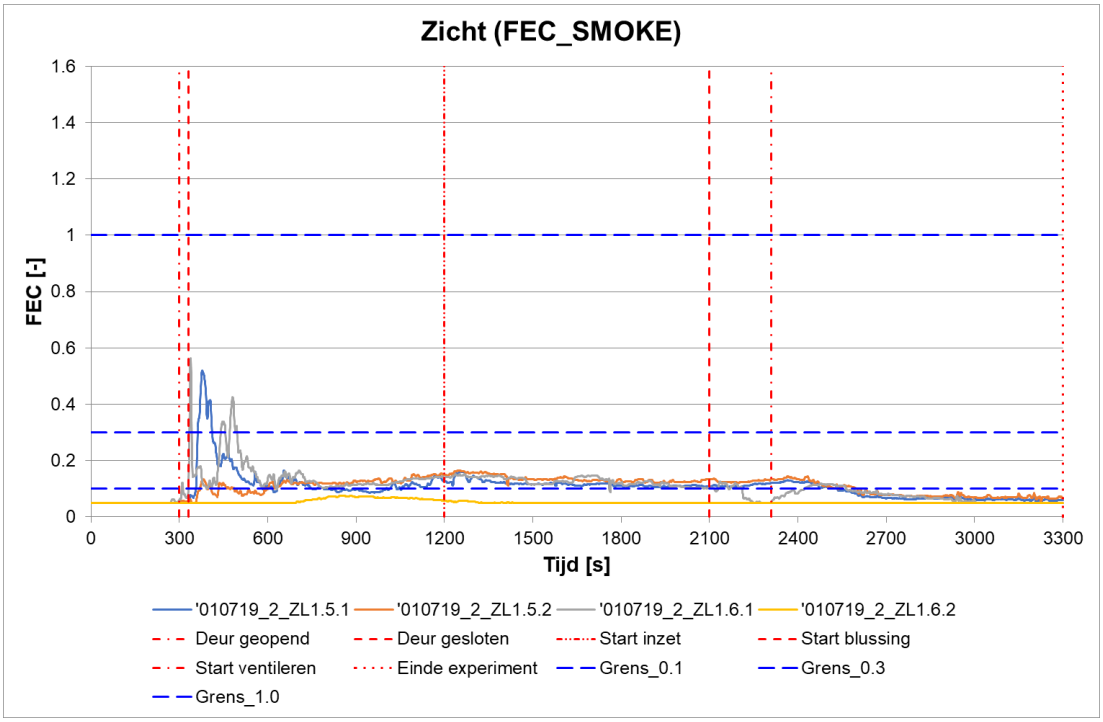




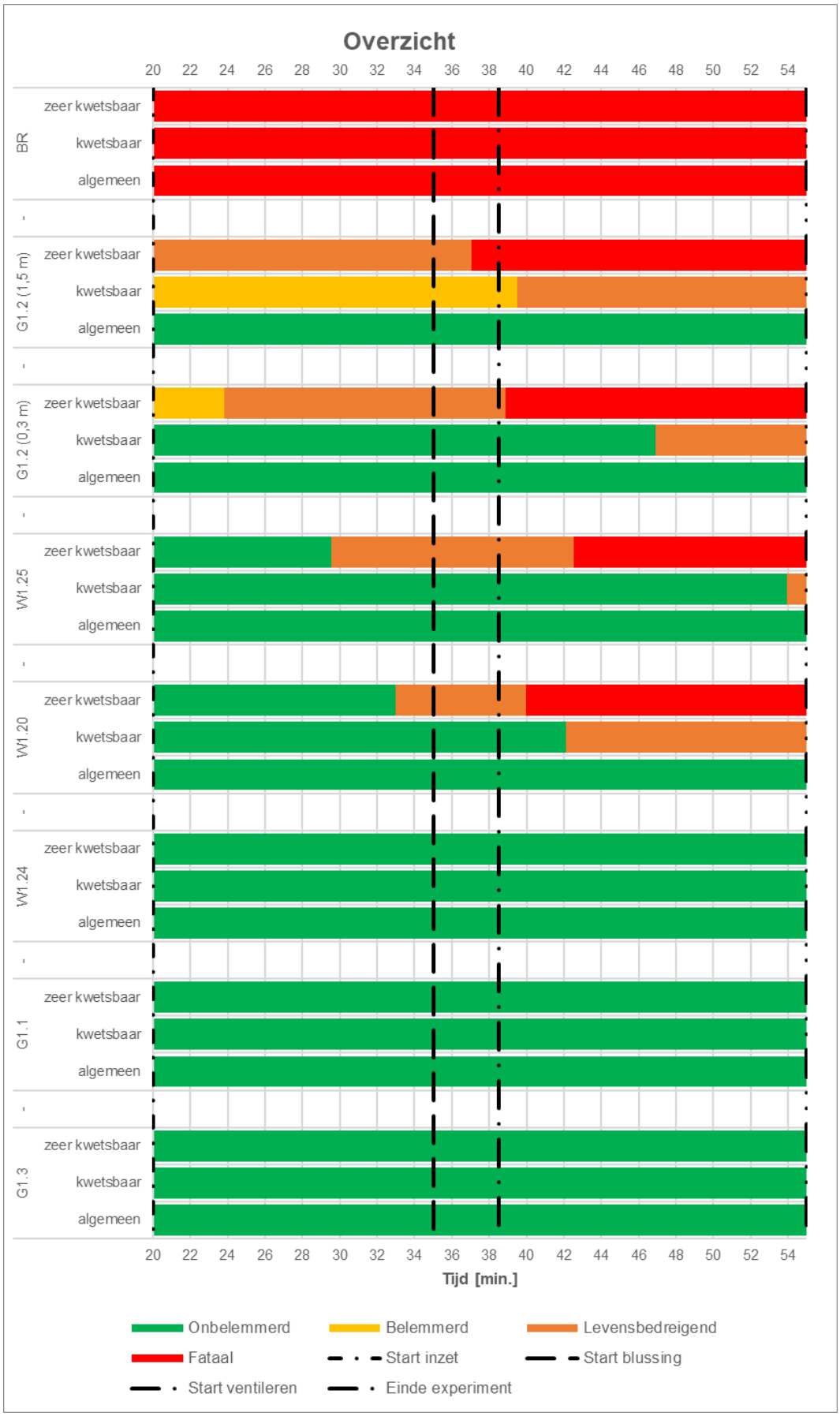
Heat



Visibility



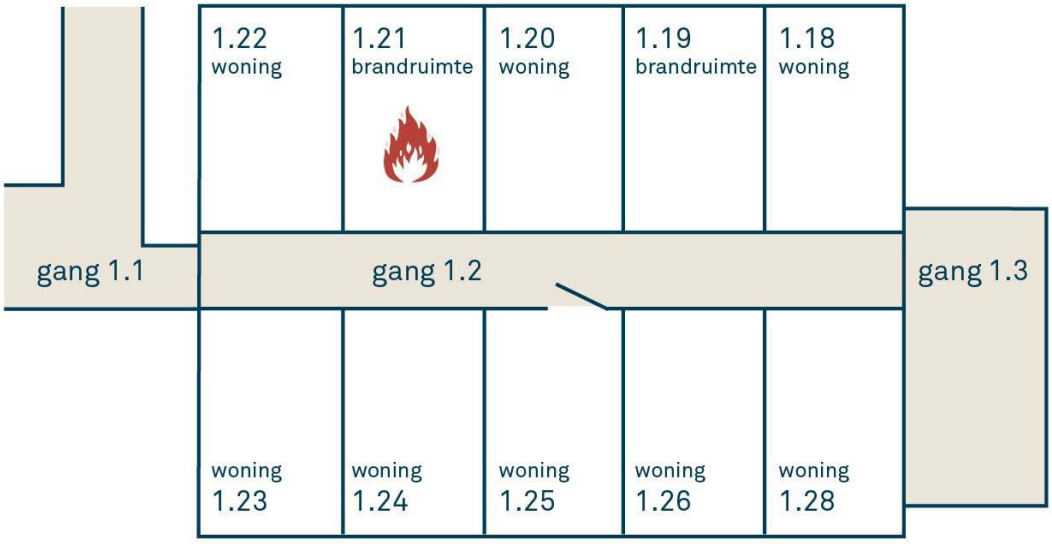
Overview


Overzicht
20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54
BR
G1.2 (1,5 m)
G1.2 (0,3 m)
W1.25
W1.20
W1.24
G1.1
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
-
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Start inzet
Start blussing
Start ventileren
Einde experiment

Test 12 (variant 5: smoke resistant partition and door closed) 02/07/19

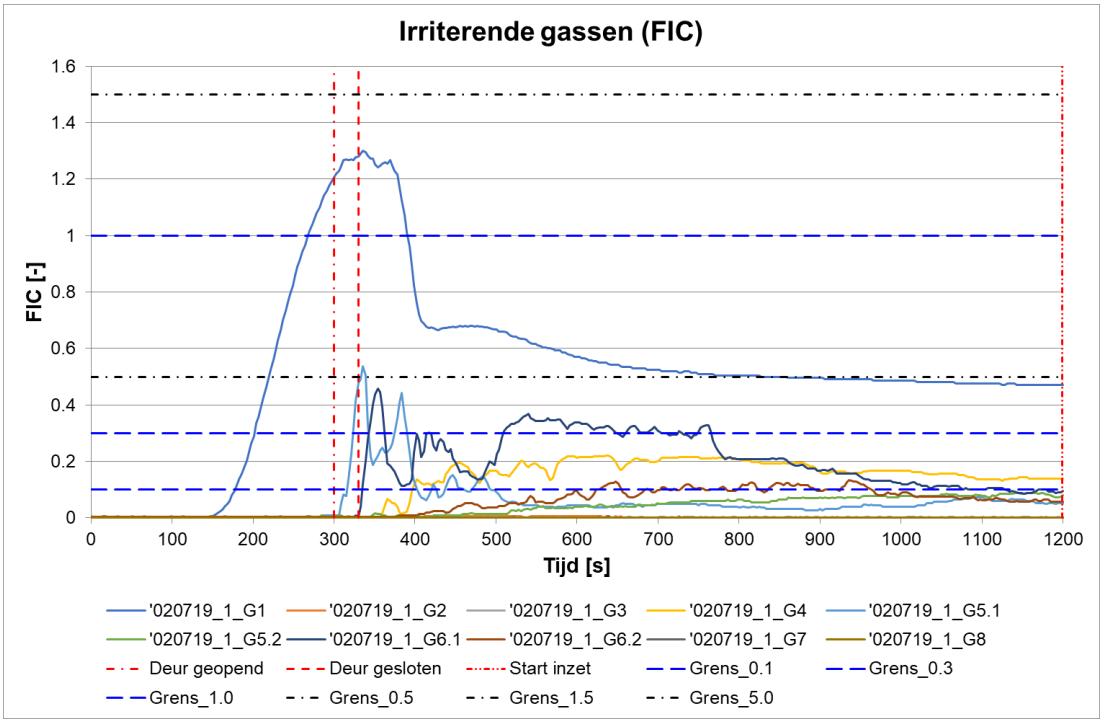
A. Description of the test

Test number	12
Date	02/07/2019
Morning / afternoon	Morning
Fire room	1.21
Door to the fire room open / closed	Closed
Fire service deployment	Offensive interior attack
Extra measures	Smoke-resistant door S200
Specific aspects	At t = 39.5 minutes, residence 1.24 was ventilated instead of residence 1.20 At t = 40.5 minutes, residence 1.20 was ventilated instead of residence 1.24 The deployment crew opened the window in residence 1.25 at approx. 37 minutes and 50 seconds instead of after 43 minutes and 30 seconds. The deployment crew noticed that the windows in residences 1.26 and 1.28 were not fully closed.



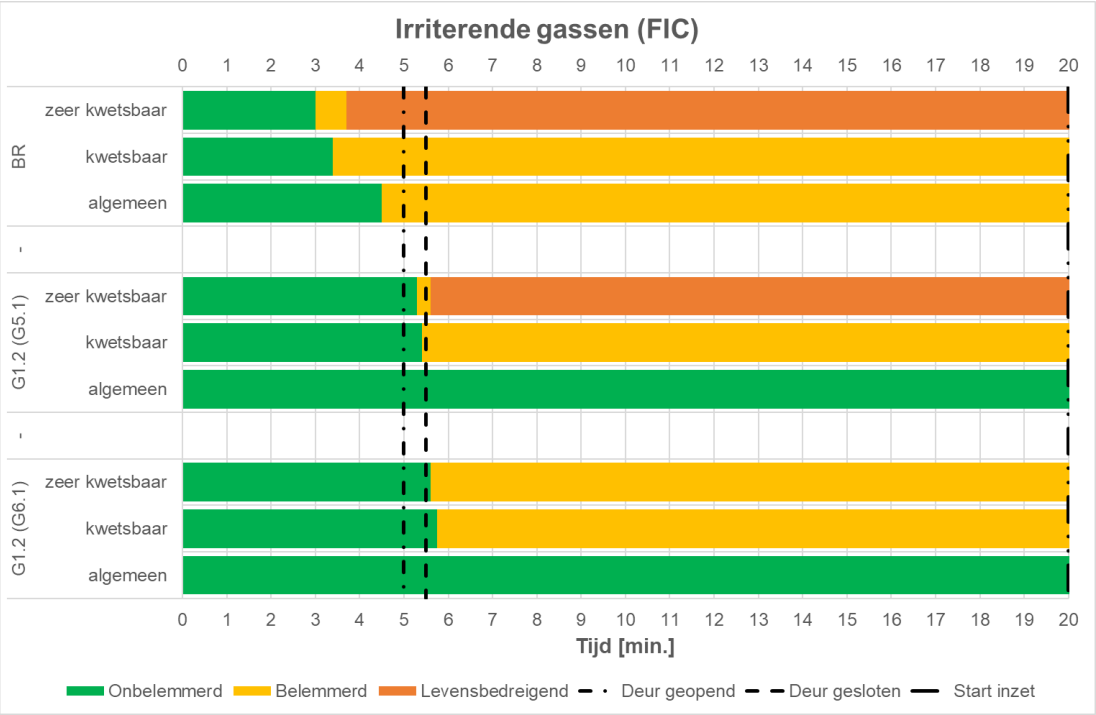
B. Escape phase (0 - 20 minutes)

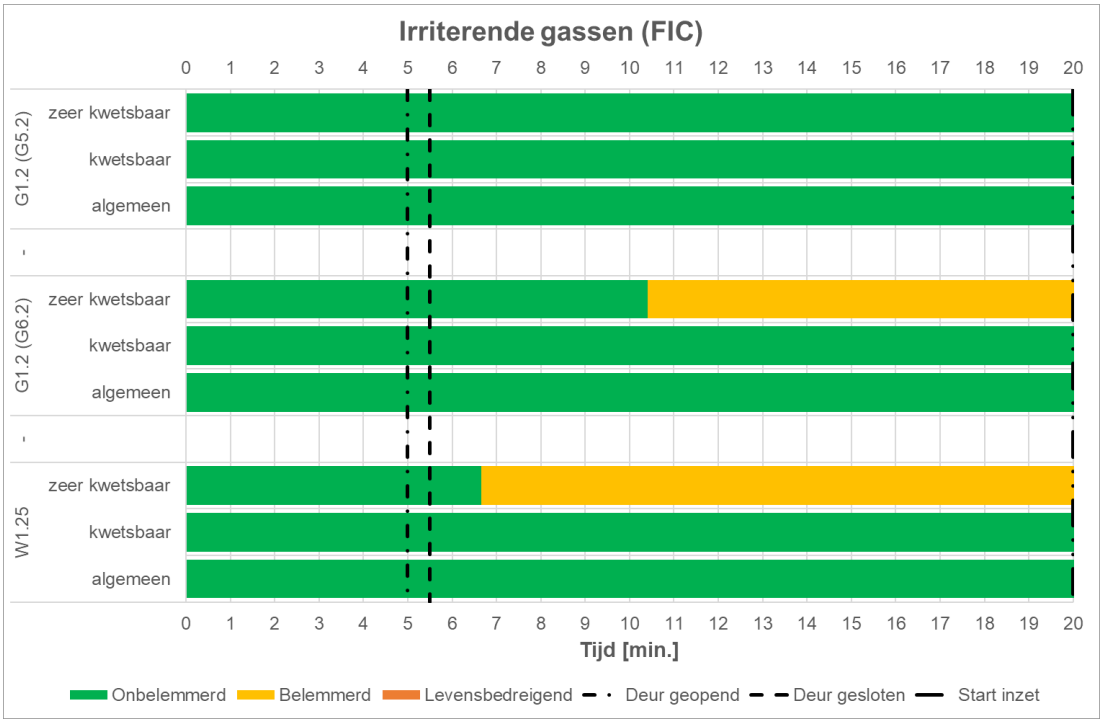
Irritant gases

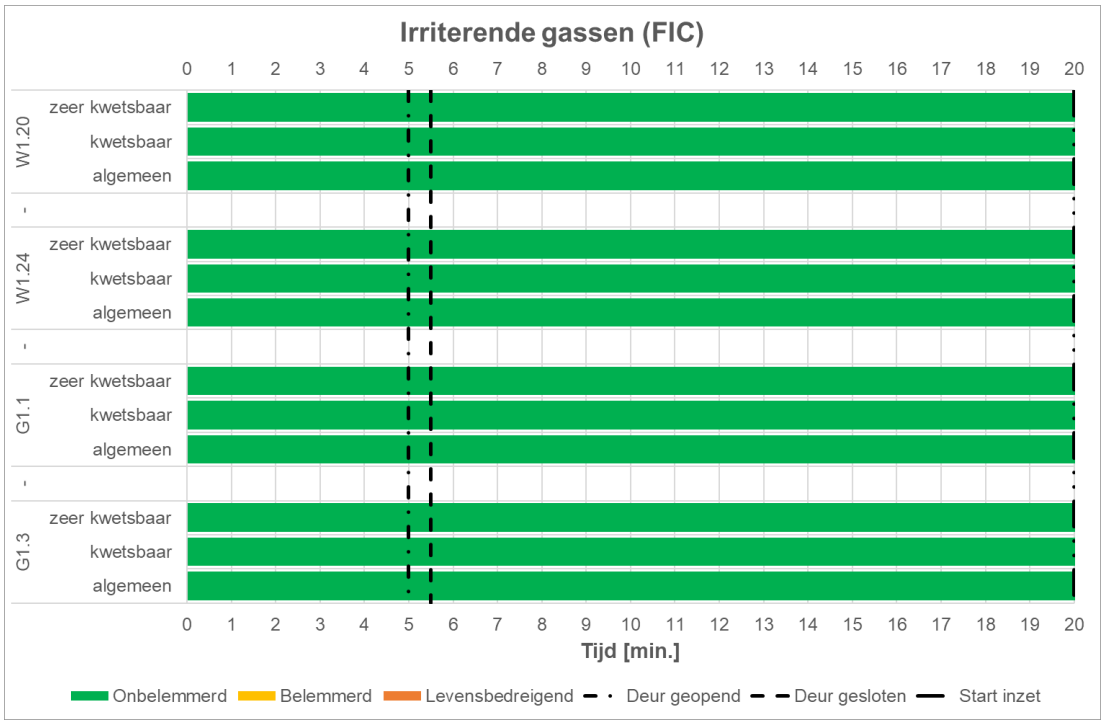


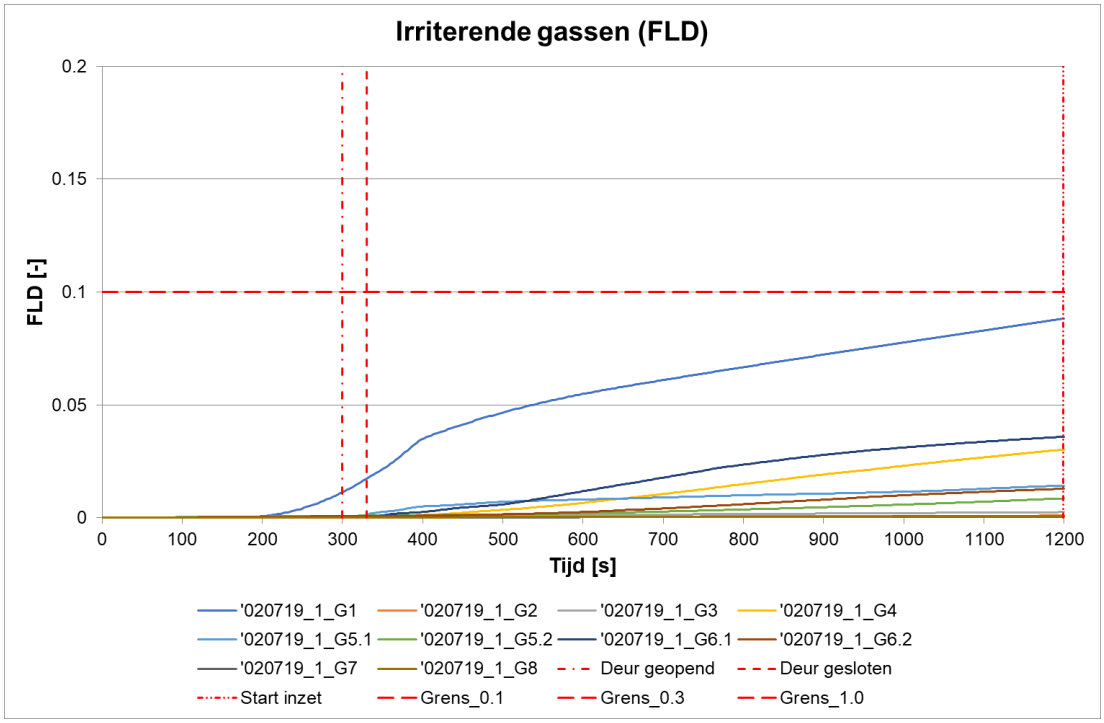
	Irritant gases (FIC)				
	Group	Threshold [-]	Safe [min.]	Impaired [min.]	Life-threatening [min.]
Fire room 1.21 G1	Highly vulnerable	0.1/0.5	3.0	3.7	> 3.7
	Vulnerable	0.3/1.5	3.4	> 55.0	-
	General	1.0/5.0	4.5	> 55.0	-
Residence 1.20 G2	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Residence 1.24 G3	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-

Residence 1.25 G4	Highly vulnerable	0.1/0.5	6.7	> 55.0	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.5	5.3	5.6	> 5.6
	Vulnerable	0.3/1.5	5.4	> 55.0	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.5	5.6	> 55.0	-
	Vulnerable	0.3/1.5	5.8	> 55.0	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.5	10.4	> 55.0	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-


Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G5.1)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.1)
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Deur gesloten
Start inzet

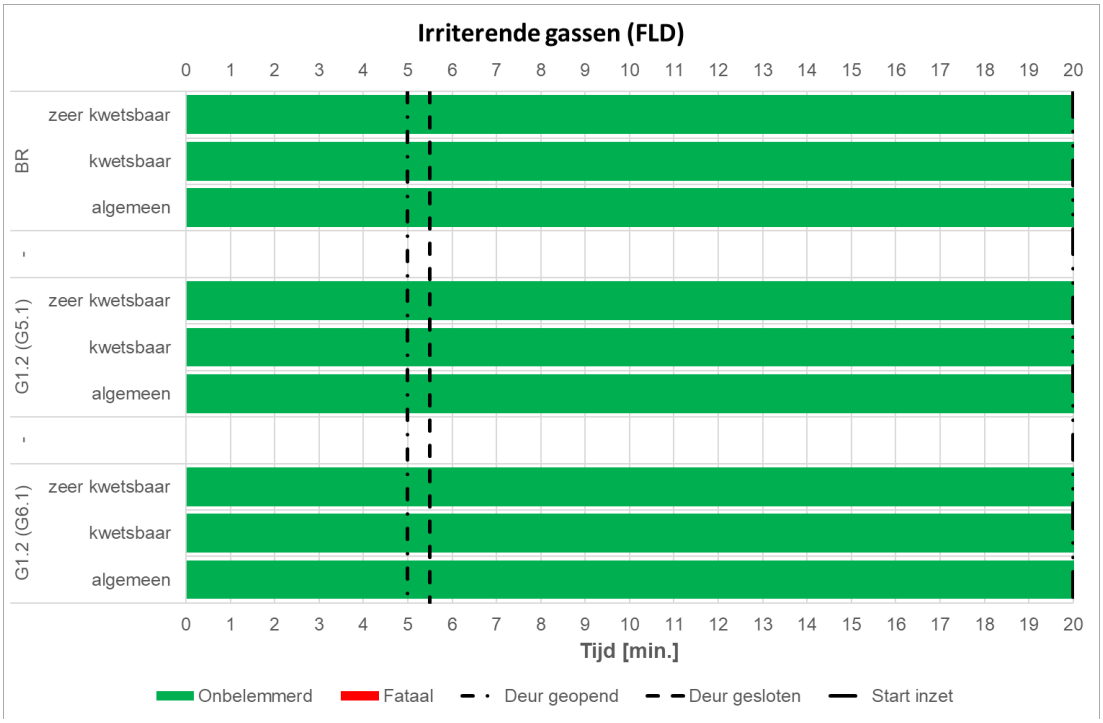

Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Deur gesloten
Start inzet


Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Deur gesloten
Start inzet

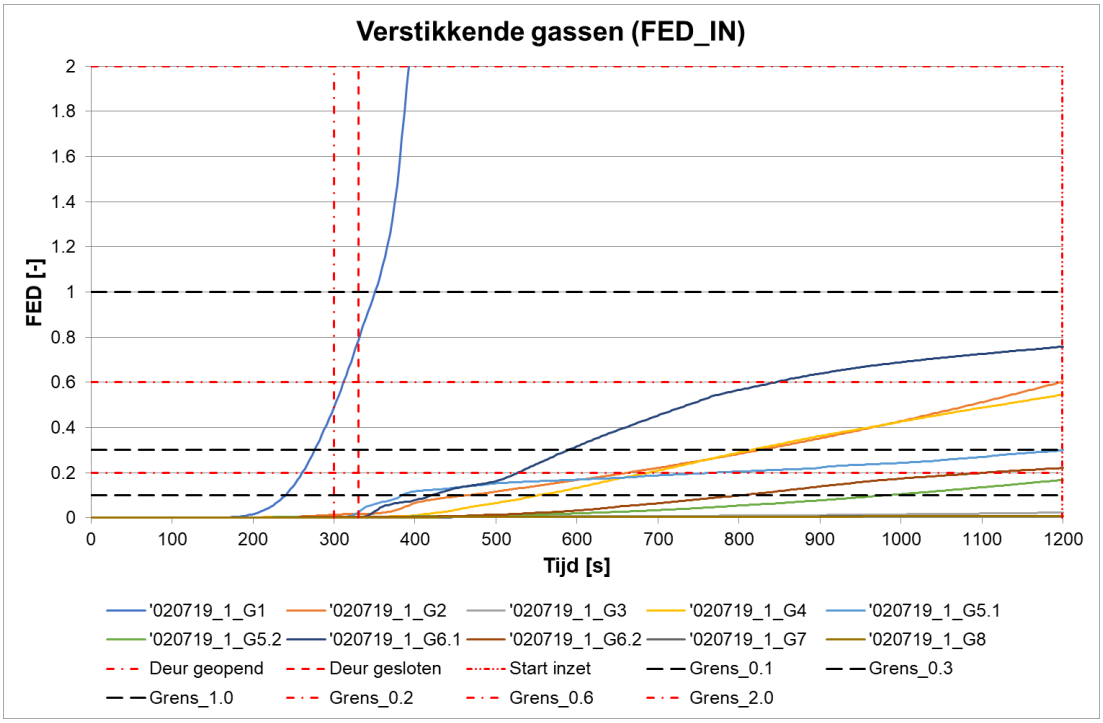

Irriterende gassen (FLD)
FLD [-]
0.2
0.15
0.1
0.05
0
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
Tijd [s]
'020719_1_G1
'020719_1_G2
'020719_1_G3
'020719_1_G4
'020719_1_G5.1
'020719_1_G5.2
'020719_1_G6.1
'020719_1_G6.2
'020719_1_G7
'020719_1_G8
Deur geopend
Deur gesloten
Start inzet
Grens_0.1
Grens_0.3
Grens_1.0

Irritant gases (FLD)				
	Group	Threshold [-]	Safe [min.]	Impaired [min.]
Fire room 1.21 G1	Highly vulnerable	0.1	24.2	> 24.2
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.20 G2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.24 G3	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.25 G4	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G5.1	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G5.2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G6.1	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-

	General	1.0	> 55.0	-
Corridor 1.2 G6.2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.1 G7	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.3 G8	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-

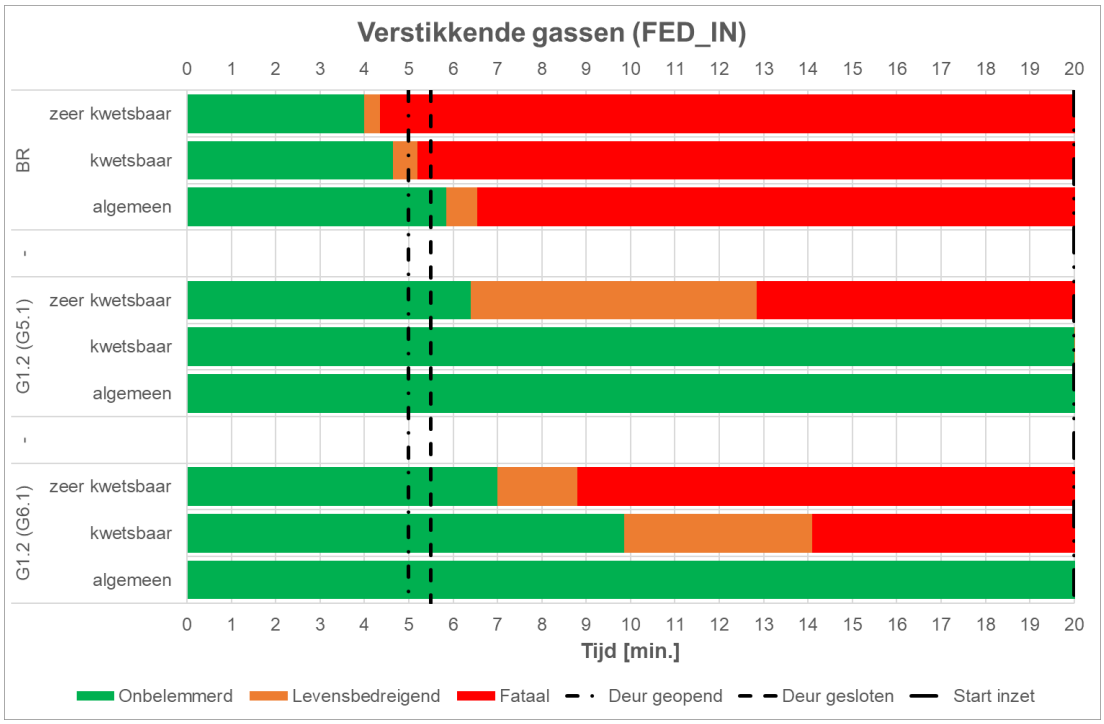


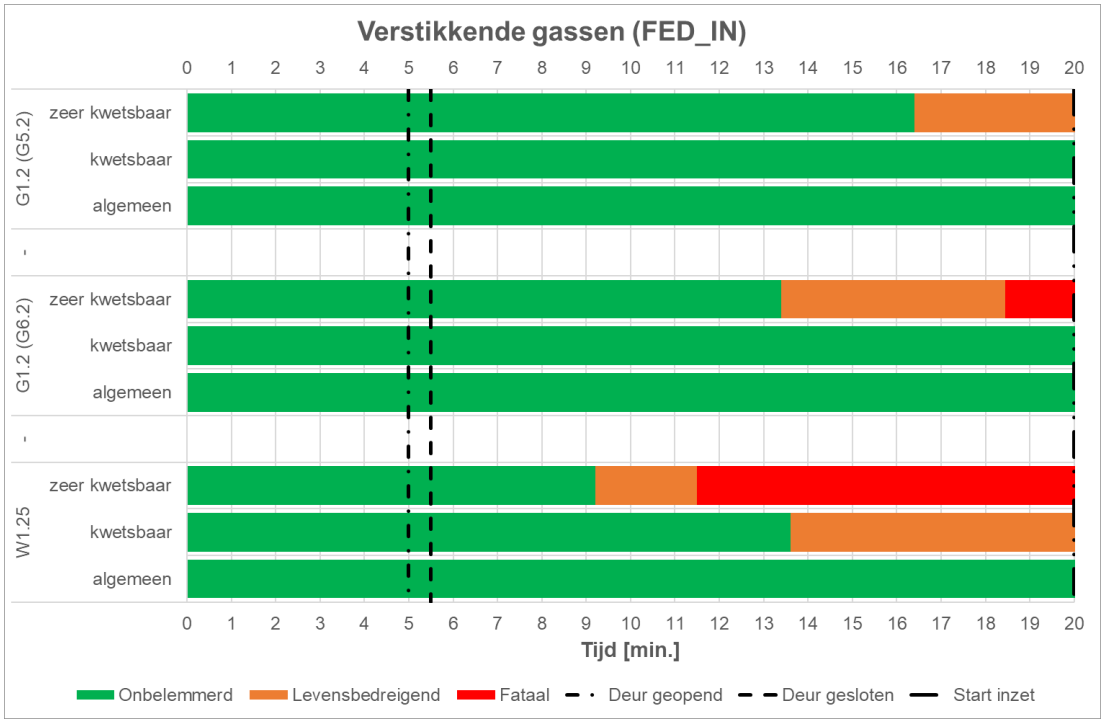
Asphyxiant gases

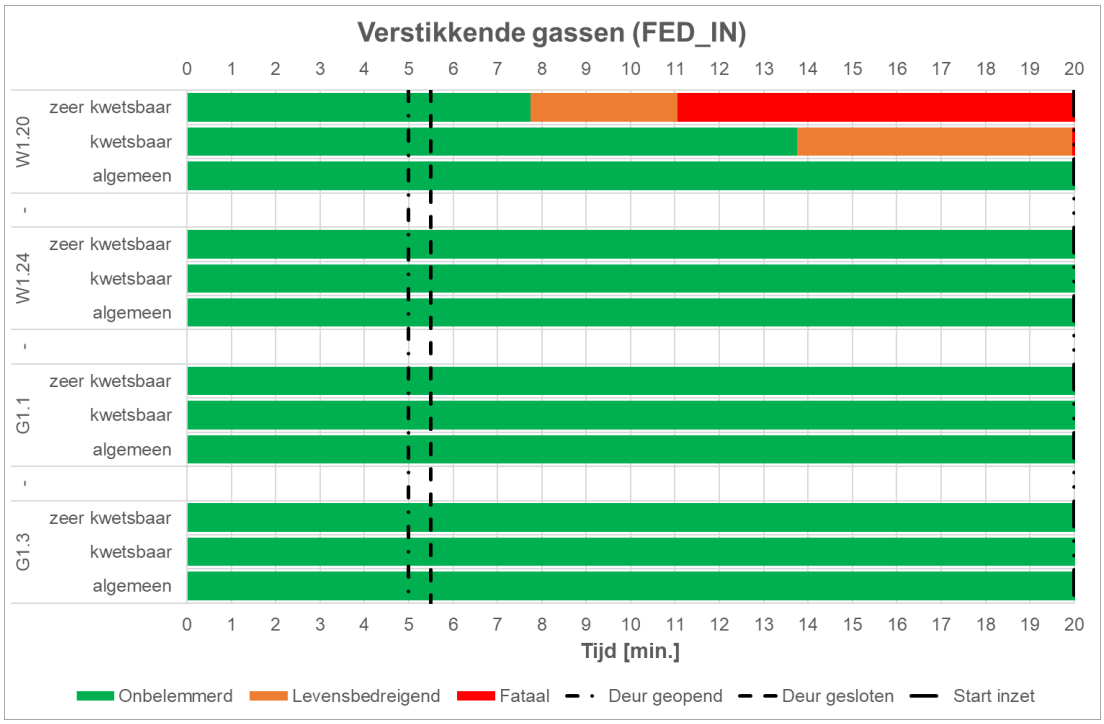


		Asphyxiant gases (FED_IN)			
	Group	Threshold [-]	Safe [min.]	Life-threatening [min.]	Fatal [min.]
Fire room 1.21 G1	Highly vulnerable	0.1/0.2	4.0	4.4	> 4.4
	Vulnerable	0.3/0.6	4.7	5.2	> 5.2
	General	1.0/2.0	5.9	6.6	> 6.6
Residence 1.20 G2	Highly vulnerable	0.1/0.2	7.8	11.1	> 11.1
	Vulnerable	0.3/0.6	13.8	20.0	> 20.0
	General	1.0/2.0	25.7	29.3	> 29.3
Residence 1.24 G3	Highly vulnerable	0.1/0.2	26.4	27.7	> 27.7
	Vulnerable	0.3/0.6	28.6	30.2	> 30.2
	General	1.0/2.0	31.4	40.9	> 40.9
Residence 1.25	Highly vulnerable	0.1/0.2	9.2	11.5	> 11.5

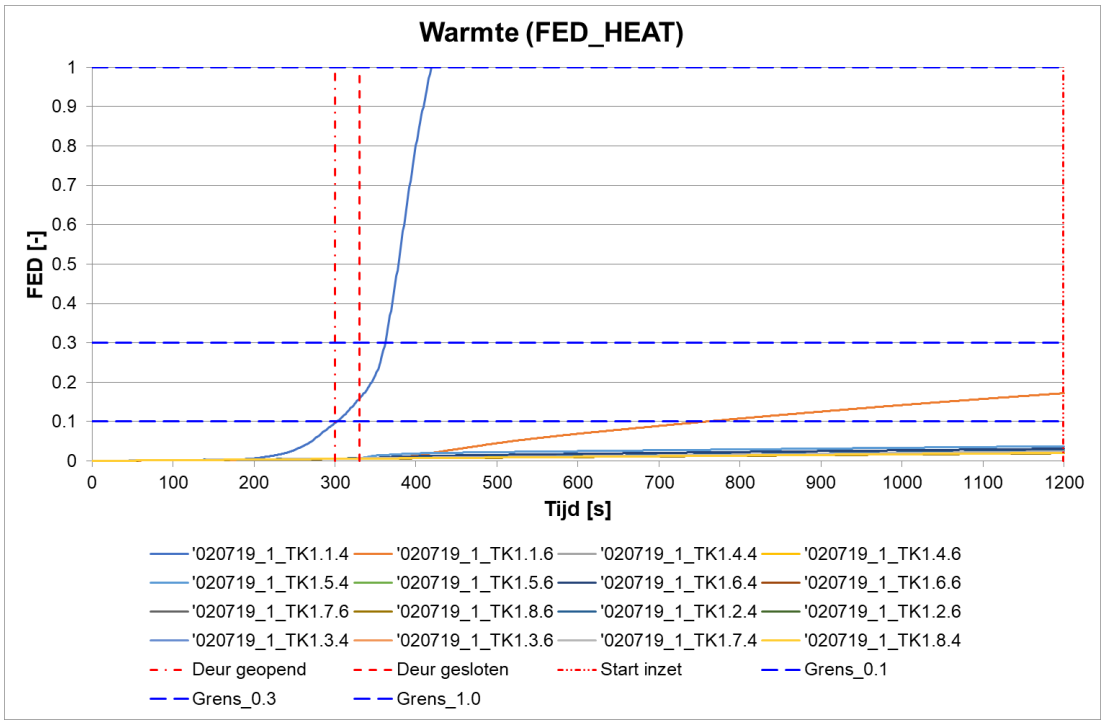
G4	Vulnerable	0.3/0.6	13.6	21.6	> 21.6
	General	1.0/2.0	25.2	26.8	> 26.8
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.2	6.4	12.9	> 12.9
	Vulnerable	0.3/0.6	20.0	23.2	> 23.2
	General	1.0/2.0	26.1	30.4	> 30.4
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.2	16.4	21.7	> 21.7
	Vulnerable	0.3/0.6	24.5	27.1	> 27.1
	General	1.0/2.0	29.5	32.6	> 32.6
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.2	7.0	8.8	> 8.8
	Vulnerable	0.3/0.6	9.9	14.1	> 14.1
	General	1.0/2.0	23.8	24.6	> 24.6
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.2	13.4	18.5	> 18.5
	Vulnerable	0.3/0.6	23.5	24.1	> 24.1
	General	1.0/2.0	25.2	26.2	> 26.2
Corridor 1.1 G7	Highly vulnerable	0.1/0.2	28.9	30.5	> 30.5
	Vulnerable	0.3/0.6	31.8	35.3	> 35.3
	General	1.0/2.0	39.8	50.9	> 50.9
Corridor 1.3 G8	Highly vulnerable	0.1/0.2	27.8	29.3	> 29.3
	Vulnerable	0.3/0.6	33.4	41.2	> 41.2
	General	1.0/2.0	53.4	> 55.0	-


Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G5.1)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.1)
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet


Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

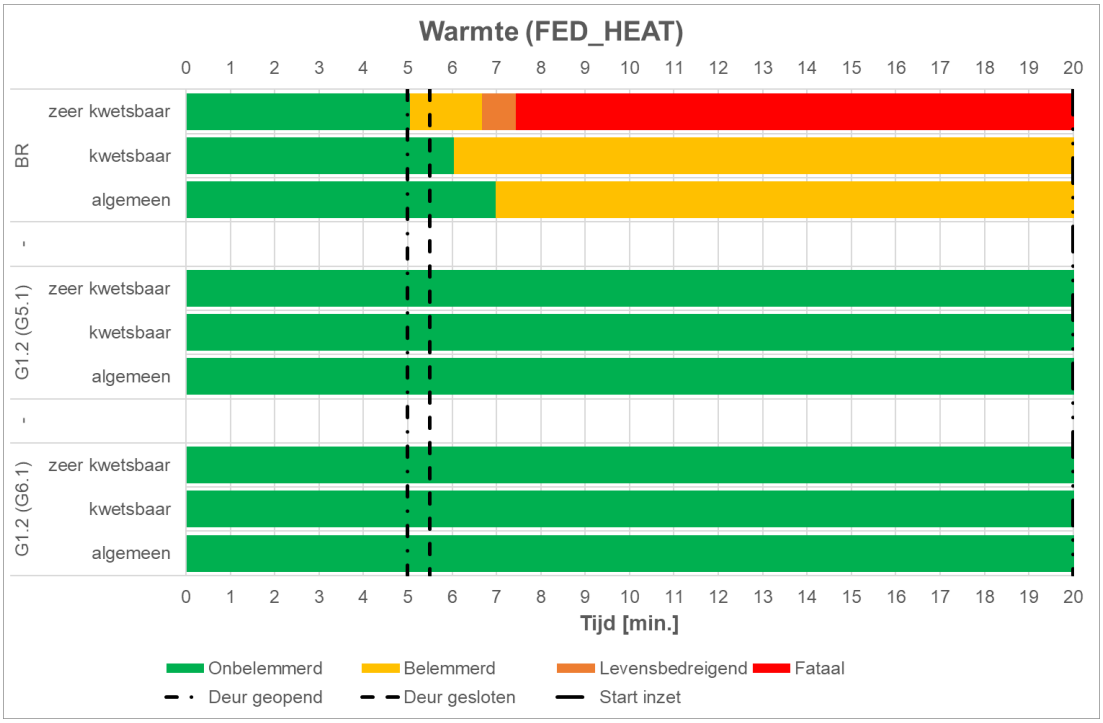

Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

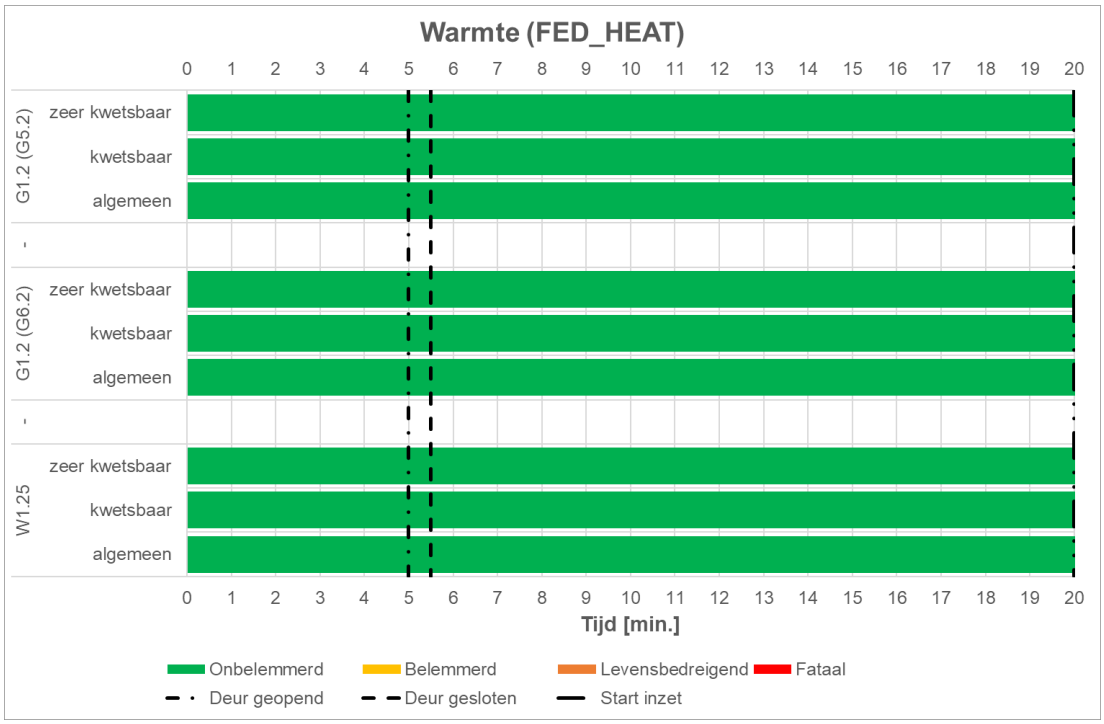
Heat

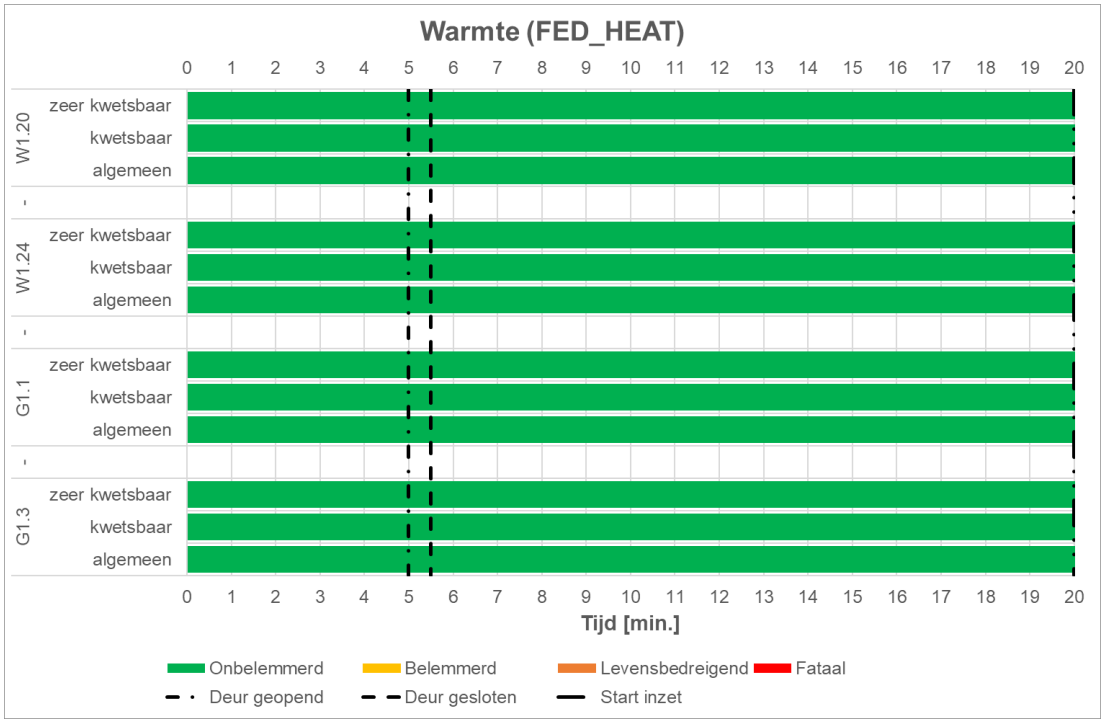

Warmte (FED_HEAT)
FED [-]
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
Tijd [s]
'020719_1_TK1.1.4
'020719_1_TK1.1.6
'020719_1_TK1.4.4
'020719_1_TK1.4.6
'020719_1_TK1.5.4
'020719_1_TK1.5.6
'020719_1_TK1.6.4
'020719_1_TK1.6.6
'020719_1_TK1.7.6
'020719_1_TK1.8.6
'020719_1_TK1.2.4
'020719_1_TK1.2.6
'020719_1_TK1.3.4
'020719_1_TK1.3.6
'020719_1_TK1.7.4
'020719_1_TK1.8.4
Deur geopend
Deur gesloten
Start inzet
Grens_0.1
Grens_0.3
Grens_1.0

Heat (FED_HEAT)						
	Group	Threshold [-]	Safe [min.]	Impaired [min.]	Life-threatening [min.]	Fatal [min.
Fire room 1.21 G1	Highly vulnerable	0.1/0.8/1.2	5.1	6.7	7.4	> 7.4
	Vulnerable	0.3/2.4/12.0	6.0	20.6	> 55.0	-
	General	1.0/8.0/12.0	7.0	> 55.0	-	-
Residence 1.20 G2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Residence 1.24 G3	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Residence 1.25 G4	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-

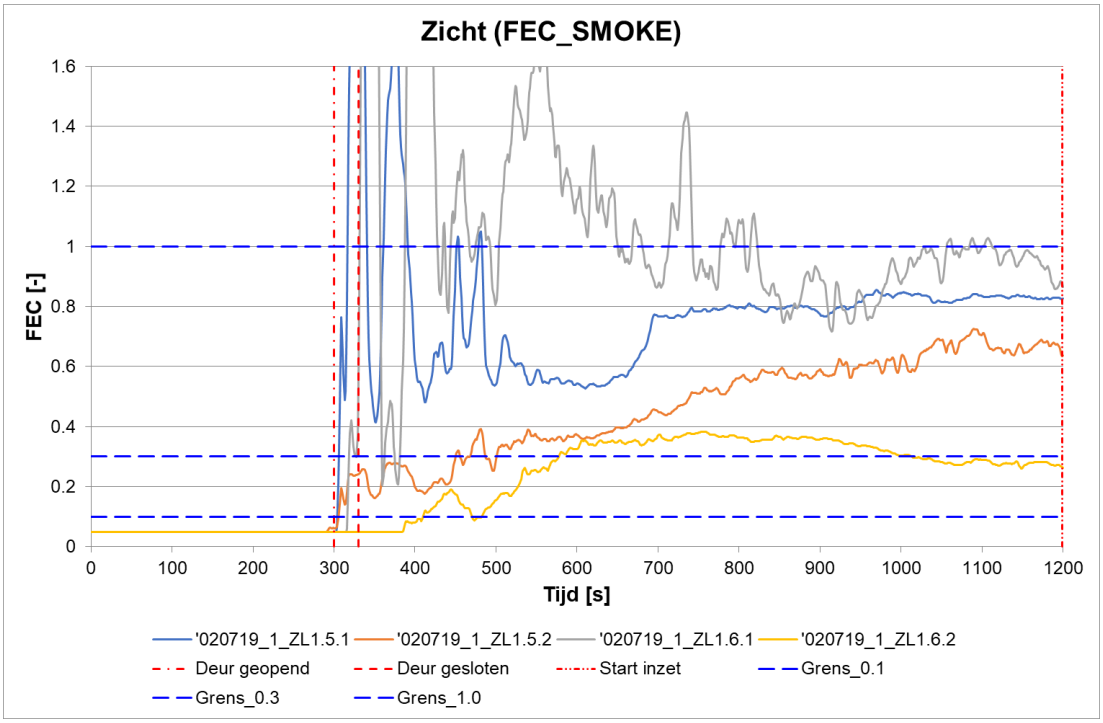
G6.1	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-




Warmte (FED_HEAT)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

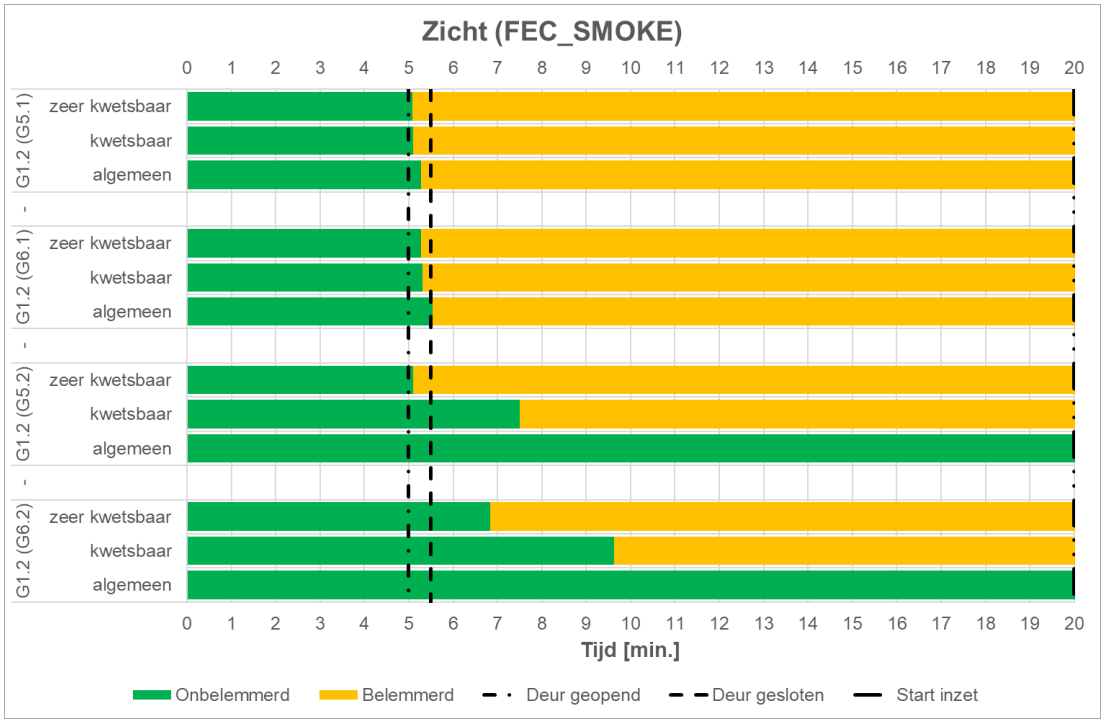

Warmte (FED_HEAT)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

Visibility

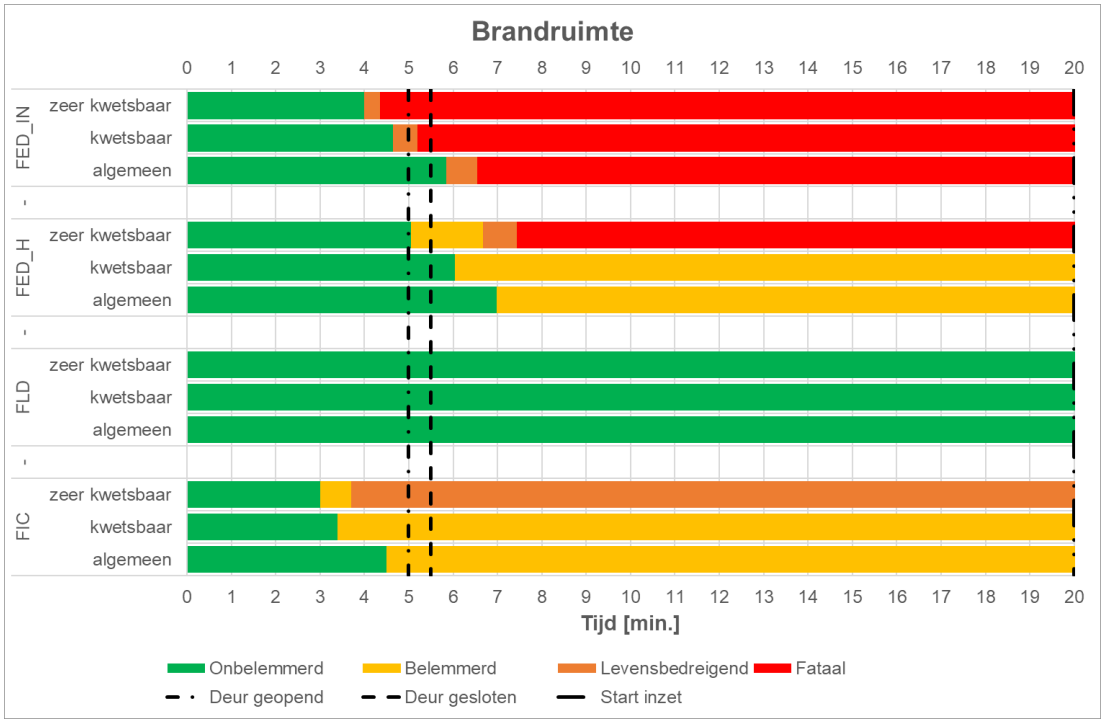


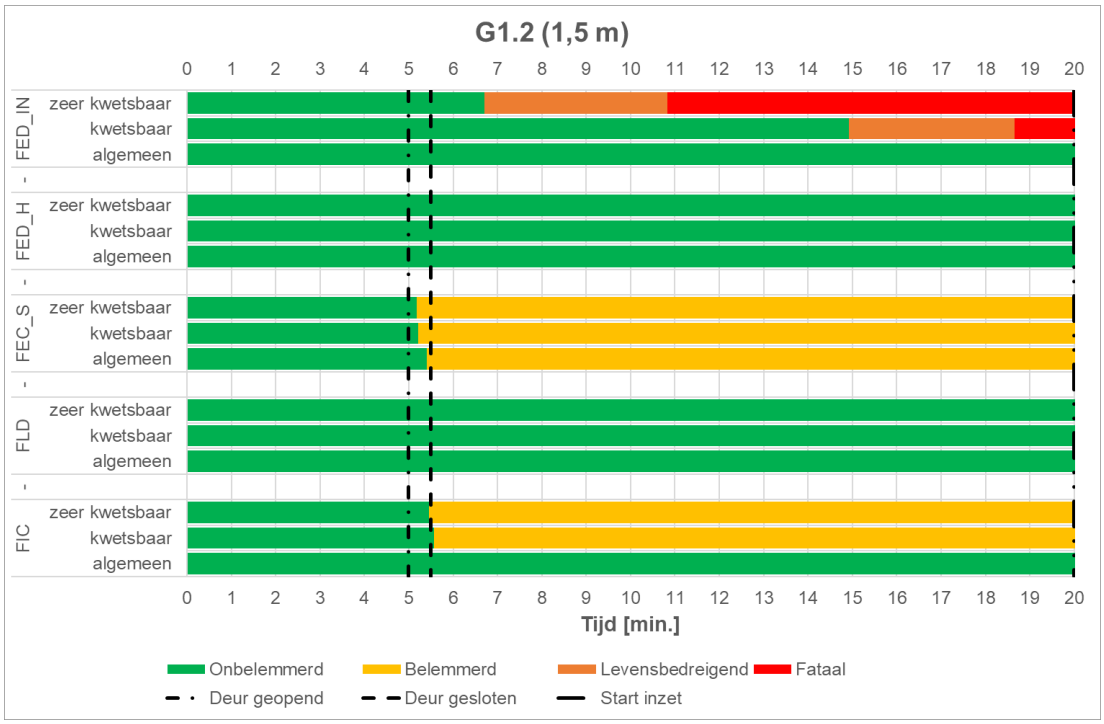
Visibility (FEC_SMOKE)				
	Group	Threshold [-]	Safe [min.]	Impaired [min.]
Corridor 1.2 G5.1	Highly vulnerable	0.1	5.1	> 5.1
	Vulnerable	0.3	5.1	> 5.1
	General	1.0	5.3	> 5.3
Corridor 1.2 G5.2	Highly vulnerable	0.1	5.1	> 5.1
	Vulnerable	0.3	7.5	> 7.5
	General	1.0	23.4	> 23.4
Corridor 1.2 G6.1	Highly vulnerable	0.1	5.3	> 5.3
	Vulnerable	0.3	5.3	> 5.3
	General	1.0	5.5	> 5.5

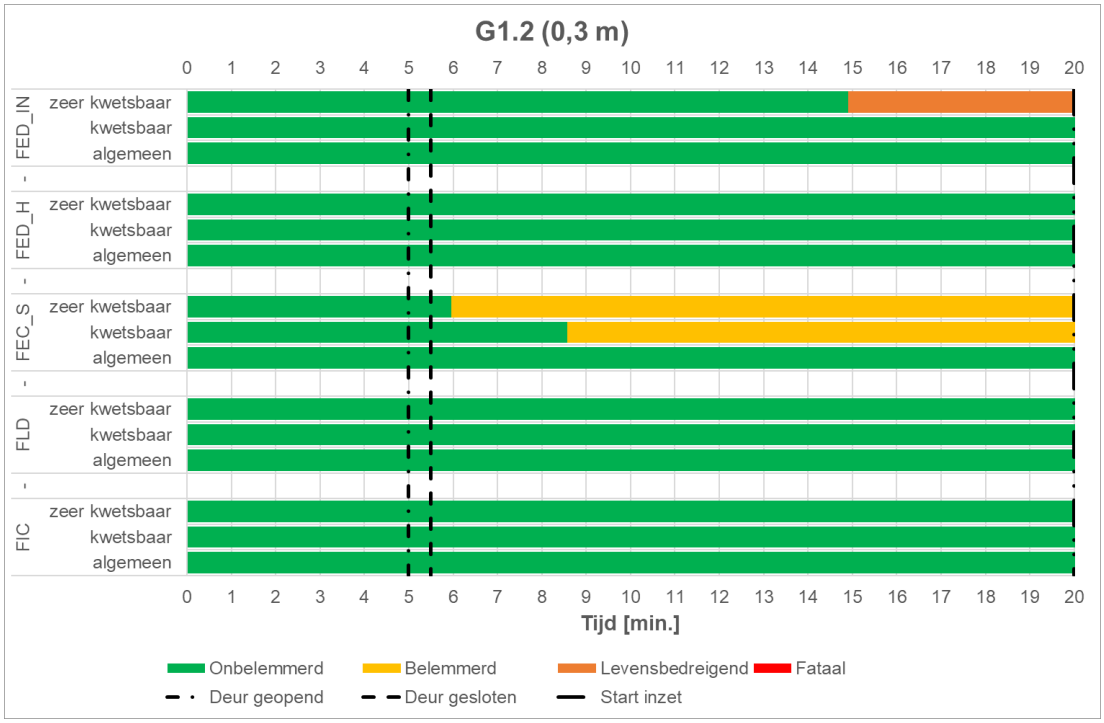
Corridor 1.2 G6.2	Highly vulnerable	0.1	6.8	> 6.8
	Vulnerable	0.3	9.6	> 9.6
	General	1.0	26.3	> 26.3



Overview

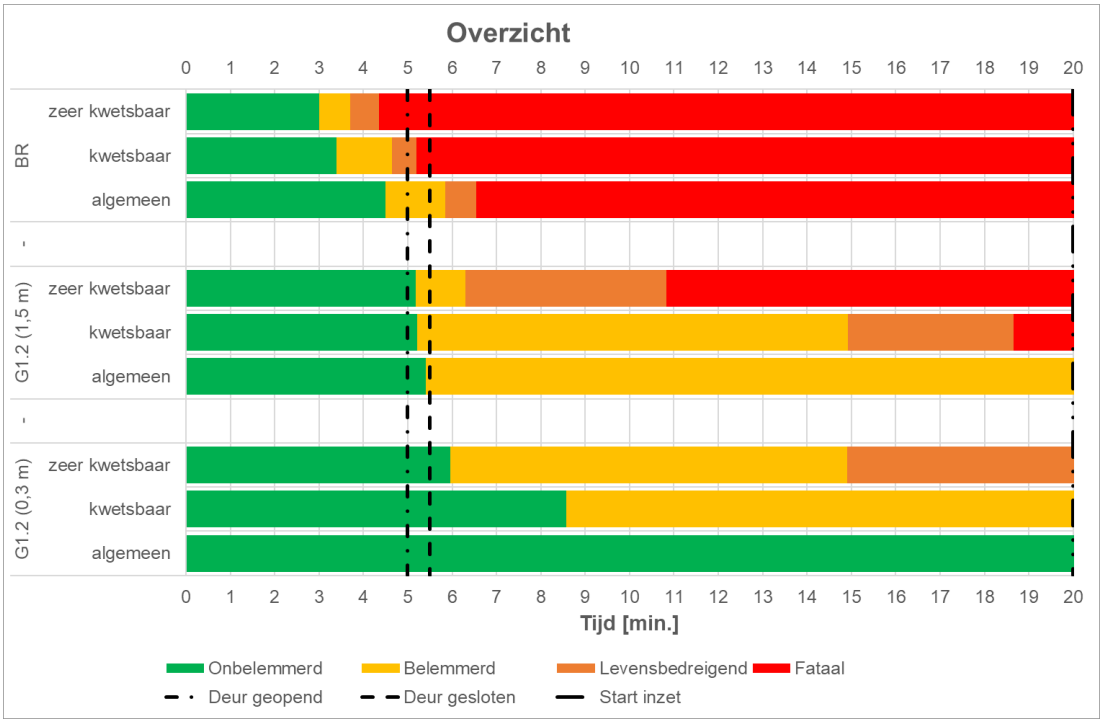


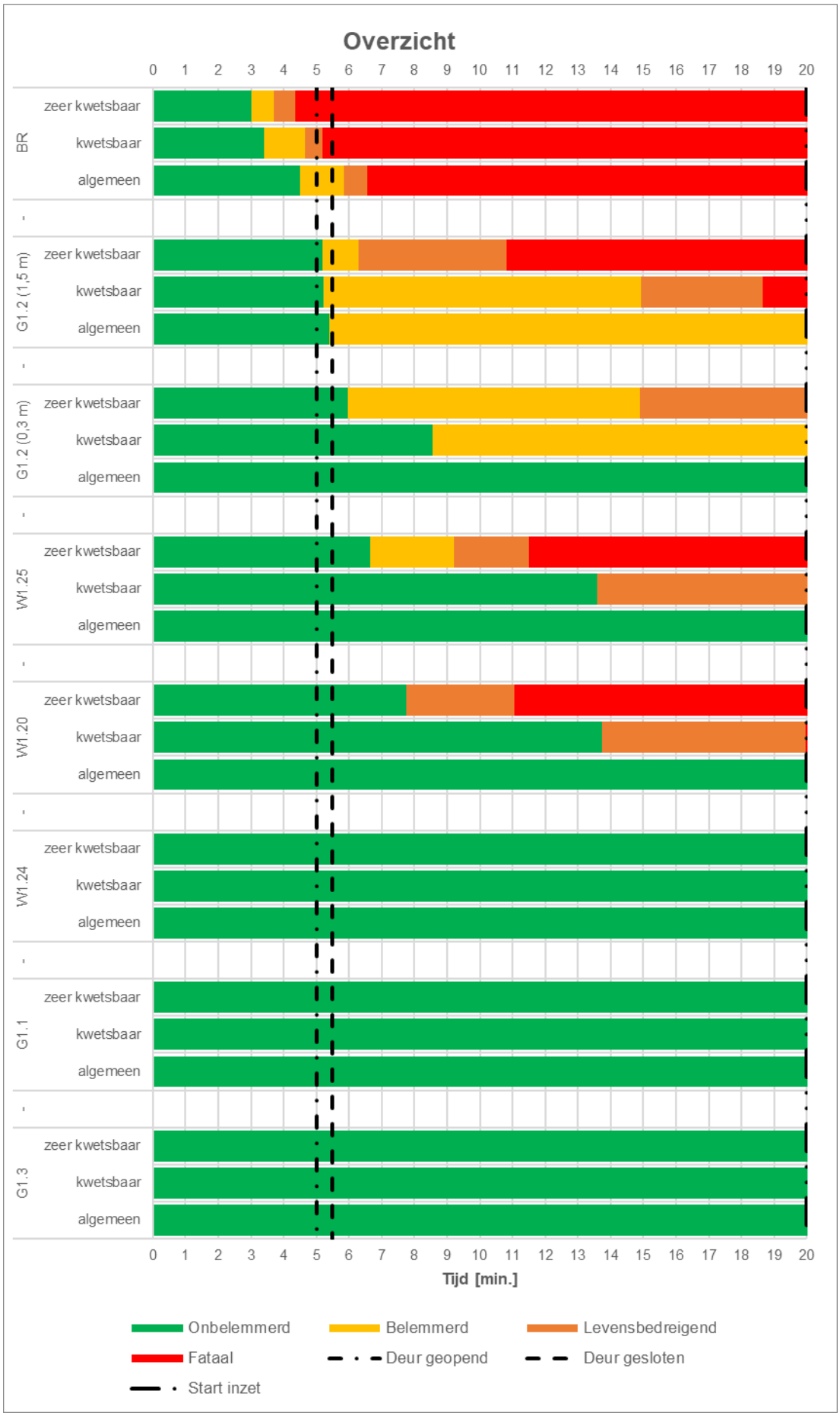

G1.2 (1,5 m)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
FED_IN
FED_H
FEC_S
FLD
FIC
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet


G1.2 (0,3 m)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
FED_IN
FED_H
FEC_S
FLD
FIC
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

	Overview	Escape		Survivability	
	Group	Safe [min.]	Impaired [min.]	Life-threatening [min.]	Fatal [min.]
Fire room 1.21 G1	Highly vulnerable	3.0	3.7	4.4	> 4.4
	Vulnerable	3.4	4.7	5.2	> 5.2
	General	4.5	5.9	6.6	> 6.6
Residence 1.20 G2	Highly vulnerable	7.8	7.8	11.1	> 11.1
	Vulnerable	13.8	13.8	20.0	> 20.0
	General	25.7	25.7	29.3	> 29.3
Residence 1.24 G3	Highly vulnerable	26.4	26.4	27.7	> 27.7
	Vulnerable	28.6	28.6	30.2	> 30.2
	General	31.4	31.4	40.9	> 40.9
Residence 1.25 G4	Highly vulnerable	6.7	9.2	11.5	> 11.5
	Vulnerable	13.6	13.6	21.6	> 21.6
	General	25.2	25.2	26.8	> 26.8
Corridor 1.2 G5.1	Highly vulnerable	5.1	5.6	12.9	> 12.9
	Vulnerable	5.1	20.0	23.2	> 23.2
	General	5.3	26.1	30.4	> 30.4
Corridor 1.2 G5.2	Highly vulnerable	5.1	16.4	21.7	> 21.7
	Vulnerable	7.5	24.5	27.1	> 27.1
	General	23.4	29.5	32.6	> 32.6
Corridor 1.2	Highly vulnerable	5.3	7.0	8.8	> 8.8

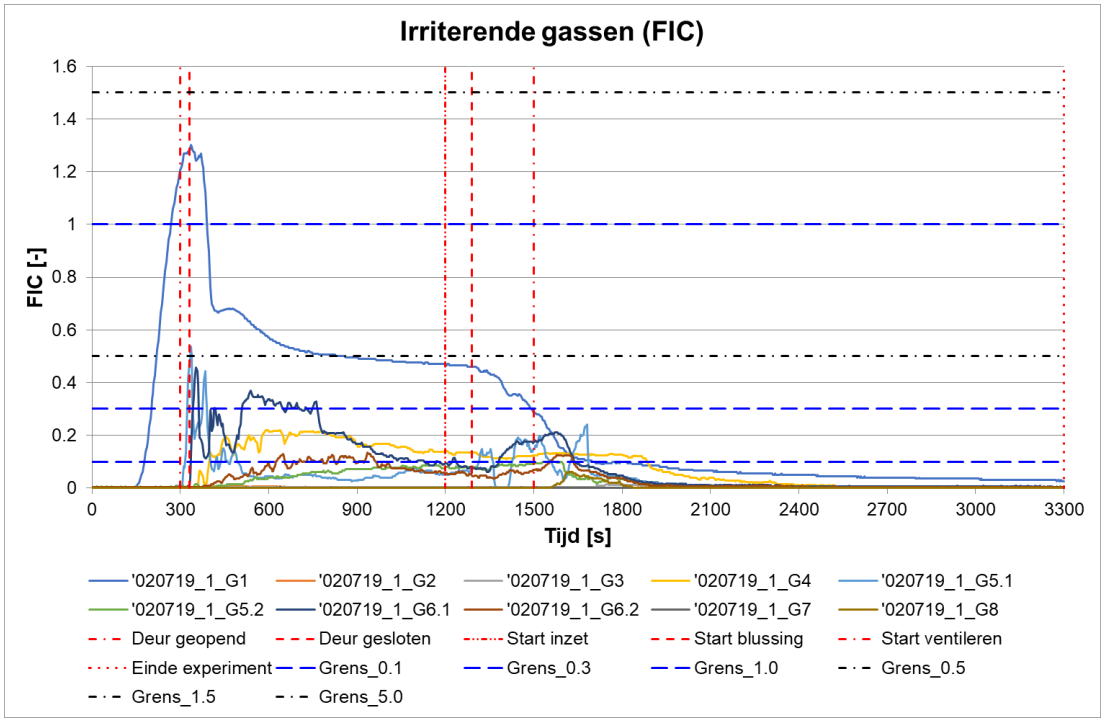
G6.1	Vulnerable	5.3	9.9	14.1	> 14.1
	General	5.5	23.8	24.6	> 24.6
Corridor 1.2 G6.2	Highly vulnerable	6.8	13.4	18.5	> 18.5
	Vulnerable	9.6	23.5	24.1	> 24.1
	General	25.2	25.2	26.2	> 26.2
Corridor 1.1 G7	Highly vulnerable	28.9	28.9	30.5	> 30.5
	Vulnerable	31.8	31.8	35.3	> 35.3
	General	39.8	39.8	50.9	> 50.9
Corridor 1.3 G8	Highly vulnerable	27.8	27.8	29.3	> 29.3
	Vulnerable	33.4	33.4	41.2	> 41.2
	General	53.4	53.4	> 55.0	-

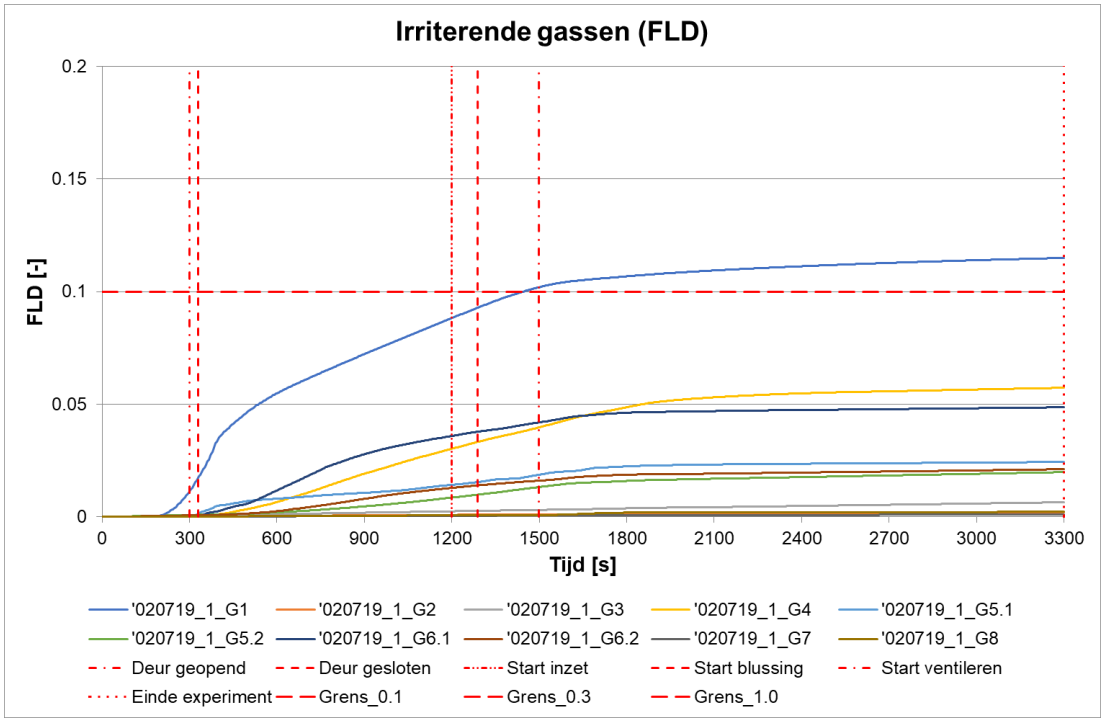



Overzicht
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (1,5 m)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (0,3 m)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

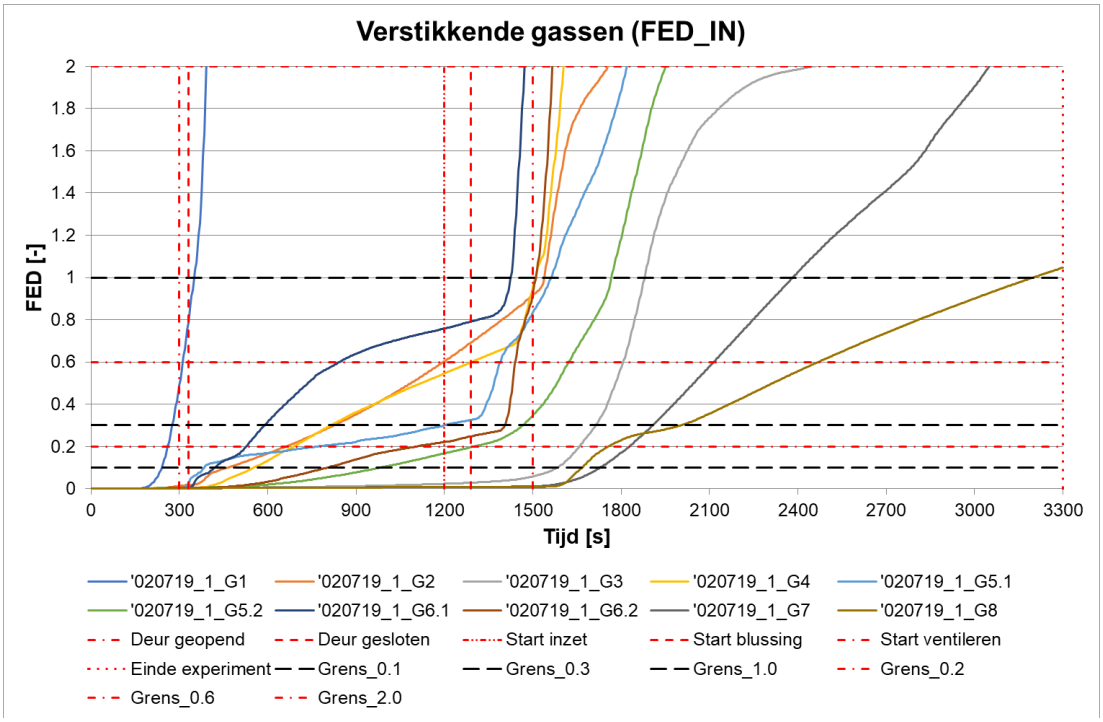
C. Deployment phase (20 - 55 minutes)

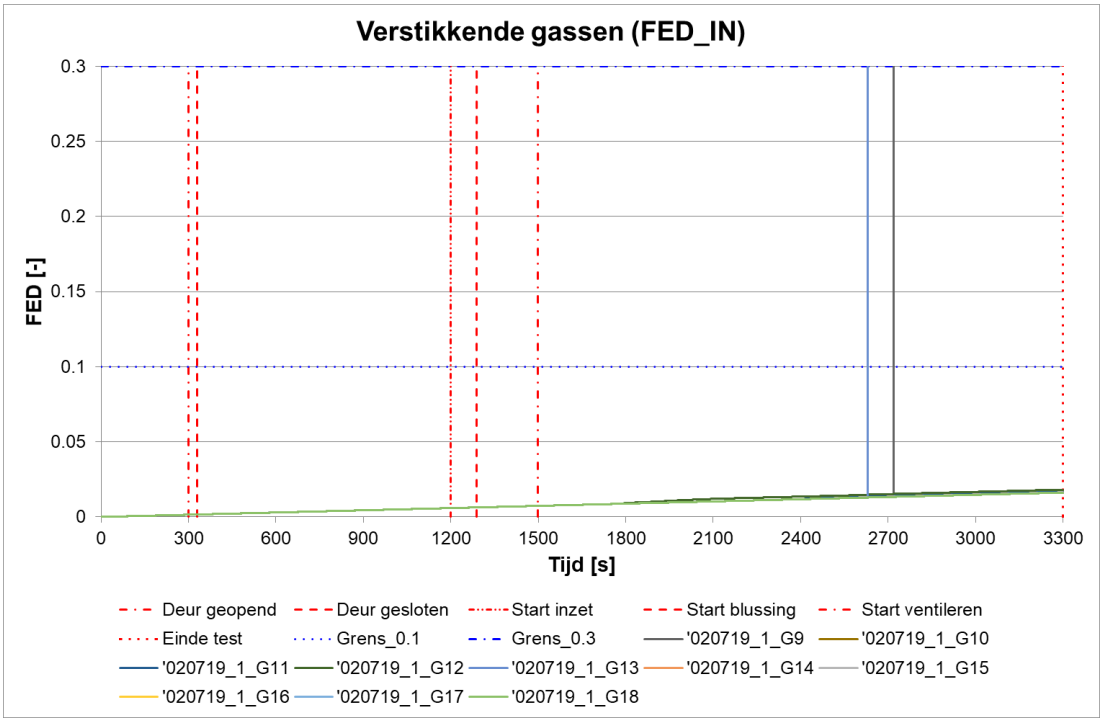
Irritant gases



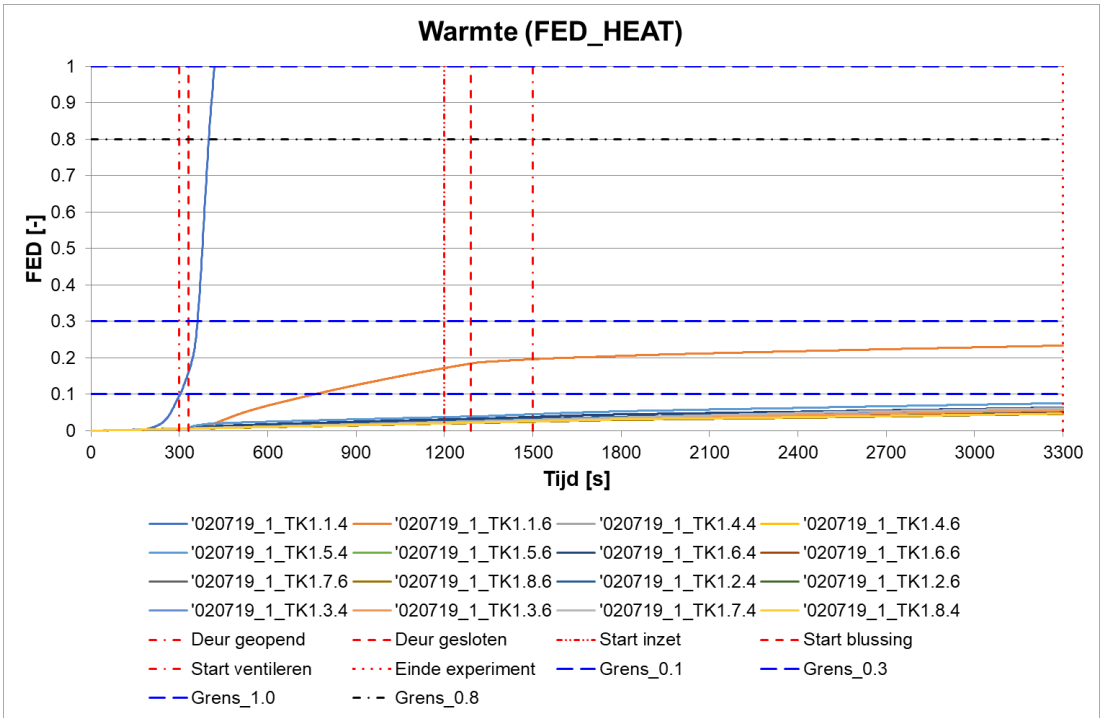


Asphyxiant gases

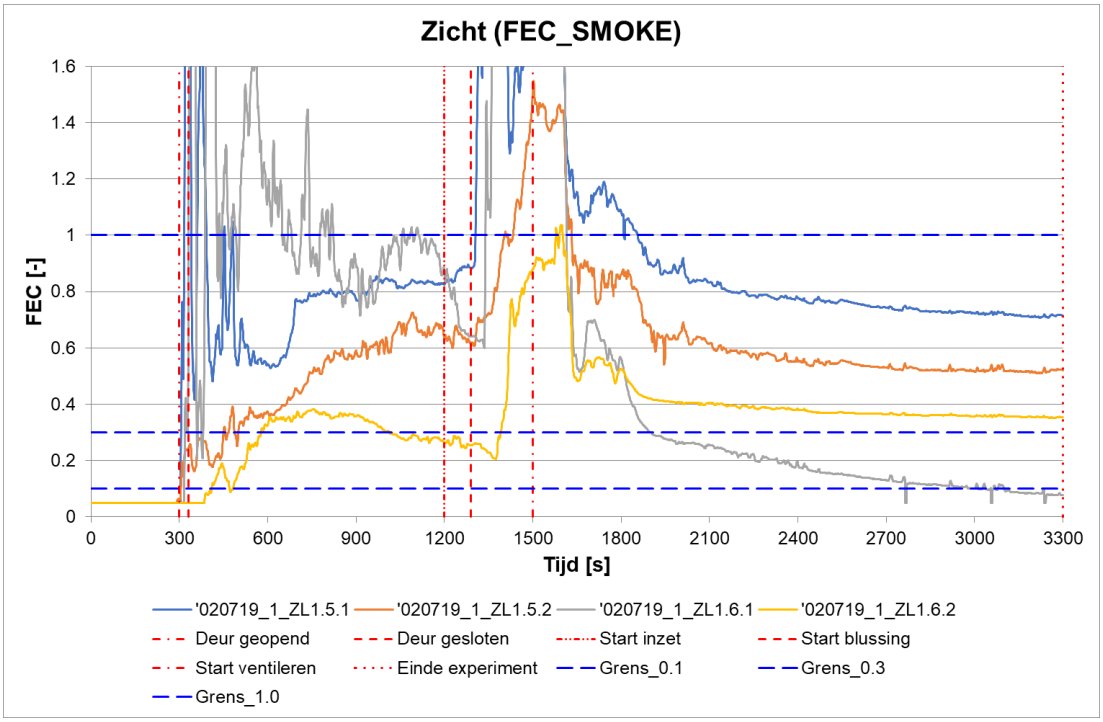




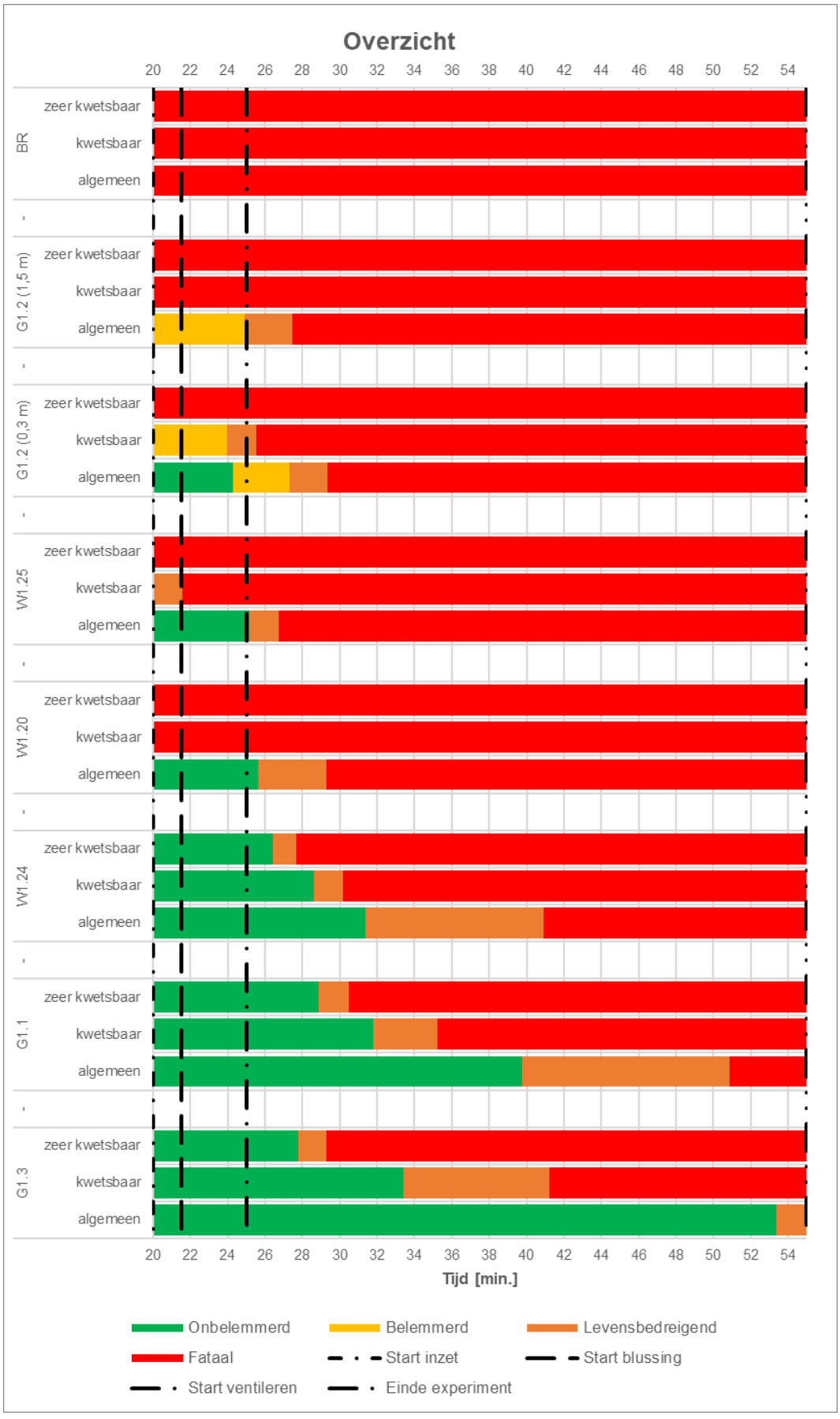
Heat



Visibility



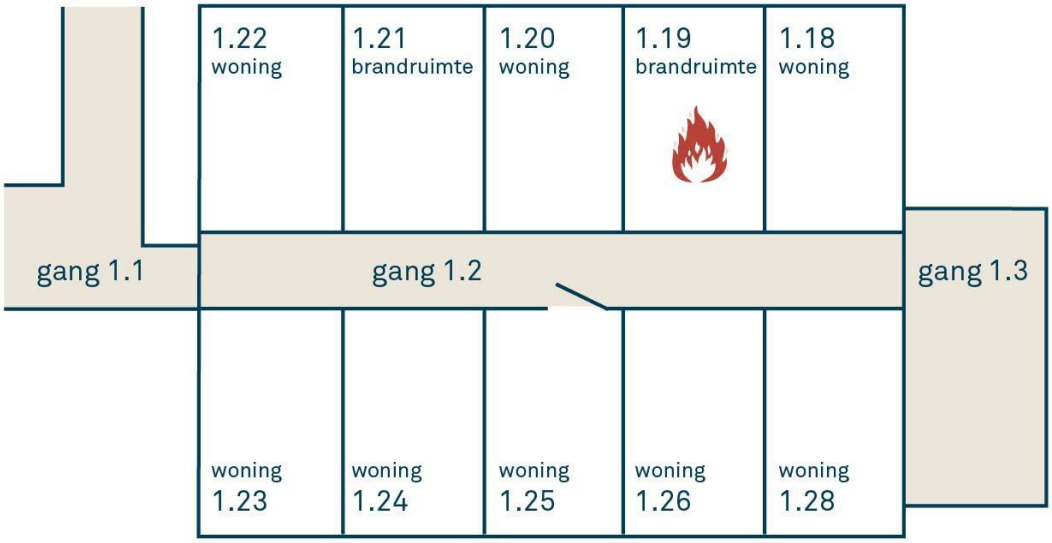
Overview


Overzicht
20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54
BR
G1.2 (1,5 m)
G1.2 (0,3 m)
W1.25
W1.20
W1.24
G1.1
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Start inzet
Start blussing
Start ventileren
Einde experiment

Test 13 (variant 5: smoke resistant partition and door closed) 02/07/19

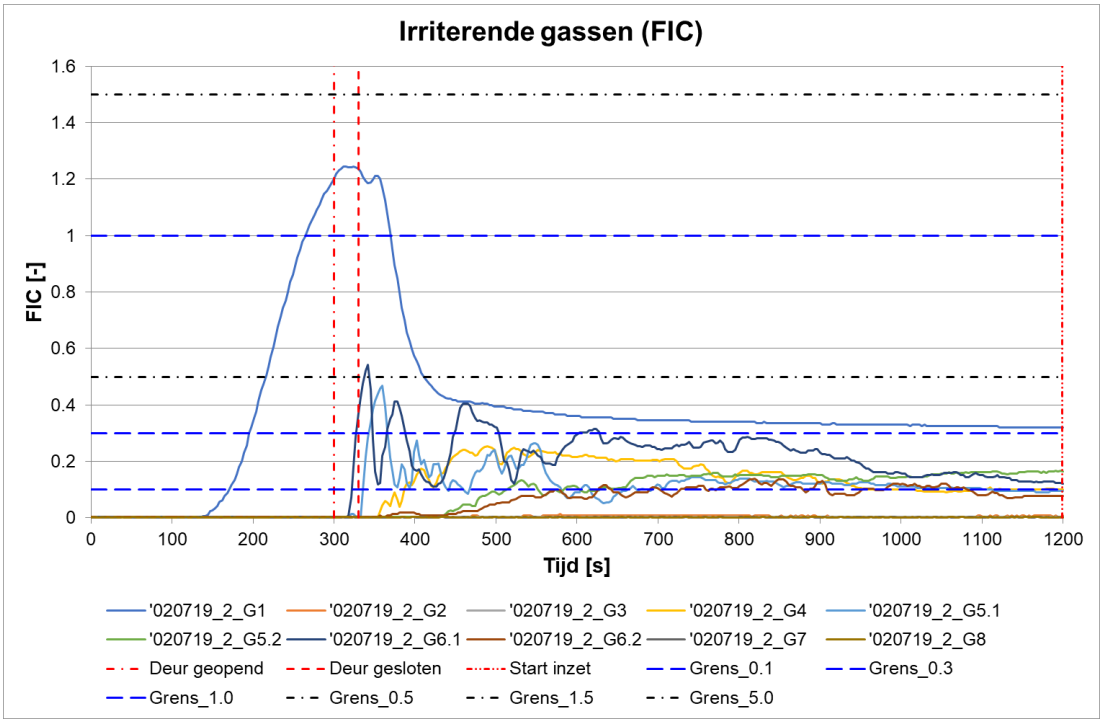
A. Description of the test

Test number	13
Date	02/07/2019
Morning / afternoon	Afternoon
Fire room	1.19
Door to the fire room open / closed	Closed
Fire service deployment	Defensive interior attack
Extra measures	Smoke-resistant door S200
Specific aspects	Camera A6 had the wrong date and time



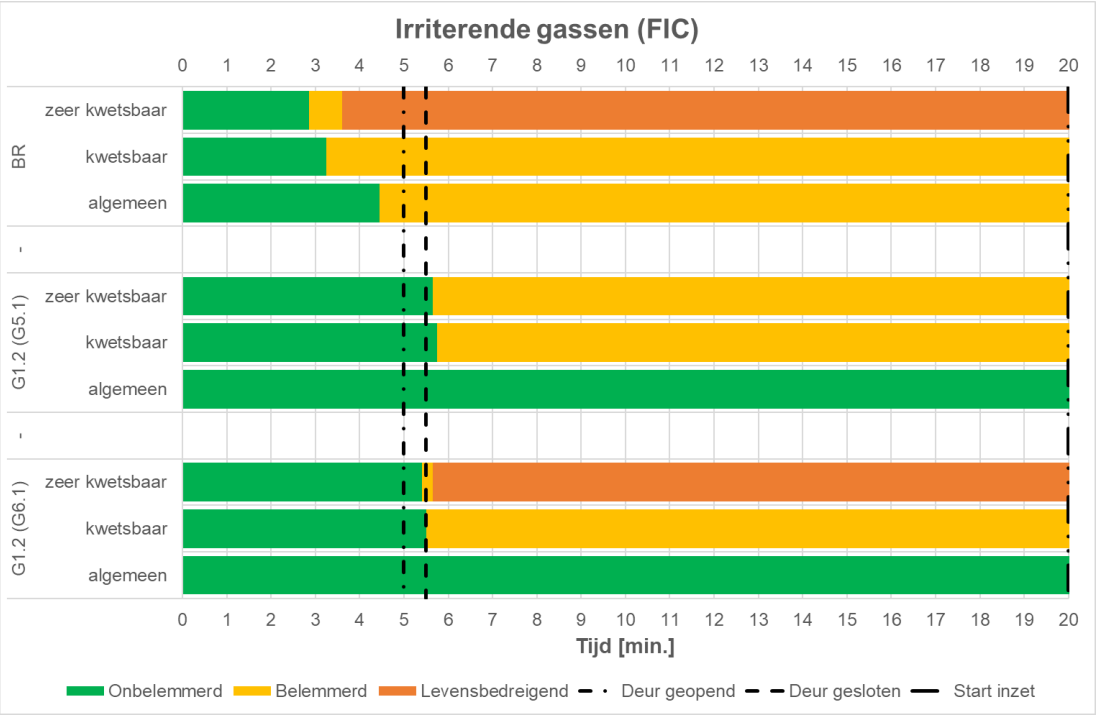
B. Escape phase (0 - 20 minutes)

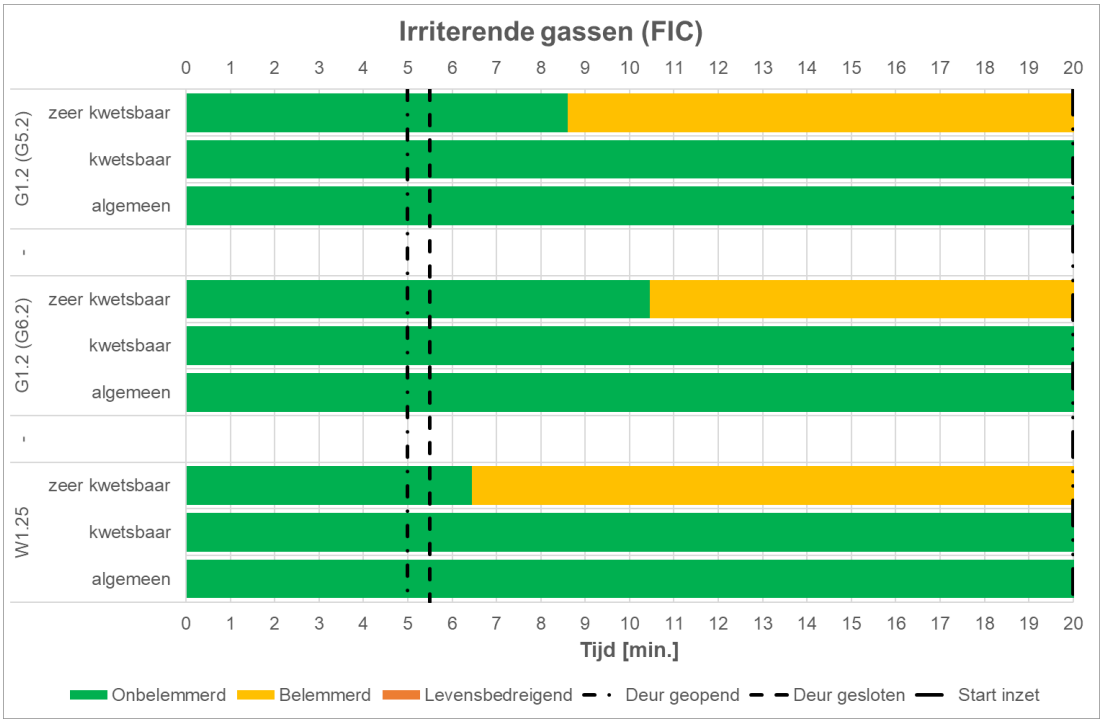
Irritant gases

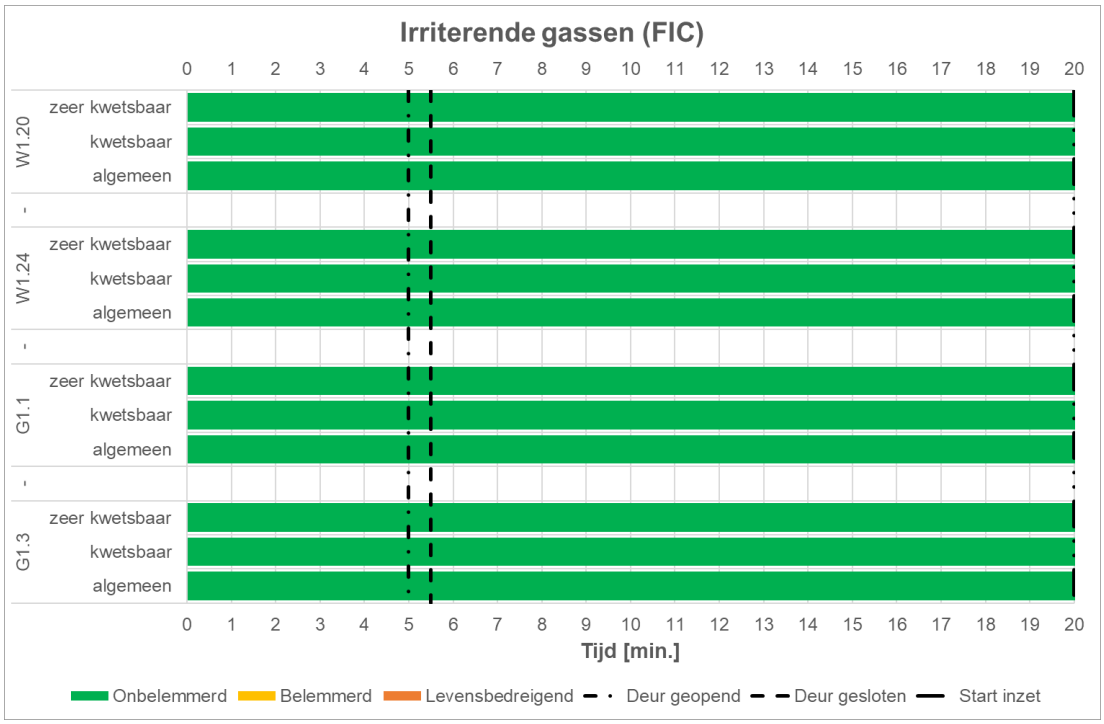


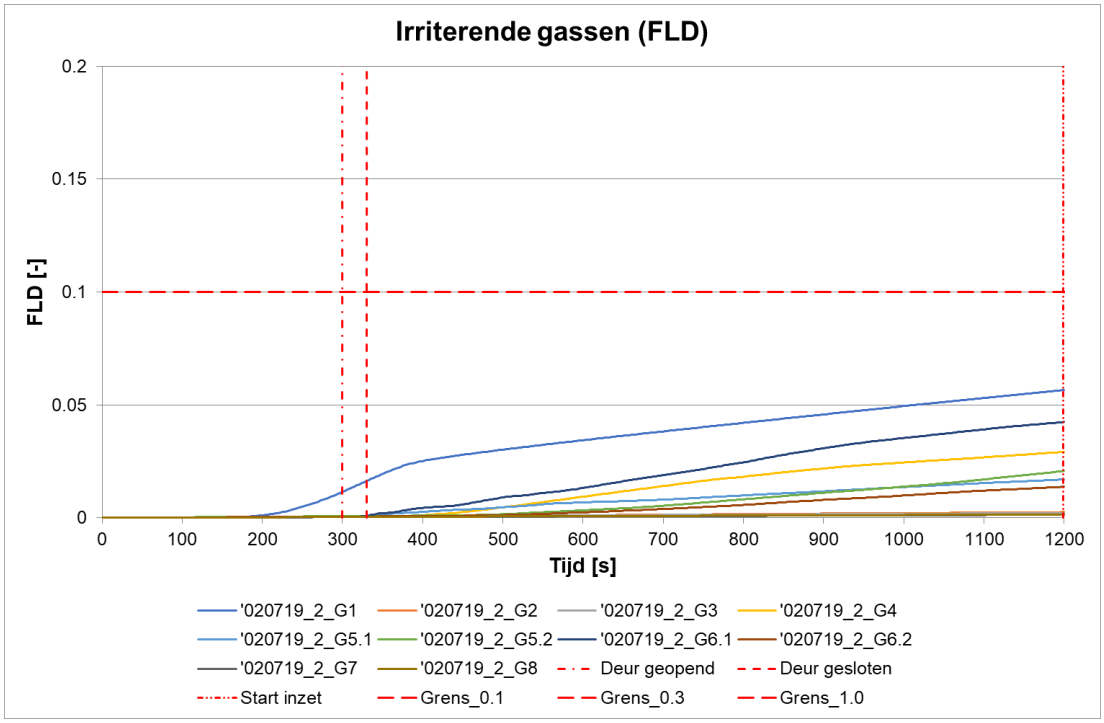
	Irritant gases (FIC)				
	Group	Threshold [-]	Safe [min.]	Impaired [min.]	Life-threatening [min.]
Fire room 1.19 G1	Highly vulnerable	0.1/0.5	2.9	3.6	> 3.6
	Vulnerable	0.3/1.5	3.3	> 55.0	-
	General	1.0/5.0	4.5	> 55.0	-
Residence 1.20 G2	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Residence 1.24 G3	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-

Residence 1.25 G4	Highly vulnerable	0.1/0.5	6.5	> 55.0	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.5	5.7	> 55.0	-
	Vulnerable	0.3/1.5	5.8	> 55.0	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.5	8.6	> 55.0	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.5	5.4	5.7	> 5.7
	Vulnerable	0.3/1.5	5.5	> 55.0	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.5	10.5	> 55.0	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-


Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G5.1)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.1)
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Deur gesloten
Start inzet

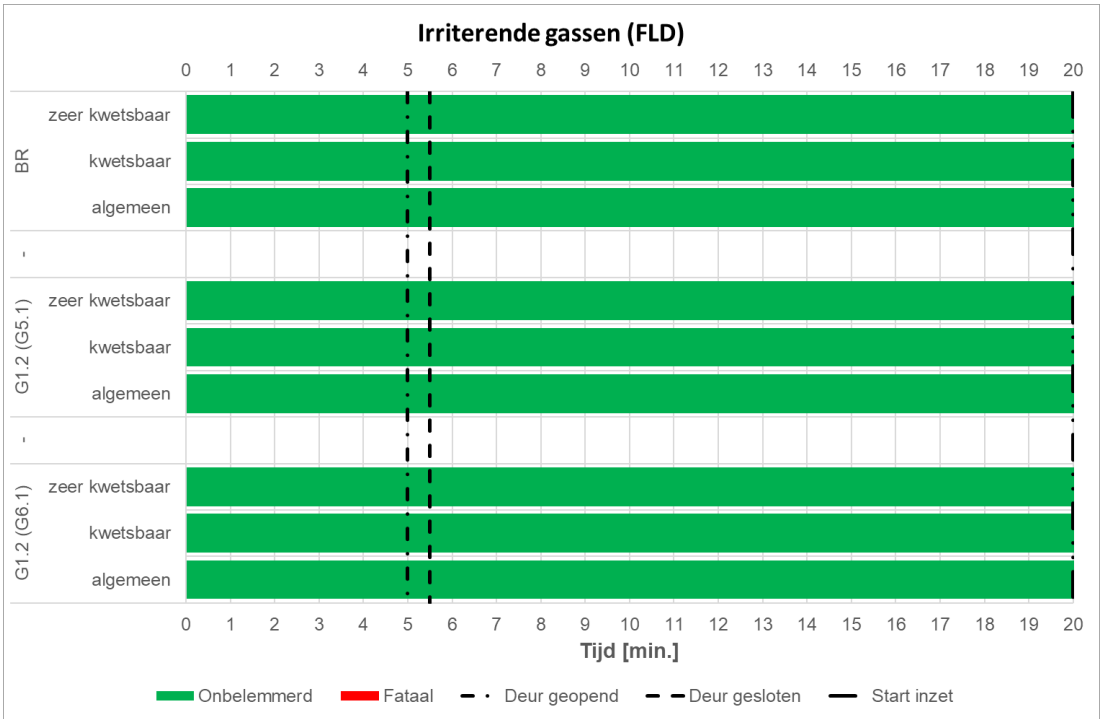

Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Deur gesloten
Start inzet


Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Deur gesloten
Start inzet

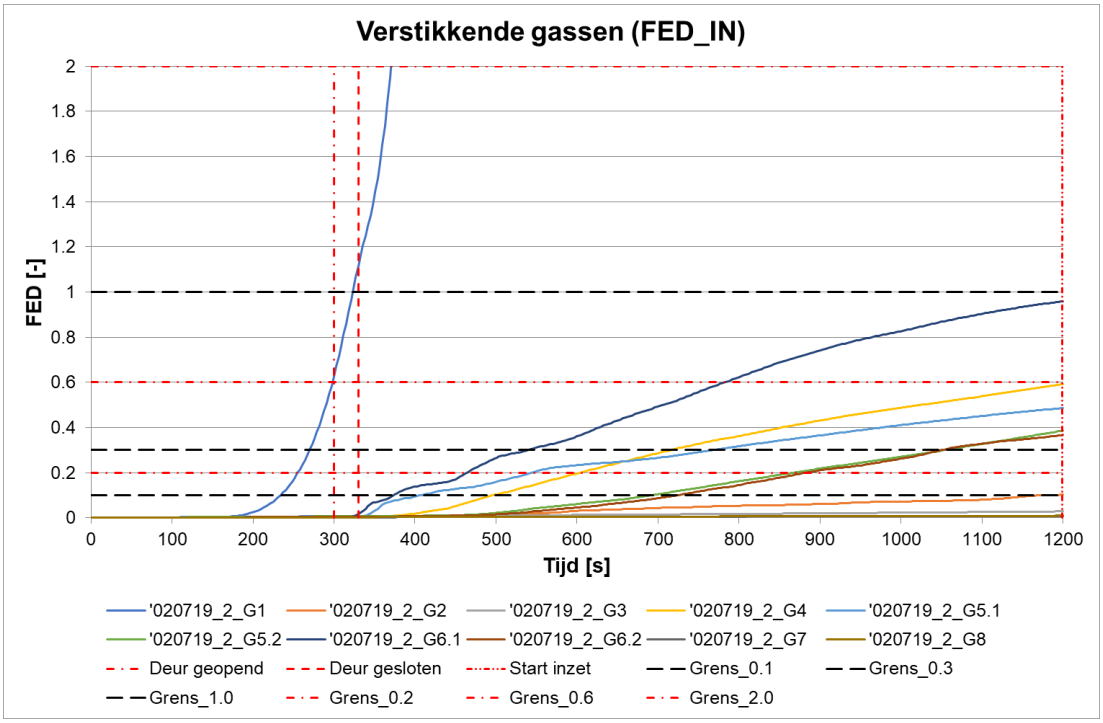

Irriterende gassen (FLD)
FLD [-]
0.2
0.15
0.1
0.05
0
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
Tijd [s]
'020719_2_G1
'020719_2_G2
'020719_2_G3
'020719_2_G4
'020719_2_G5.1
'020719_2_G5.2
'020719_2_G6.1
'020719_2_G6.2
'020719_2_G7
'020719_2_G8
Deur geopend
Deur gesloten
Start inzet
Grens_0.1
Grens_0.3
Grens_1.0

Irritant gases (FLD)				
	Group	Threshold [-]	Safe [min.]	Impaired [min.]
Fire room 1.19 G1	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.20 G2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.24 G3	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.25 G4	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G5.1	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G5.2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G6.1	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-

	General	1.0	> 55.0	-
Corridor 1.2 G6.2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.1 G7	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.3 G8	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-

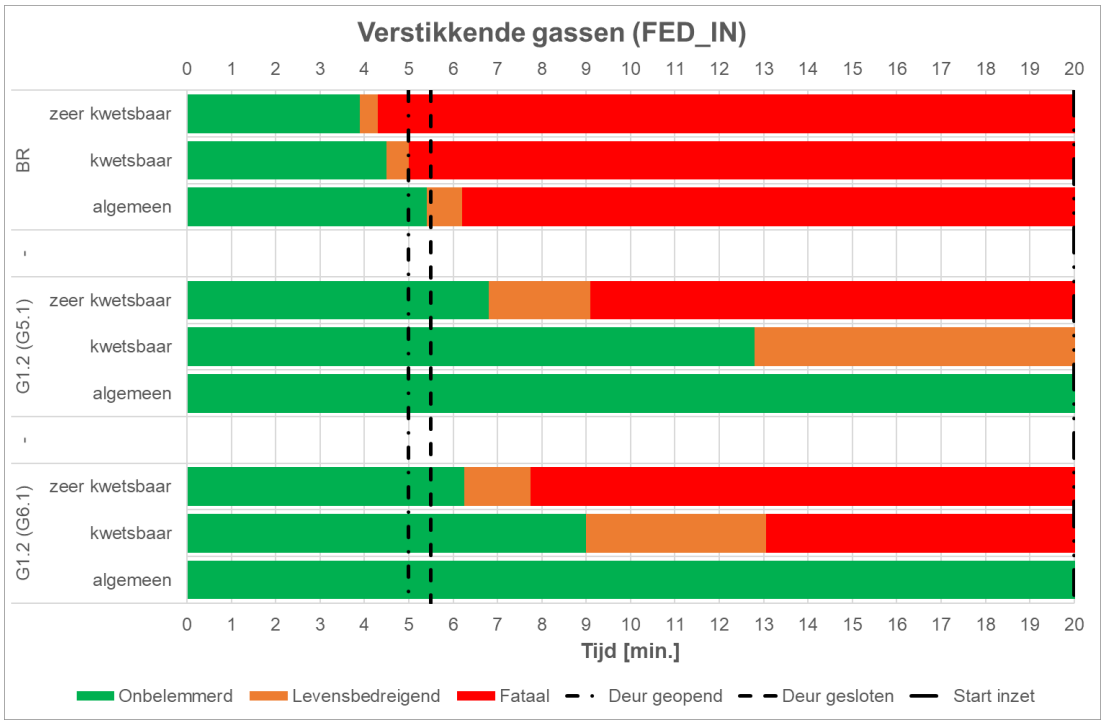


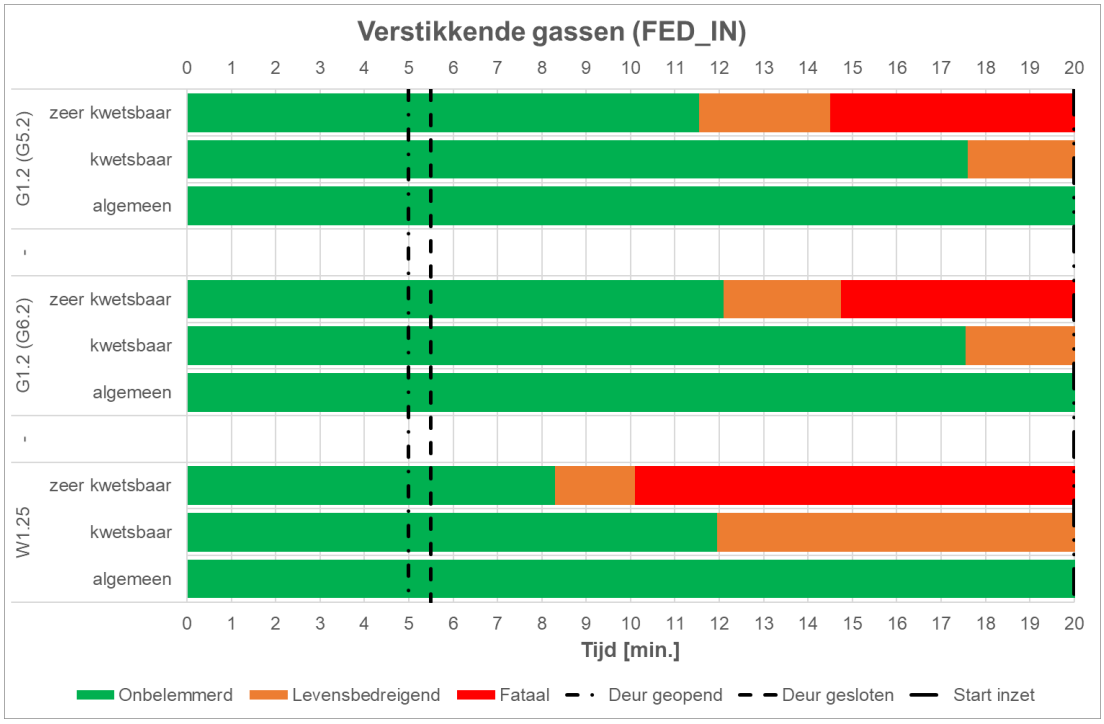
Asphyxiant gases

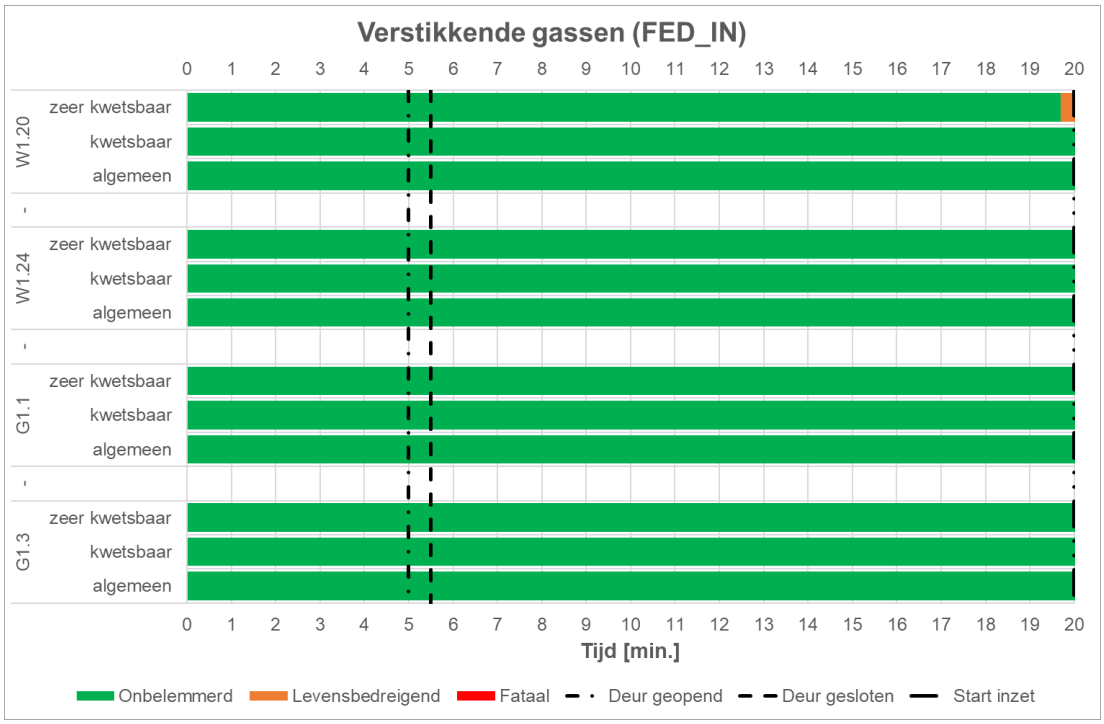


		Asphyxiant gases (FED_IN)			
	Group	Threshold [-]	Safe [min.]	Life-threatening [min.]	Fatal [min.]
Fire room 1.19 G1	Highly vulnerable	0.1/0.2	3.9	4.3	> 4.3
	Vulnerable	0.3/0.6	4.5	5.0	> 5.0
	General	1.0/2.0	5.4	6.2	> 6.2
Residence 1.20 G2	Highly vulnerable	0.1/0.2	19.7	25.0	> 25.0
	Vulnerable	0.3/0.6	28.7	38.8	> 38.8
	General	1.0/2.0	> 55.0	-	-
Residence 1.24 G3	Highly vulnerable	0.1/0.2	41.9	43.8	> 43.8
	Vulnerable	0.3/0.6	50.1	> 55.0	-
	General	1.0/2.0	> 55.0	-	-
Residence 1.25	Highly vulnerable	0.1/0.2	8.3	10.1	> 10.1

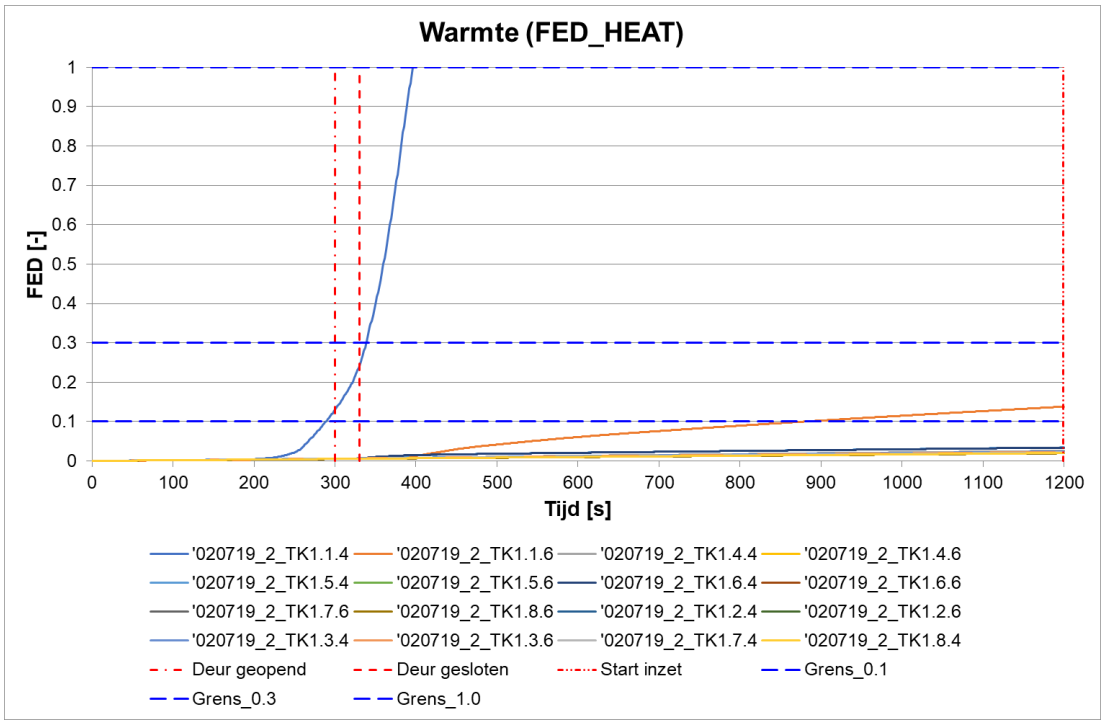
G4	Vulnerable	0.3/0.6	12.0	20.3	> 20.3
	General	1.0/2.0	31.0	52.5	> 52.5
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.2	6.8	9.1	> 9.1
	Vulnerable	0.3/0.6	12.8	25.7	> 25.7
	General	1.0/2.0	41.8	> 55.0	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.2	11.6	14.5	> 14.5
	Vulnerable	0.3/0.6	17.6	27.3	> 27.3
	General	1.0/2.0	41.8	> 55.0	-
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.2	6.3	7.8	> 7.8
	Vulnerable	0.3/0.6	9.0	13.1	> 13.1
	General	1.0/2.0	21.4	> 55.0	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.2	12.1	14.8	> 14.8
	Vulnerable	0.3/0.6	17.6	34.6	> 34.6
	General	1.0/2.0	39.2	> 55.0	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.2	44.7	49.5	> 49.5
	Vulnerable	0.3/0.6	> 55.0	-	-
	General	1.0/2.0	> 55.0	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.2	> 55.0	-	-
	Vulnerable	0.3/0.6	> 55.0	-	-
	General	1.0/2.0	> 55.0	-	-


Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G5.1)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.1)
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet


Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

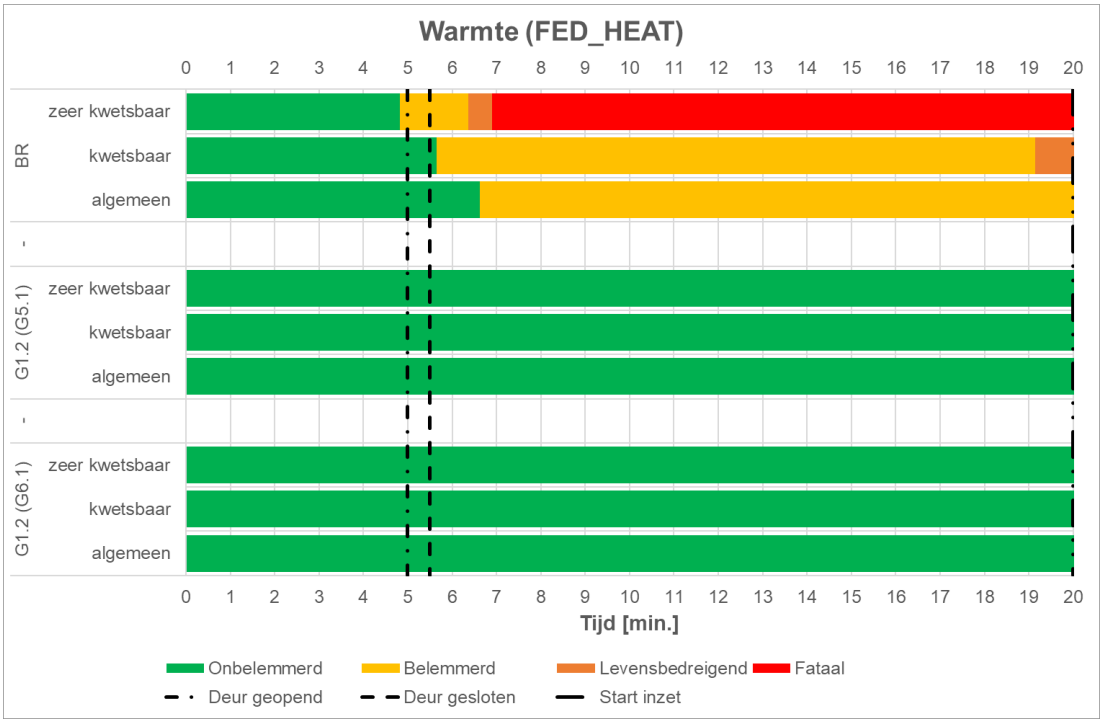

Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

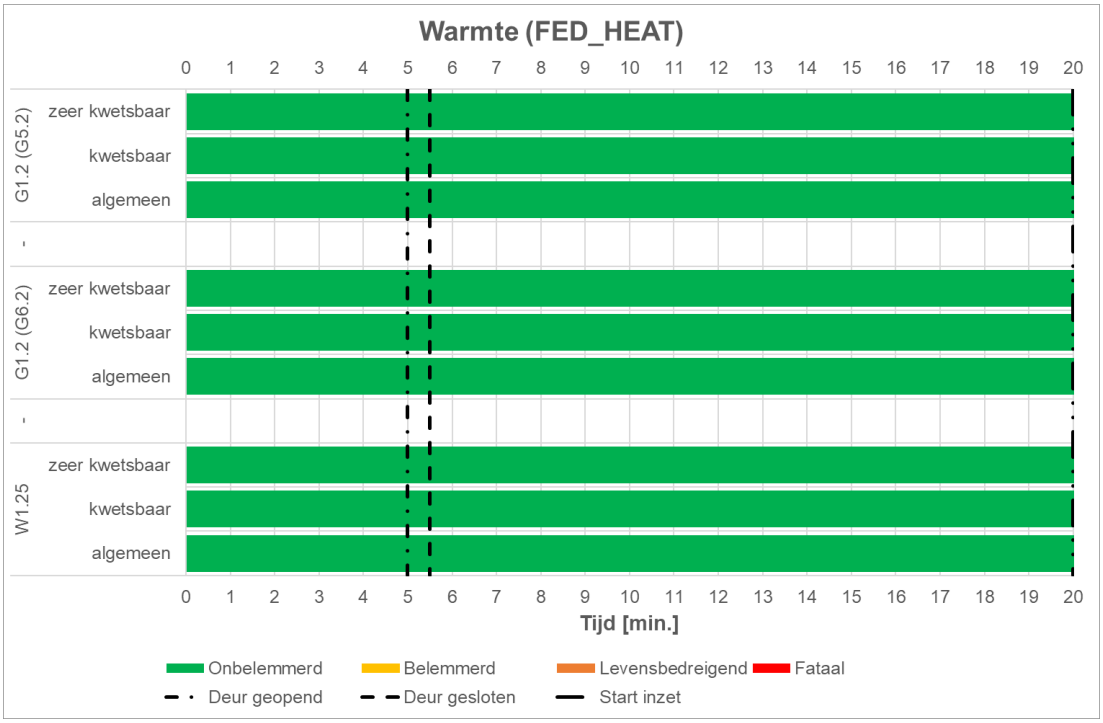
Heat

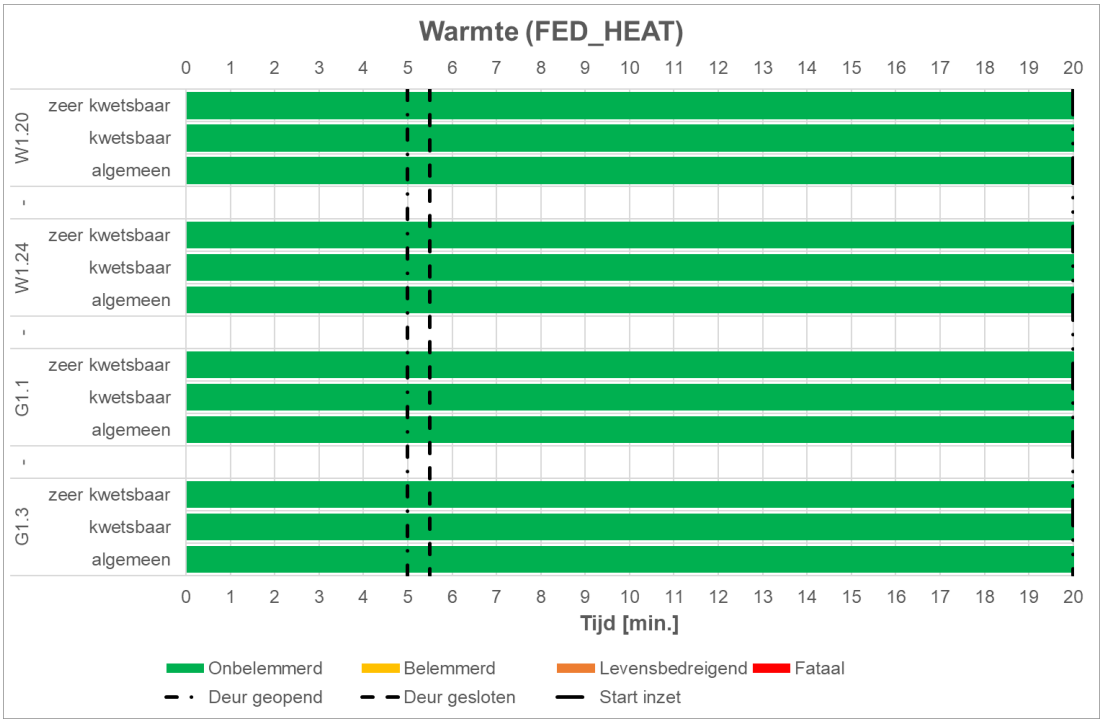

Warmte (FED_HEAT)
FED [-]
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
Tijd [s]
'020719_2_TK1.1.4
'020719_2_TK1.1.6
'020719_2_TK1.4.4
'020719_2_TK1.4.6
'020719_2_TK1.5.4
'020719_2_TK1.5.6
'020719_2_TK1.6.4
'020719_2_TK1.6.6
'020719_2_TK1.7.6
'020719_2_TK1.8.6
'020719_2_TK1.2.4
'020719_2_TK1.2.6
'020719_2_TK1.3.4
'020719_2_TK1.3.6
'020719_2_TK1.7.4
'020719_2_TK1.8.4
Deur geopend
Deur gesloten
Start inzet
Grens_0.1
Grens_0.3
Grens_1.0

Heat (FED_HEAT)						
	Group	Threshold [-]	Safe [min.]	Impaired [min.]	Life-threatening [min.]	Fatal [min.
Fire room 1.19 G1	Highly vulnerable	0.1/0.8/1.2	4.8	6.4	6.9	> 6.9
	Vulnerable	0.3/2.4/12.0	5.7	19.2	> 55.0	-
	General	1.0/8.0/12.0	6.6	> 55.0	-	-
Residence 1.20 G2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Residence 1.24 G3	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Residence 1.25 G4	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-

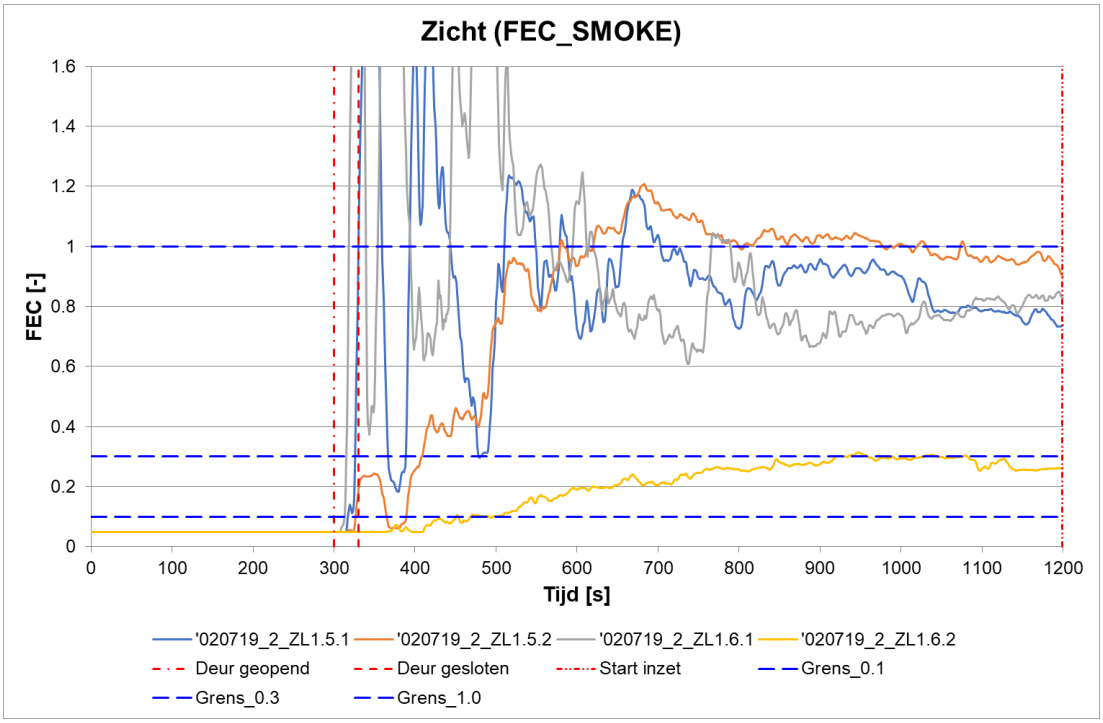
G6.1	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-




Warmte (FED_HEAT)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

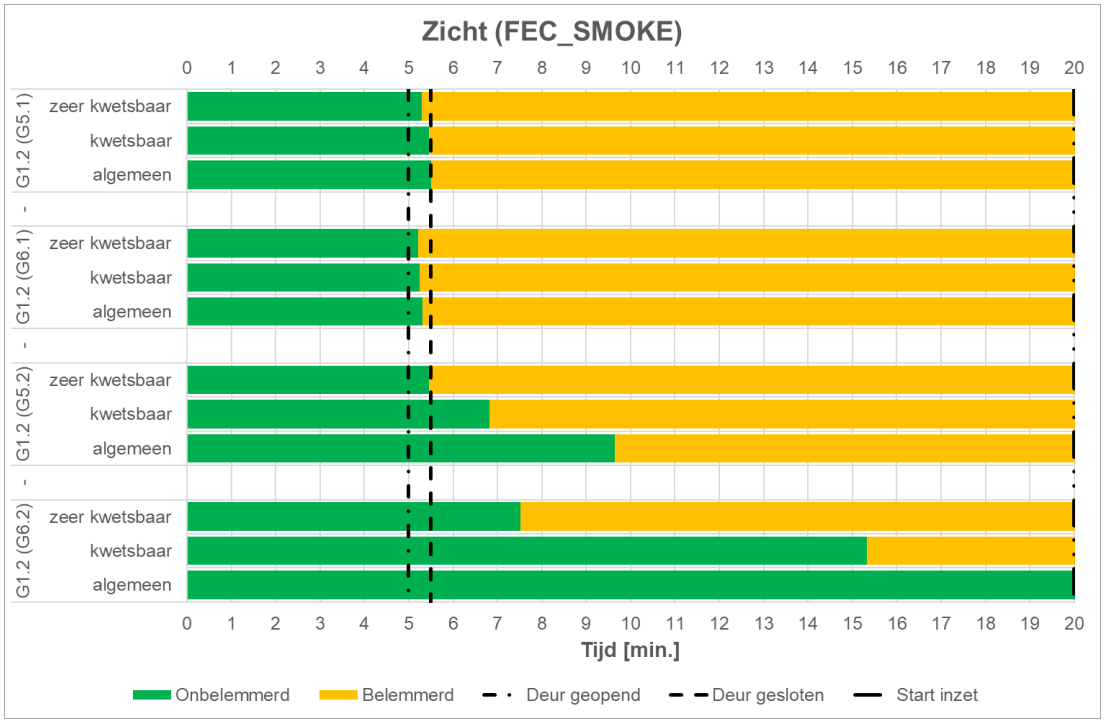

Warmte (FED_HEAT)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

Visibility

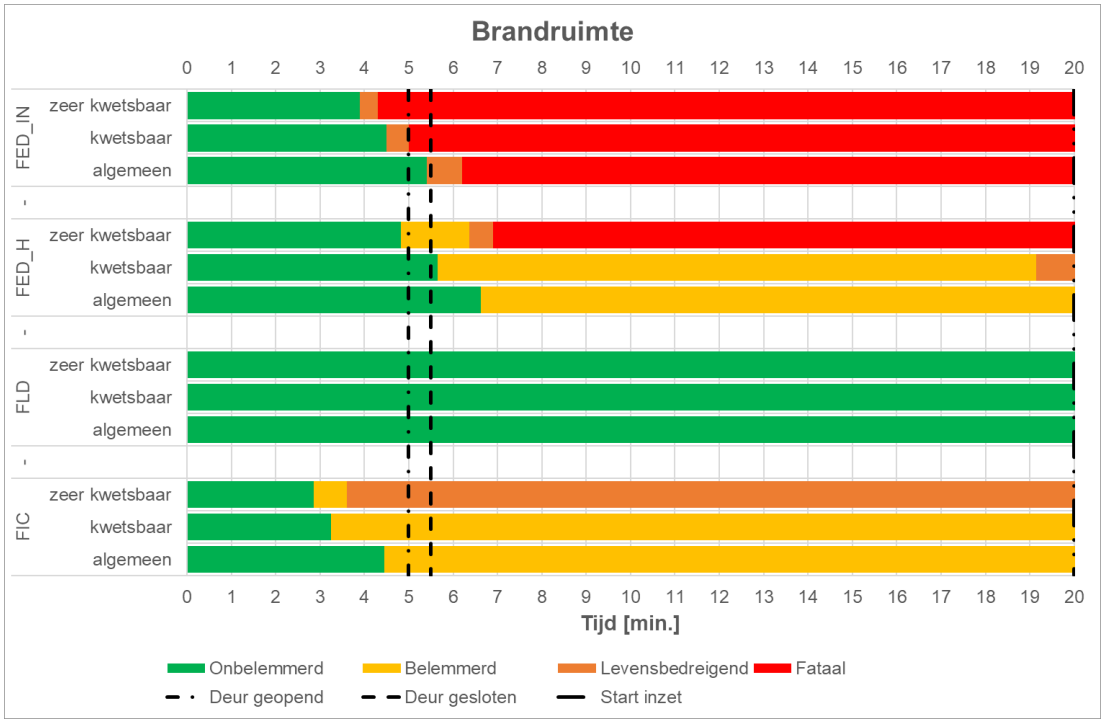


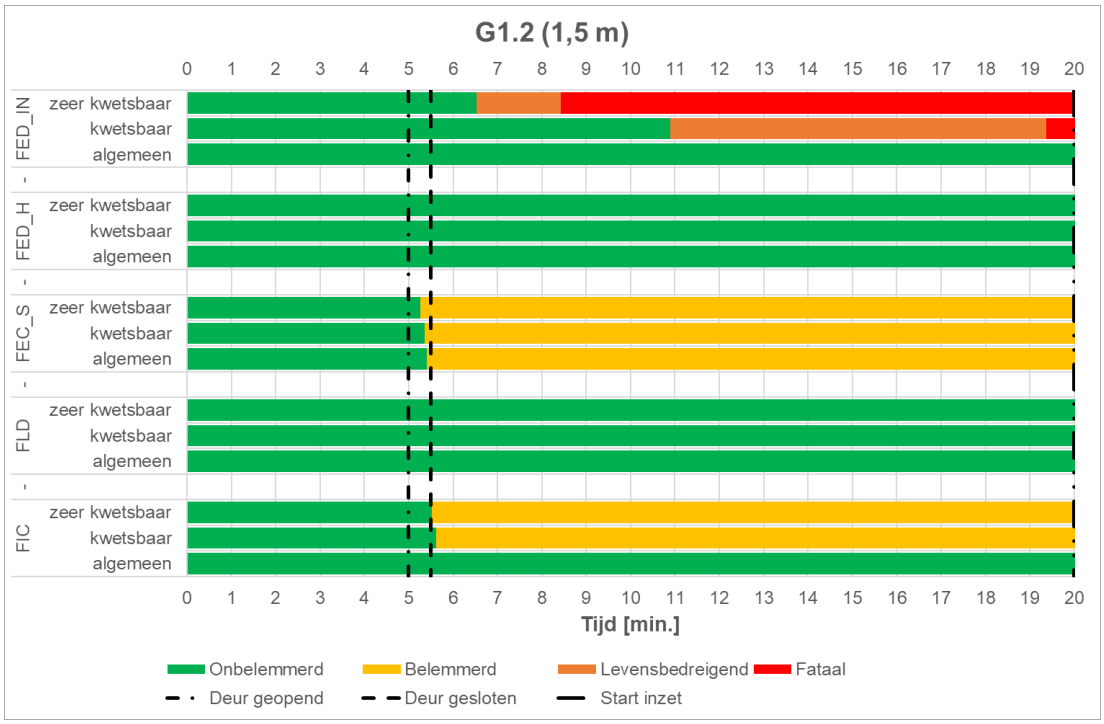
Visibility (FEC_SMOKE)				
	Group	Threshold [-]	Safe [min.]	Impaired [min.]
Corridor 1.2 G5.1	Highly vulnerable	0.1	5.3	> 5.3
	Vulnerable	0.3	5.5	> 5.5
	General	1.0	5.5	> 5.5
Corridor 1.2 G5.2	Highly vulnerable	0.1	5.5	> 5.5
	Vulnerable	0.3	6.8	> 6.8
	General	1.0	9.7	> 9.7
Corridor 1.2 G6.1	Highly vulnerable	0.1	5.2	> 5.2
	Vulnerable	0.3	5.3	> 5.3
	General	1.0	5.3	> 5.3

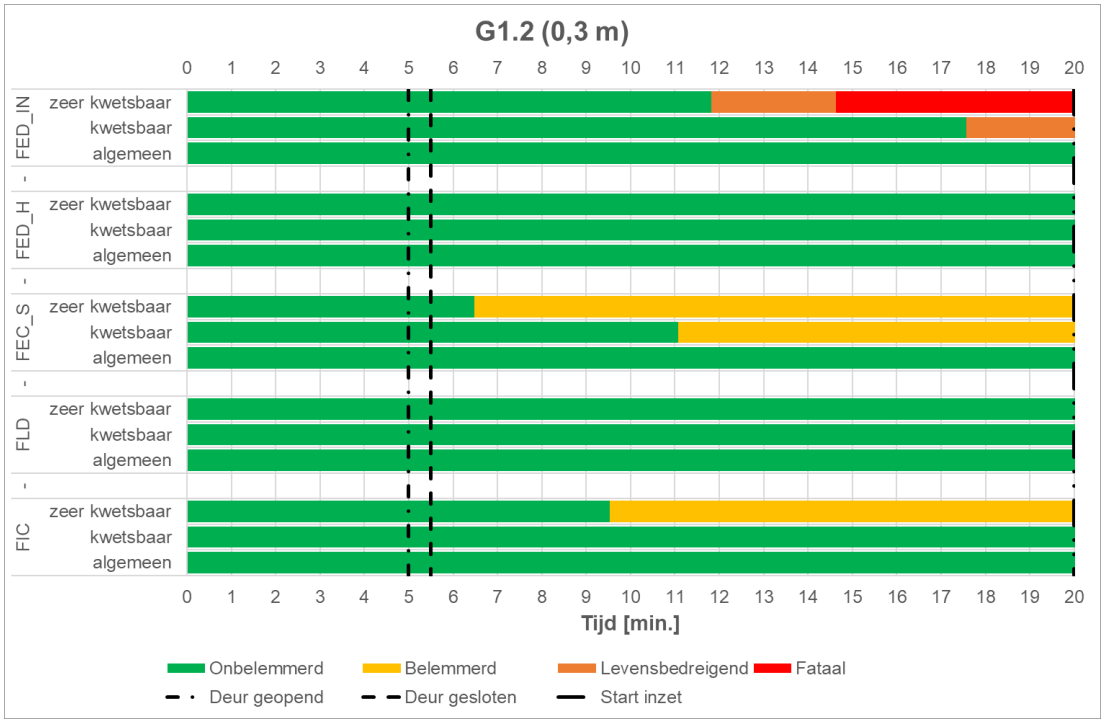
Corridor 1.2 G6.2	Highly vulnerable	0.1	7.5	> 7.5
	Vulnerable	0.3	15.3	> 15.3
	General	1.0	> 55.0	-



Overview

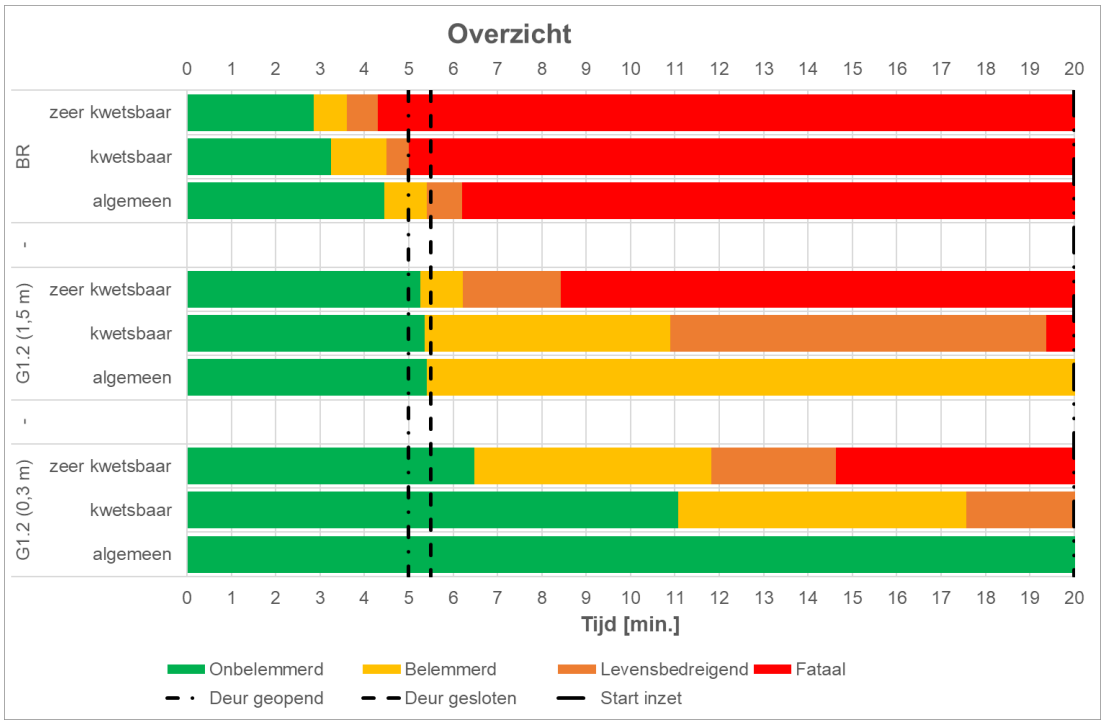


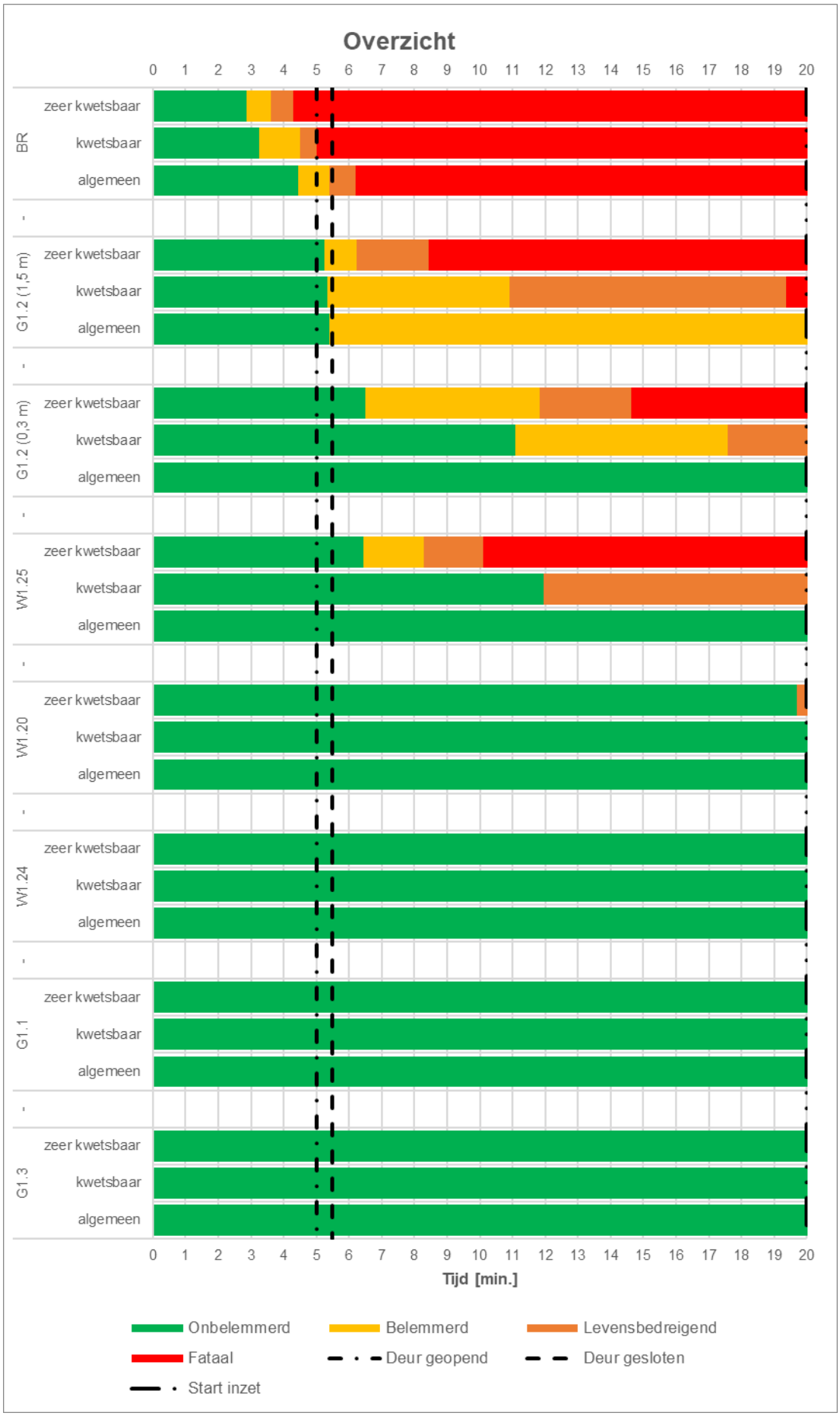

G1.2 (1,5 m)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
FED_IN
FED_H
FEC_S
FLD
FIC
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet


G1.2 (0,3 m)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
FED_IN
FED_H
FEC_S
FLD
FIC
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

	Overview	Escape		Survivability	
	Group	Safe [min.]	Impaired [min.]	Life-threatening [min.]	Fatal [min.]
Fire room 1.19 G1	Highly vulnerable	2.9	3.6	4.3	> 4.3
	Vulnerable	3.3	4.5	5.0	> 5.0
	General	4.5	5.4	6.2	> 6.2
Residence 1.20 G2	Highly vulnerable	19.7	19.7	25.0	> 25.0
	Vulnerable	28.7	28.7	38.8	> 38.8
	General	> 55.0	-	-	-
Residence 1.24 G3	Highly vulnerable	41.9	41.9	43.8	> 43.8
	Vulnerable	50.1	50.1	> 55.0	-
	General	> 55.0	-	-	-
Residence 1.25 G4	Highly vulnerable	6.5	8.3	10.1	> 10.1
	Vulnerable	12.0	12.0	20.3	> 20.3
	General	31.0	31.0	52.5	> 52.5
Corridor 1.2 G5.1	Highly vulnerable	5.3	6.8	9.1	> 9.1
	Vulnerable	5.5	12.8	25.7	> 25.7
	General	5.5	41.8	> 55.0	-
Corridor 1.2 G5.2	Highly vulnerable	5.5	11.6	14.5	> 14.5
	Vulnerable	6.8	17.6	27.3	> 27.3
	General	9.7	41.8	> 55.0	-
Corridor 1.2	Highly vulnerable	5.2	5.7	7.8	> 7.8

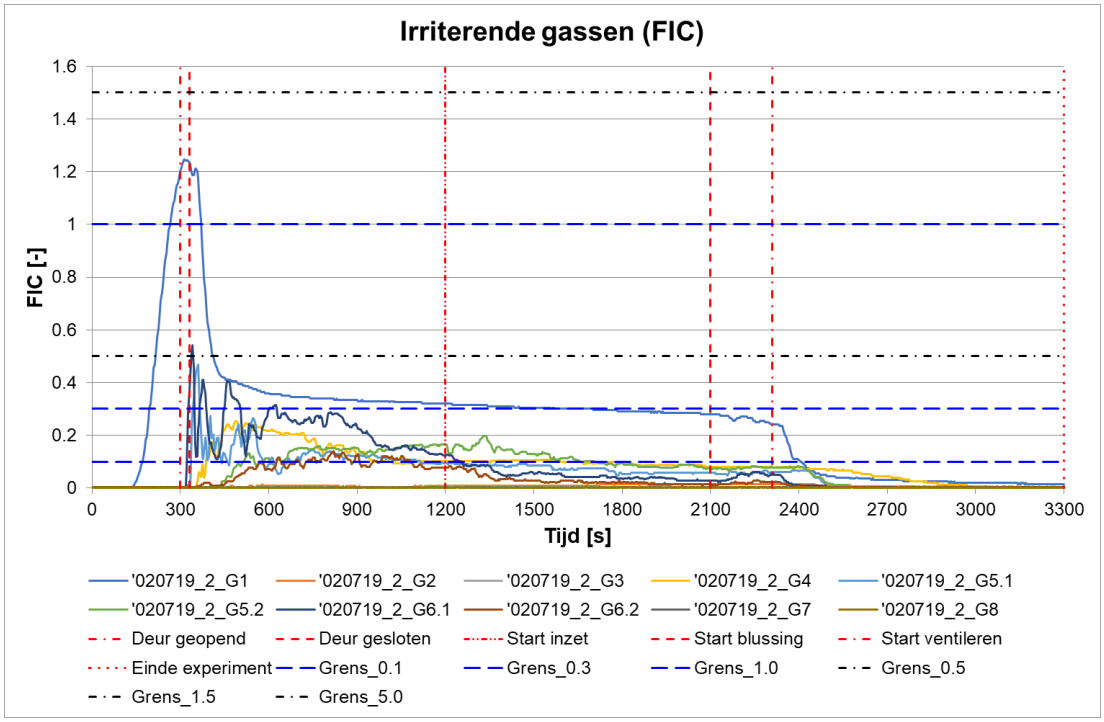
G6.1	Vulnerable	5.3	9.0	13.1	> 13.1
	General	5.3	21.4	> 55.0	-
Corridor 1.2 G6.2	Highly vulnerable	7.5	12.1	14.8	> 14.8
	Vulnerable	15.3	17.6	34.6	> 34.6
	General	39.2	39.2	> 55.0	-
Corridor 1.1 G7	Highly vulnerable	44.7	44.7	49.5	> 49.5
	Vulnerable	> 55.0	-	-	-
	General	> 55.0	-	-	-
Corridor 1.3 G8	Highly vulnerable	> 55.0	-	-	-
	Vulnerable	> 55.0	-	-	-
	General	> 55.0	-	-	-

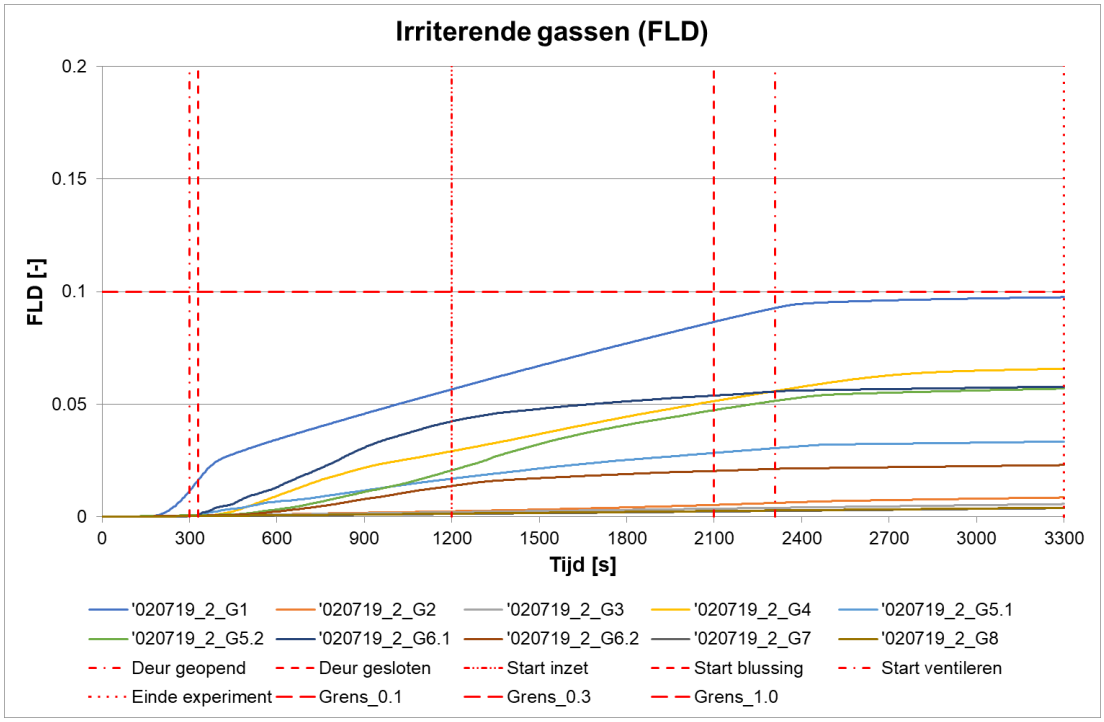



Overzicht
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (1,5 m)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (0,3 m)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

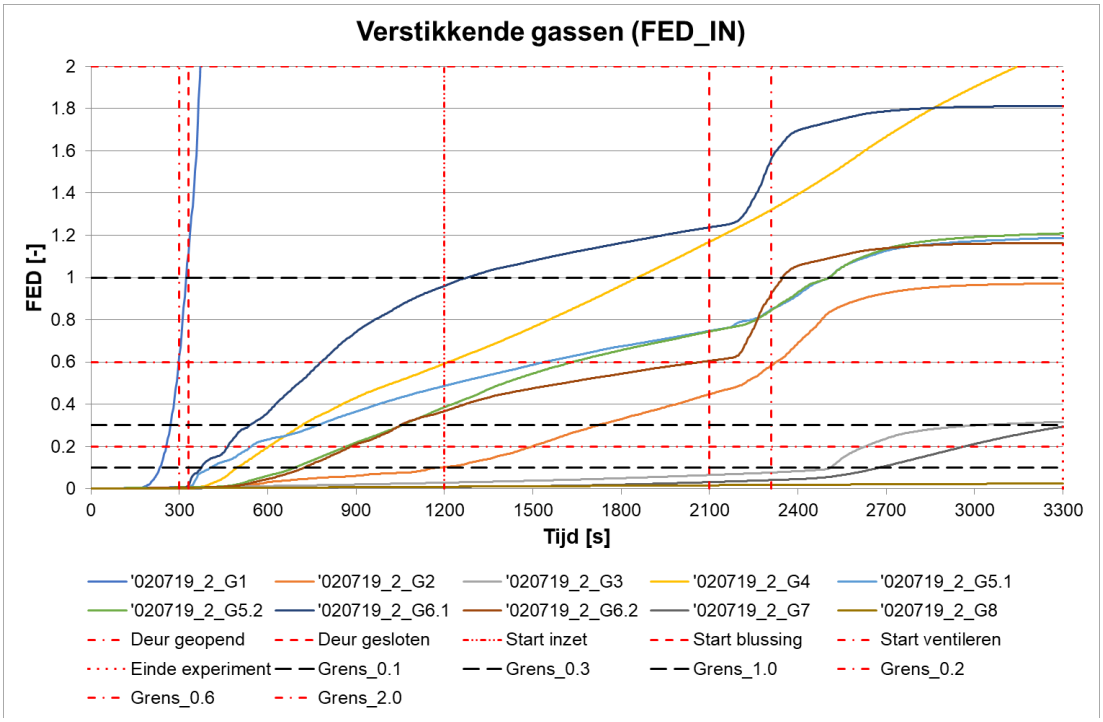
C. Deployment phase (20 - 55 minutes)

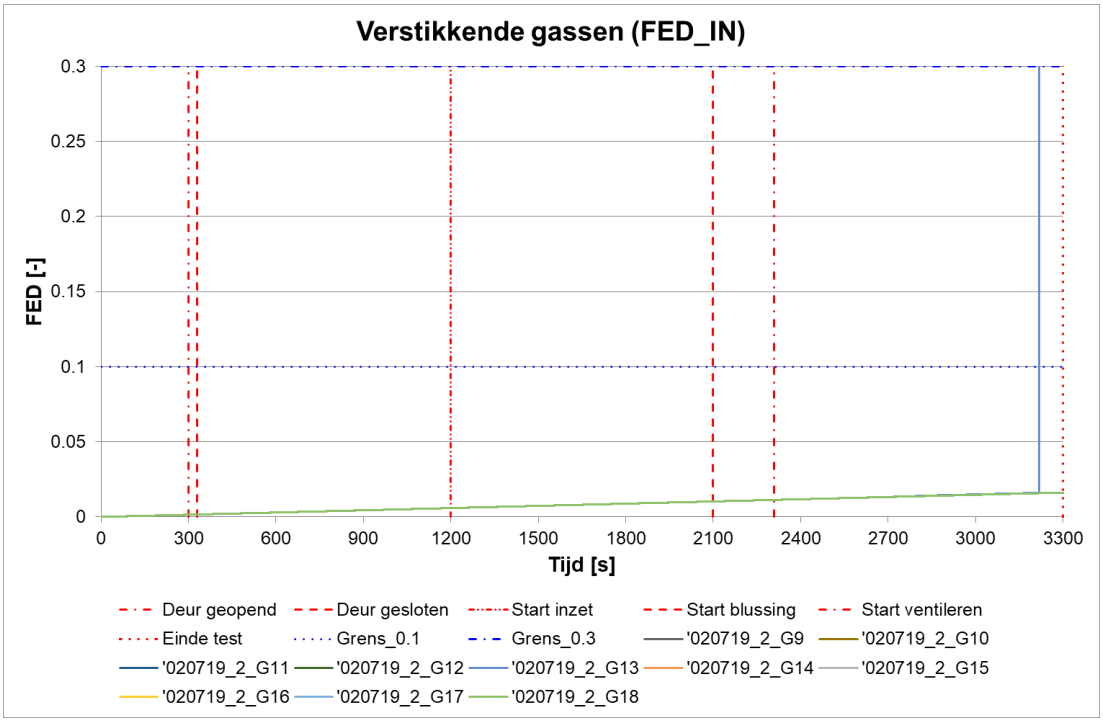
Irritant gases



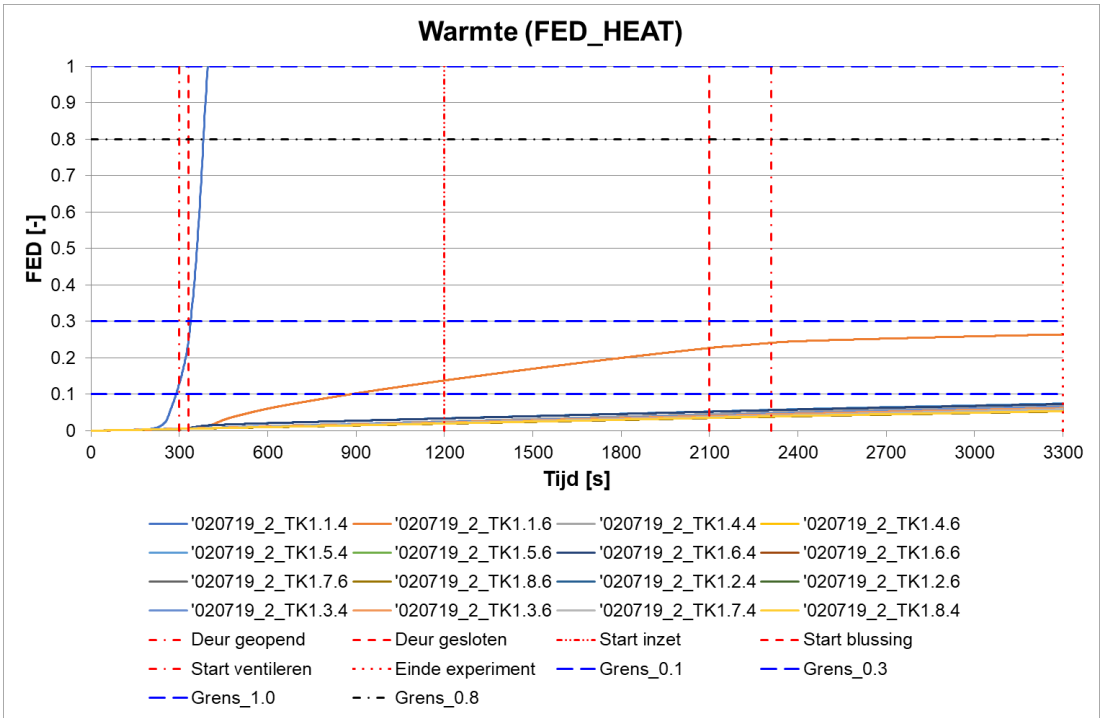


Asphyxiant gases

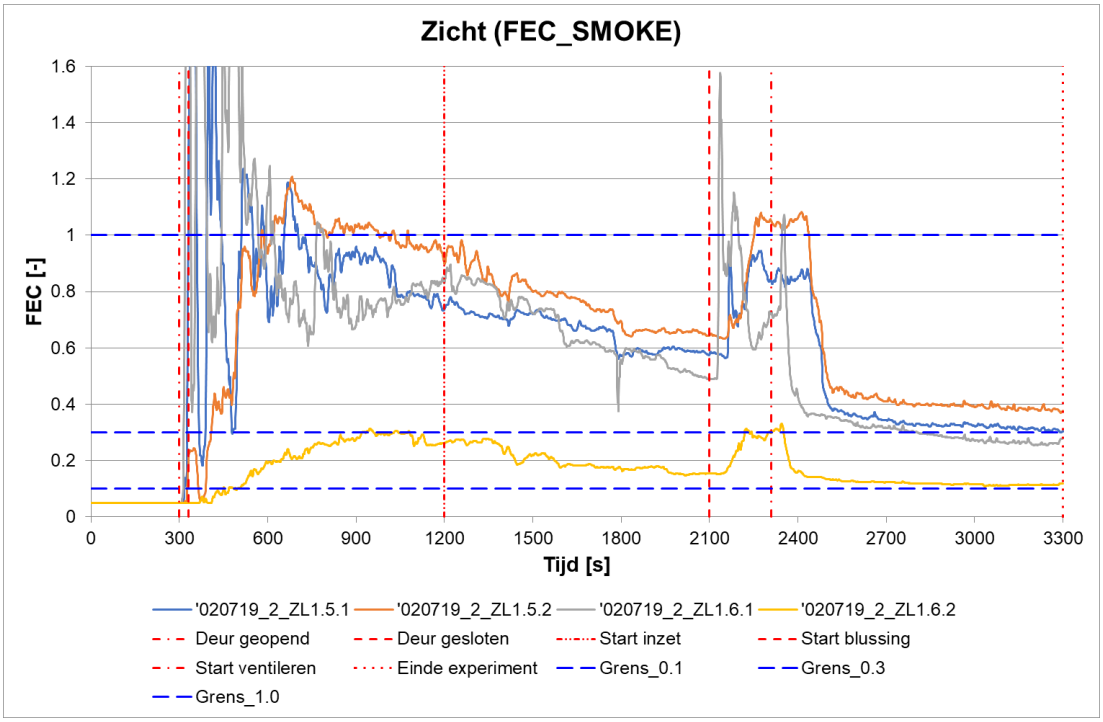




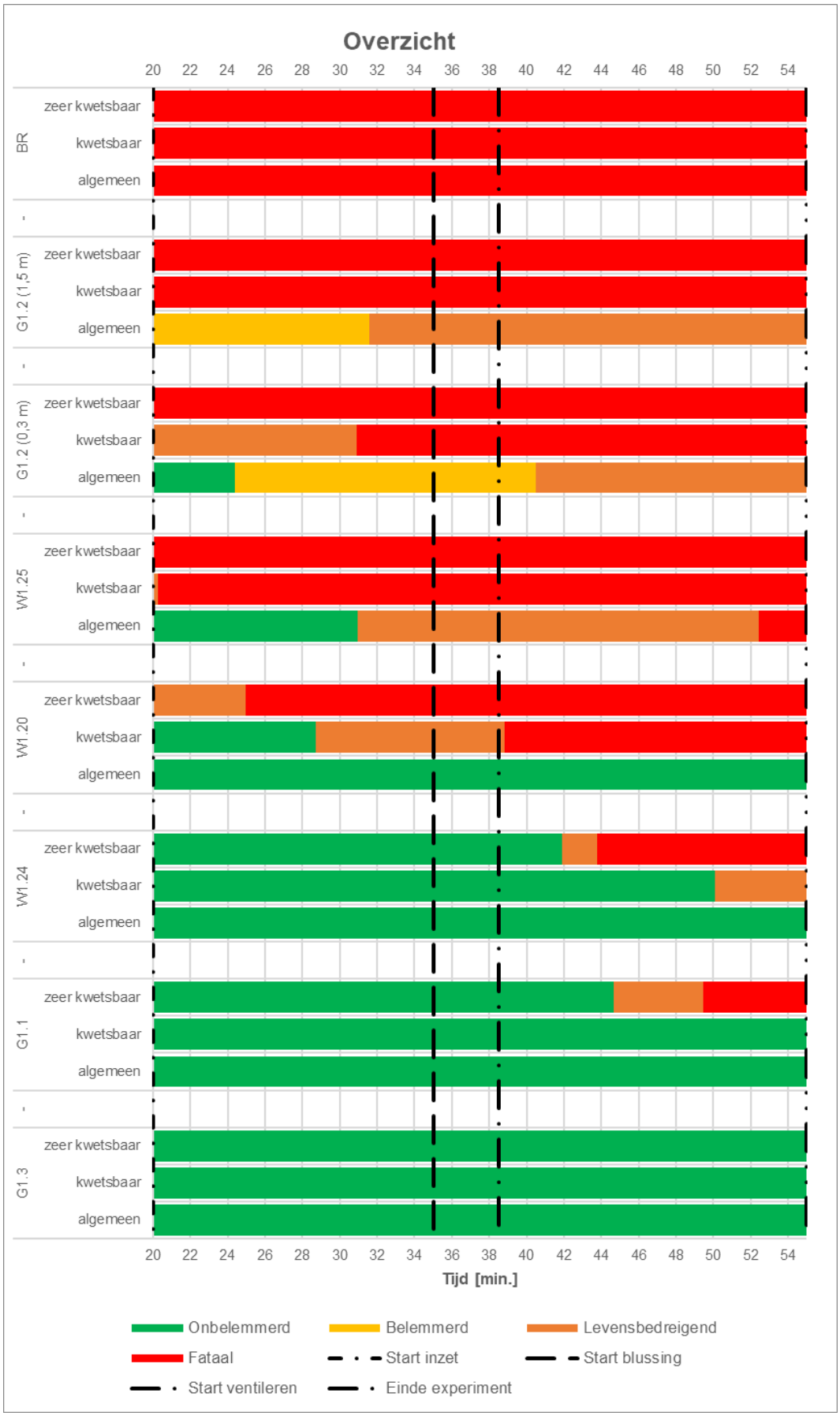
Heat



Visibility



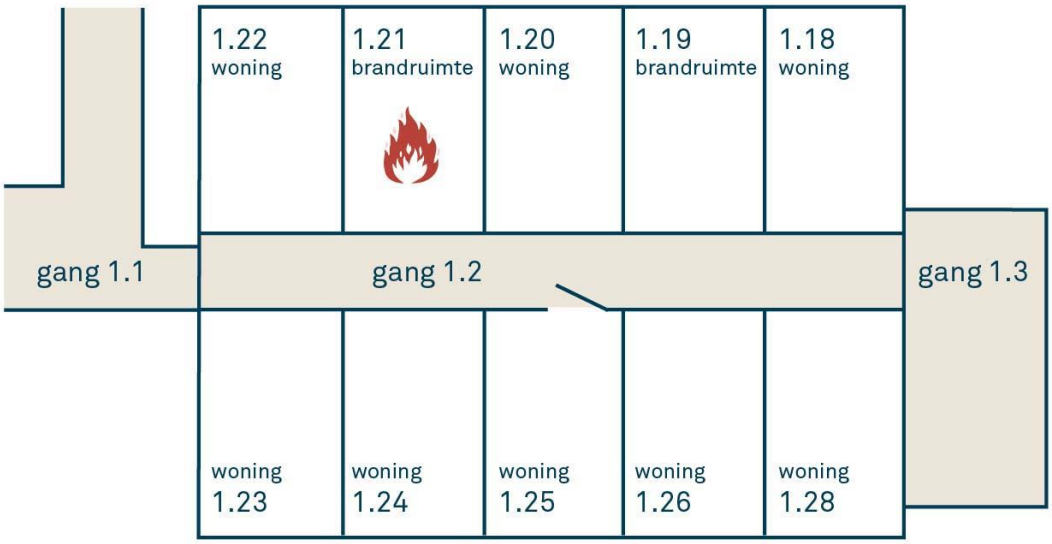
Overview


Overzicht
20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54
BR
G1.2 (1,5 m)
G1.2 (0,3 m)
W1.25
W1.20
W1.24
G1.1
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Start inzet
Start blussing
Start ventileren
Einde experiment

Test 14 (variant 7: organic fire load and door closed) 03/07/19

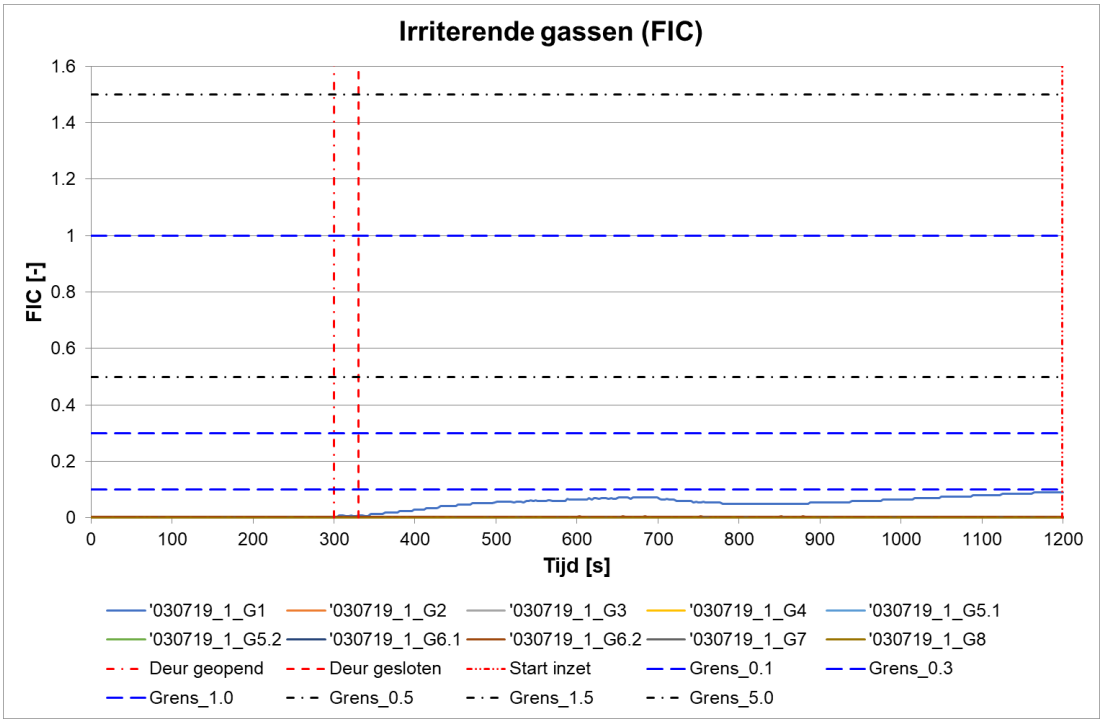
A. Description of the test

Test number	14
Date	03/07/2019
Morning / afternoon	Morning
Fire room	1.21
Door to the fire room open / closed	Closed
Fire service deployment	Defensive interior attack
Extra measures	Organic fire load
Specific aspects	Fan in first-floor corridor switched on at t = 40 minutes and 50 seconds instead of at t = 38 minutes and 30 seconds.



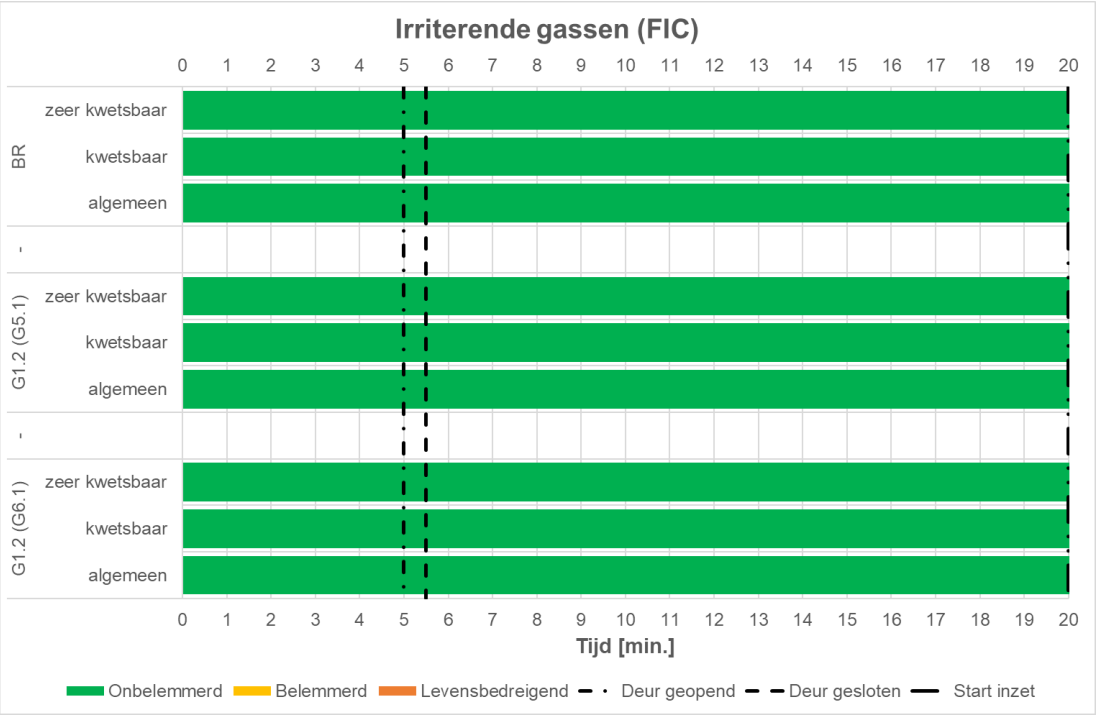
B. Escape phase (0 - 20 minutes)

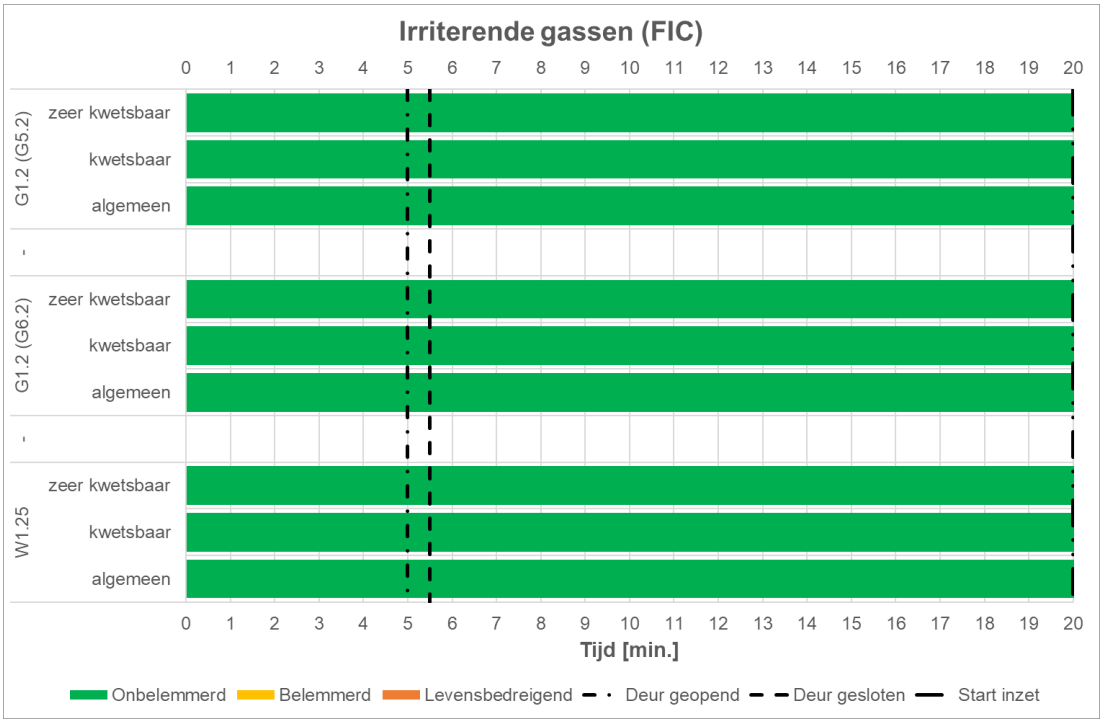
Irritant gases

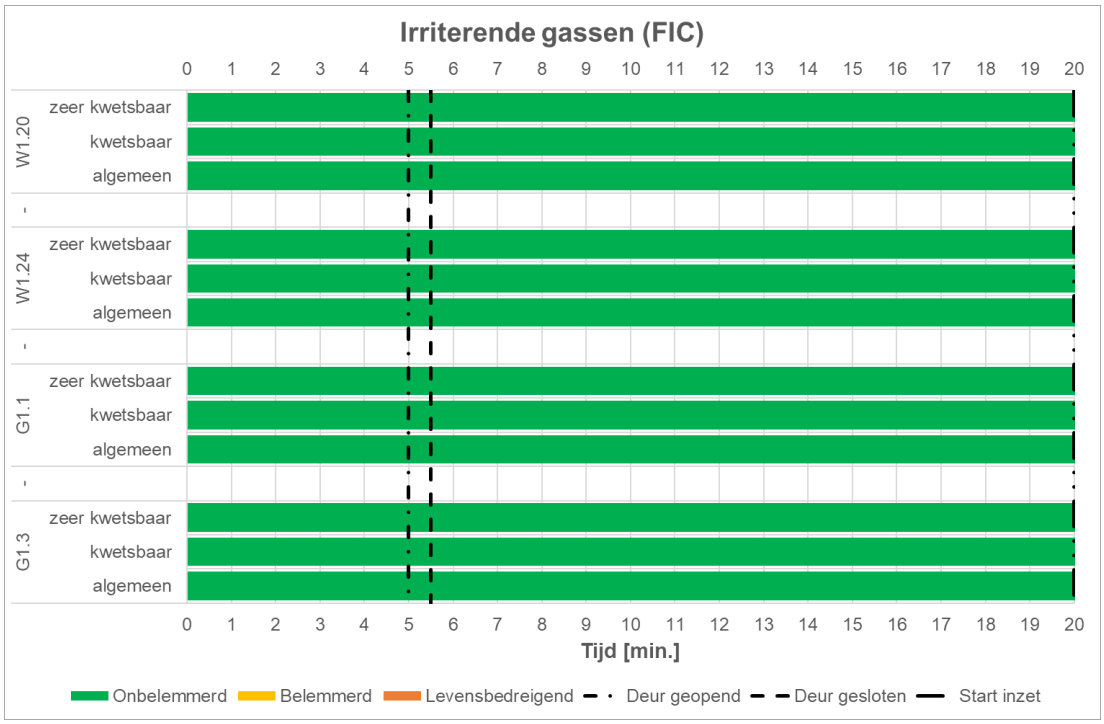


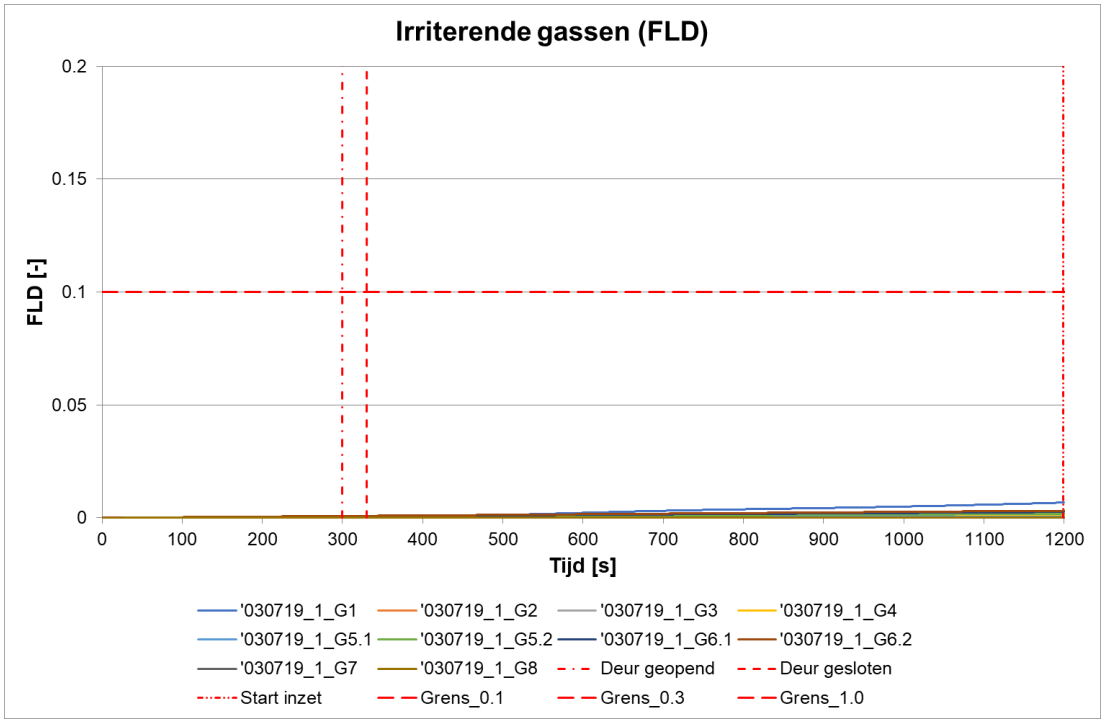
	Irritant gases (FIC)				
	Group	Threshold [-]	Safe [min.]	Impaired [min.]	Life-threatening [min.]
Fire room 1.21 G1	Highly vulnerable	0.1/0.5	21.8	> 55.0	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Residence 1.20 G2	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Residence 1.24 G3	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-

Residence 1.25 G4	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-


Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G5.1)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.1)
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Deur gesloten
Start inzet

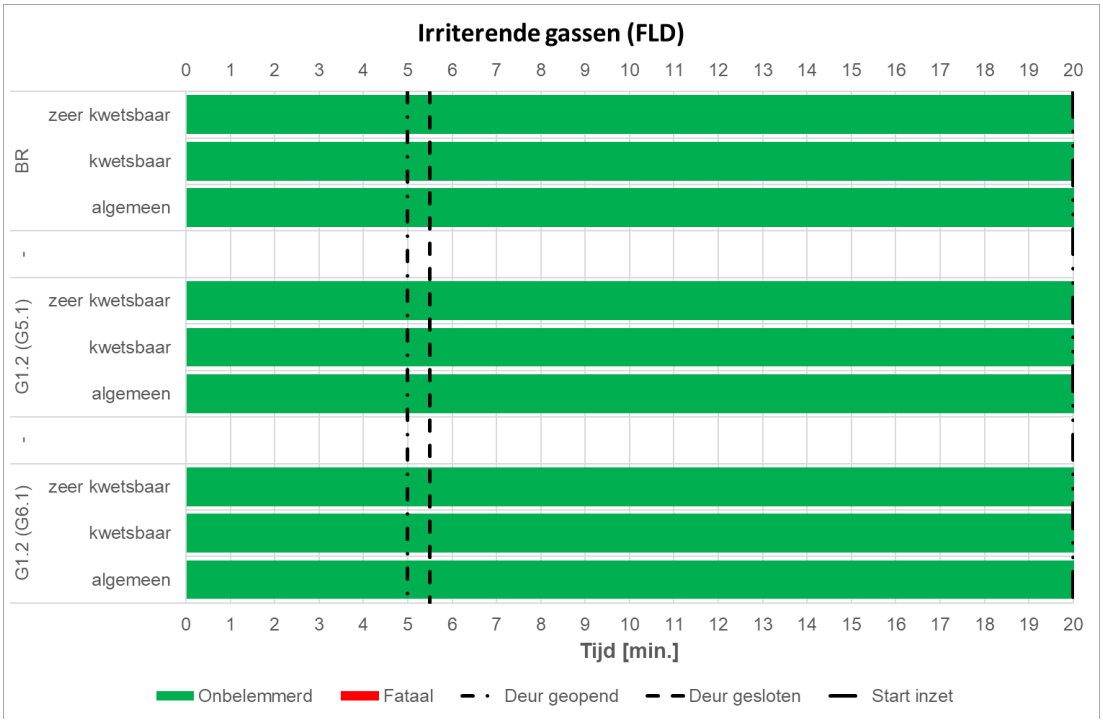

Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Deur gesloten
Start inzet


Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Deur gesloten
Start inzet

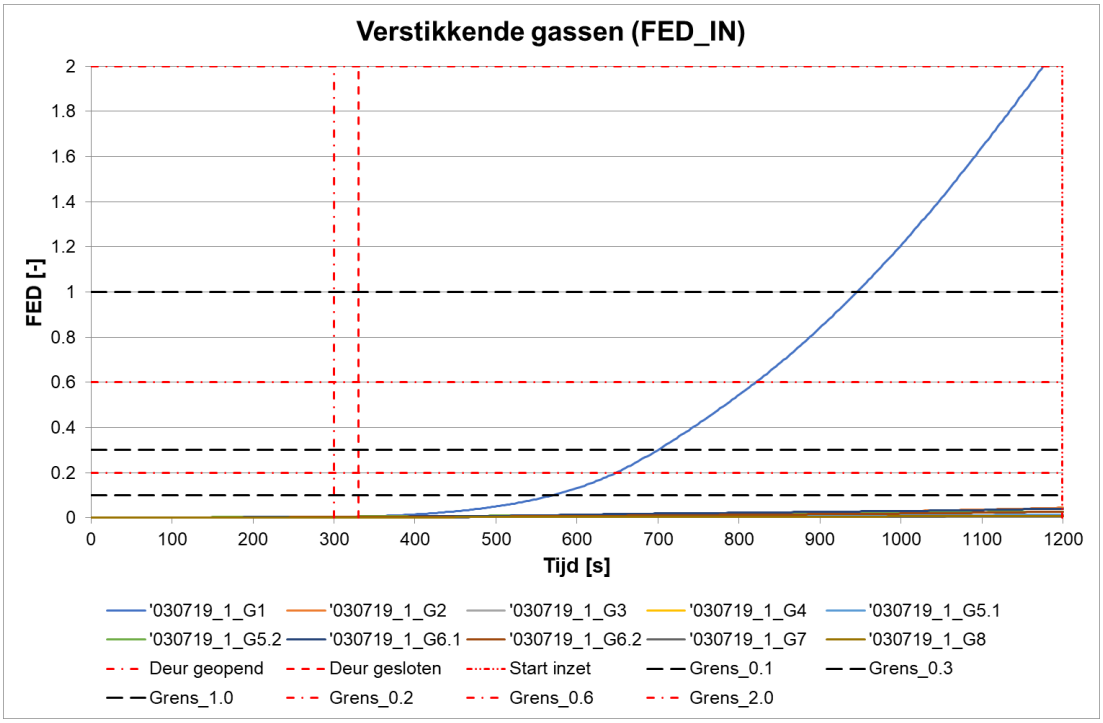

Irriterende gassen (FLD)
0.2
0.15
0.1
0.05
0
FLD [-]
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
Tijd [s]
'030719_1_G1
'030719_1_G2
'030719_1_G3
'030719_1_G4
'030719_1_G5.1
'030719_1_G5.2
'030719_1_G6.1
'030719_1_G6.2
'030719_1_G7
'030719_1_G8
Deur geopend
Deur gesloten
Start inzet
Grens_0.1
Grens_0.3
Grens_1.0

Irritant gases (FLD)				
	Group	Threshold [-]	Safe [min.]	Impaired [min.]
Fire room 1.21 G1	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.20 G2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.24 G3	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.25 G4	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G5.1	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G5.2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G6.1	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-

	General	1.0	> 55.0	-
Corridor 1.2 G6.2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.1 G7	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.3 G8	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-

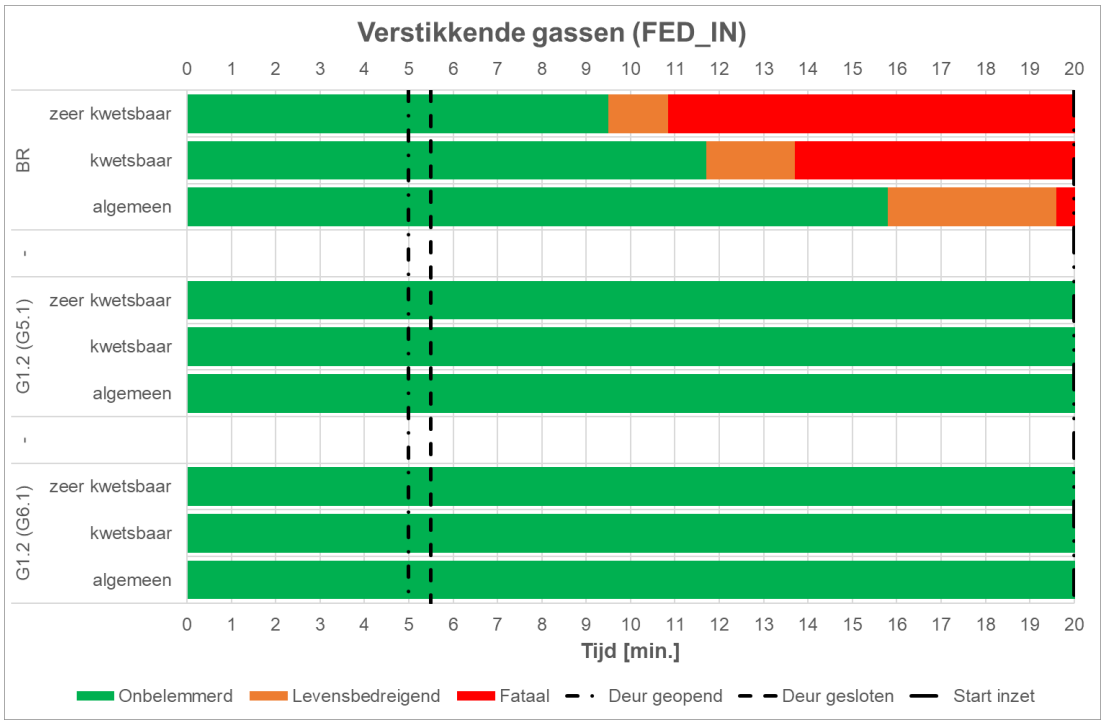


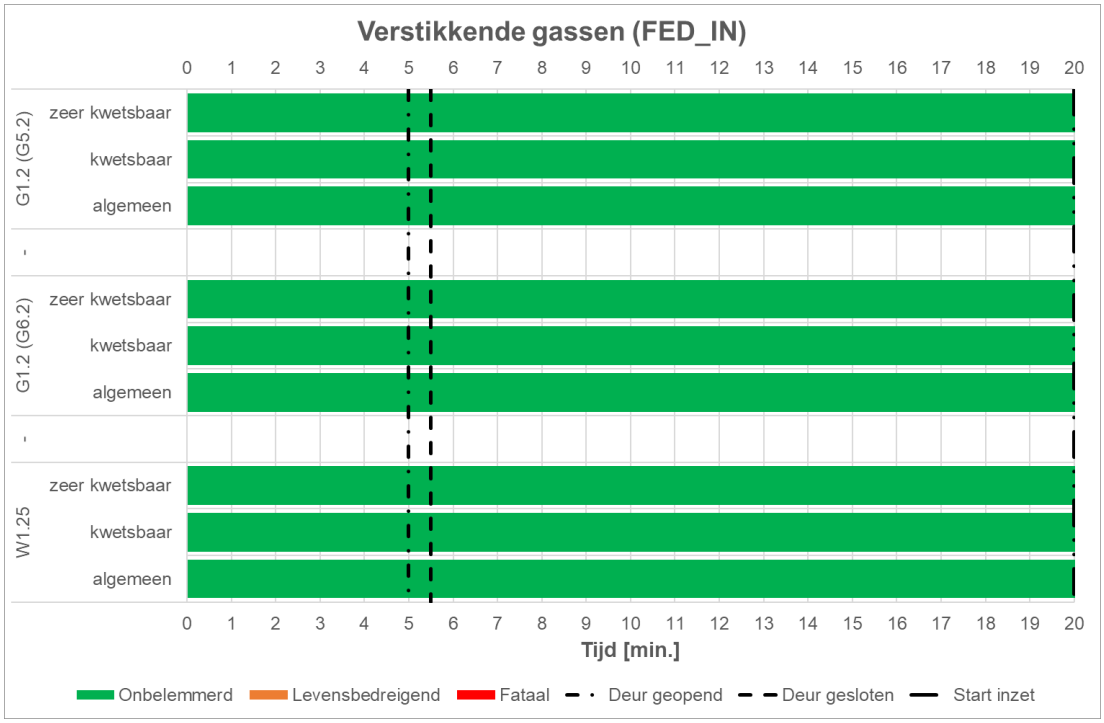
Asphyxiant gases

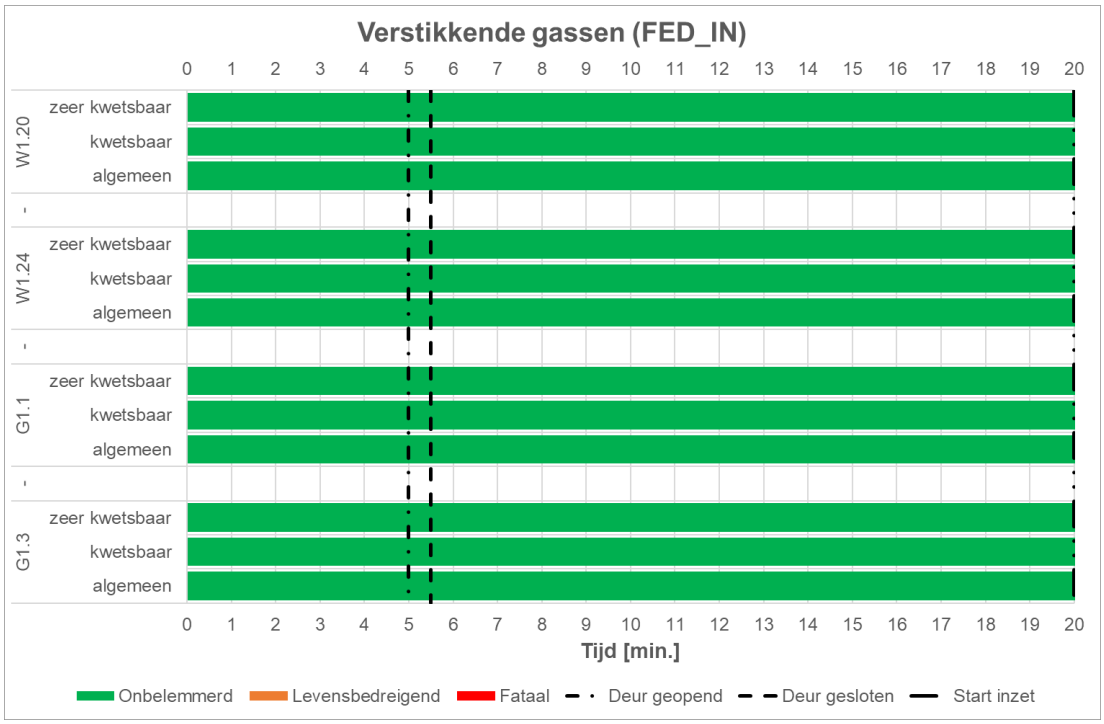


		Asphyxiant gases (FED_IN)			
	Group	Threshold [-]	Safe [min.]	Life-threatening [min.]	Fatal [min.]
Fire room 1.21 G1	Highly vulnerable	0.1/0.2	9.5	10.9	> 10.9
	Vulnerable	0.3/0.6	11.7	13.7	> 13.7
	General	1.0/2.0	15.8	19.6	> 19.6
Residence 1.20 G2	Highly vulnerable	0.1/0.2	27.9	35.7	> 35.7
	Vulnerable	0.3/0.6	39.3	42.1	> 42.1
	General	1.0/2.0	> 55.0	-	-
Residence 1.24 G3	Highly vulnerable	0.1/0.2	42.5	43.2	> 43.2
	Vulnerable	0.3/0.6	44.5	> 55.0	-
	General	1.0/2.0	> 55.0	-	-
Residence 1.25	Highly vulnerable	0.1/0.2	42.3	43.7	> 43.7

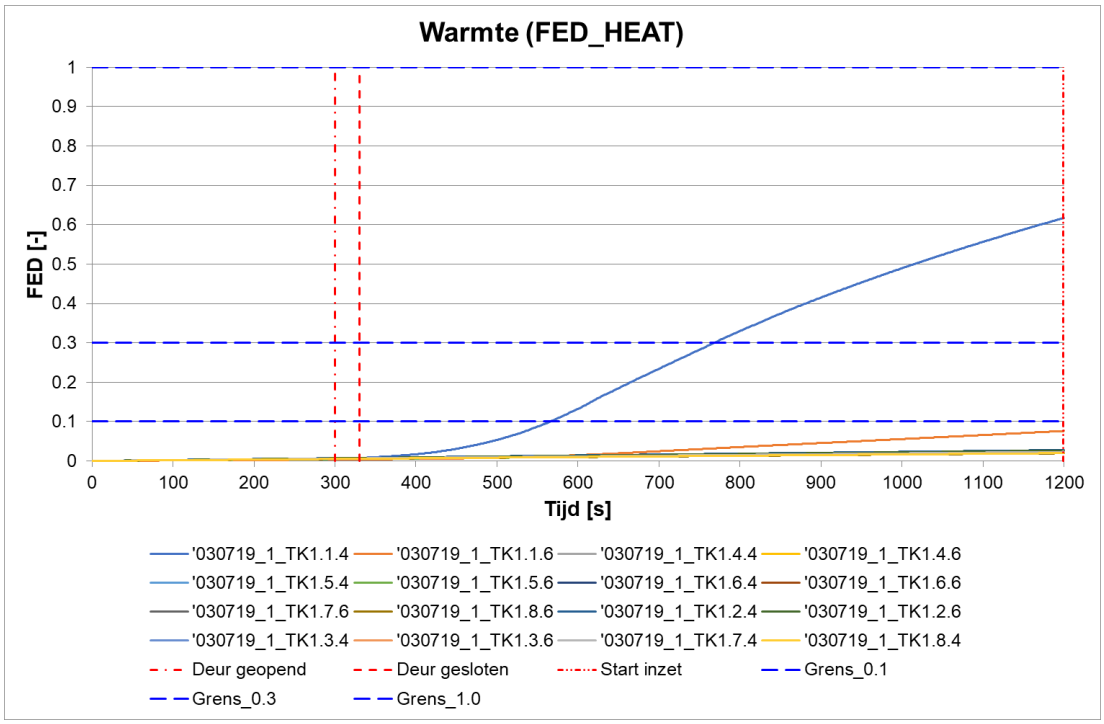
G4	Vulnerable	0.3/0.6	45.3	50.7	> 50.7
	General	1.0/2.0	> 55.0	-	-
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.2	36.7	38.0	> 38.0
	Vulnerable	0.3/0.6	39.3	42.8	> 42.8
	General	1.0/2.0	> 55.0	-	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.2	39.5	42.2	> 42.2
	Vulnerable	0.3/0.6	42.8	> 55.0	-
	General	1.0/2.0	> 55.0	-	-
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.2	37.1	38.0	> 38.0
	Vulnerable	0.3/0.6	38.5	39.6	> 39.6
	General	1.0/2.0	40.5	> 55.0	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.2	37.6	38.5	> 38.5
	Vulnerable	0.3/0.6	39.2	40.2	> 40.2
	General	1.0/2.0	> 55.0	-	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.2	47.5	51.7	> 51.7
	Vulnerable	0.3/0.6	54.9	> 55.0	
	General	1.0/2.0	> 55.0	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.2	> 55.0	-	-
	Vulnerable	0.3/0.6	> 55.0	-	-
	General	1.0/2.0	> 55.0	-	-


Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G5.1)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.1)
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet


Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

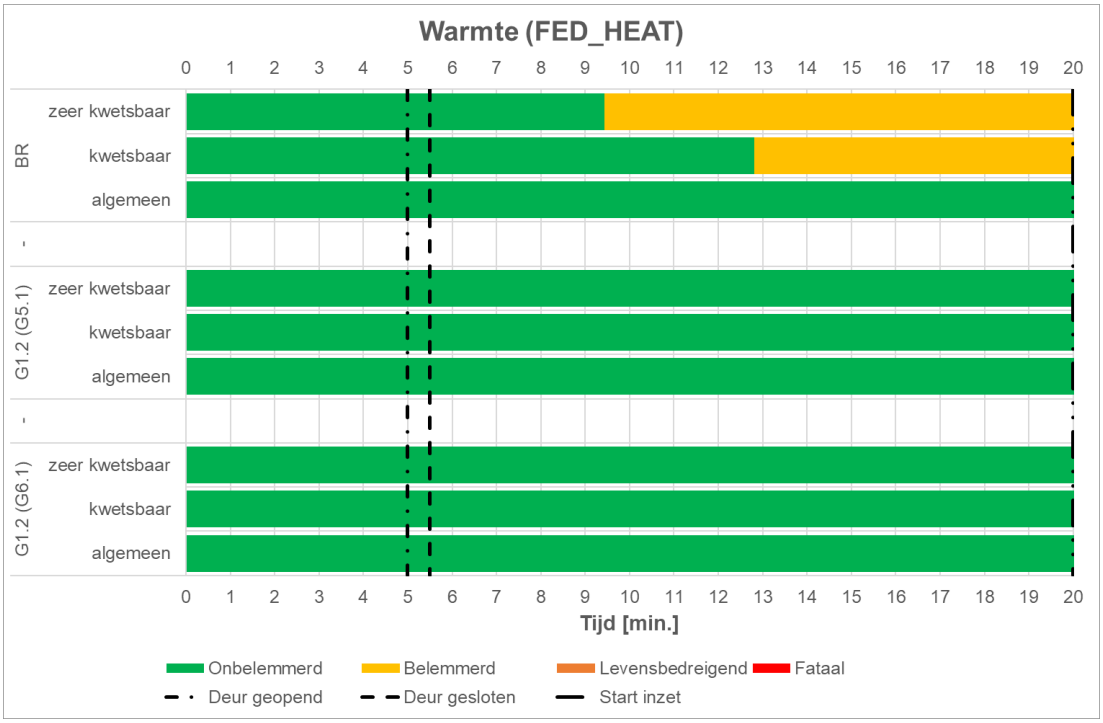

Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

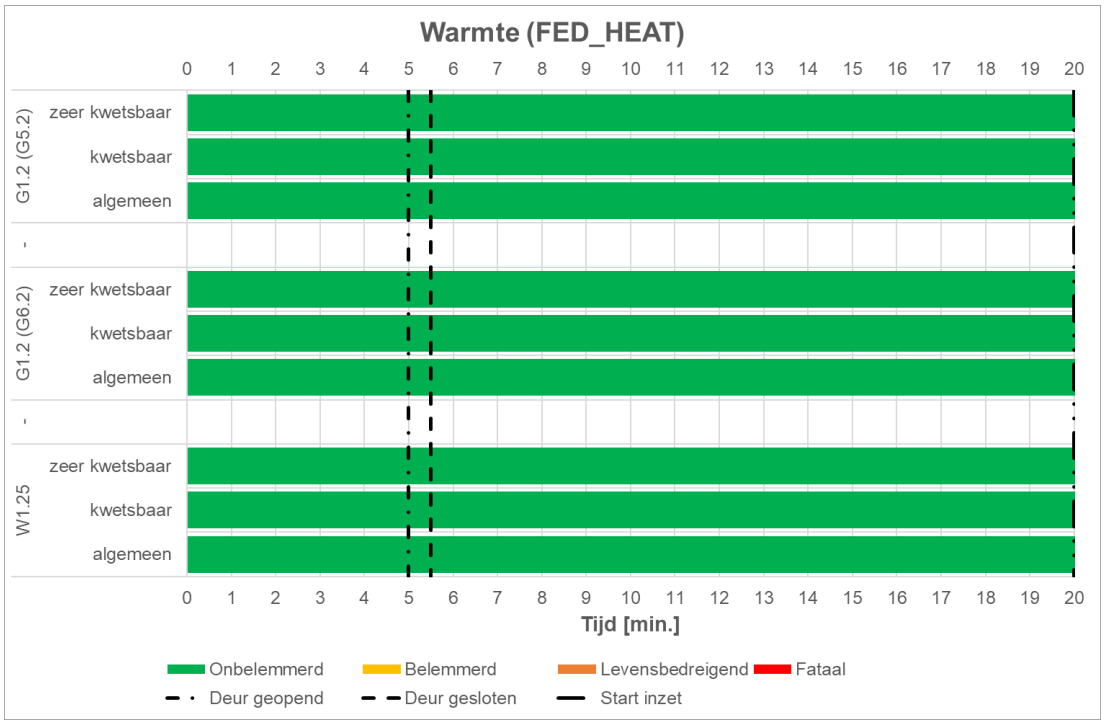
Heat

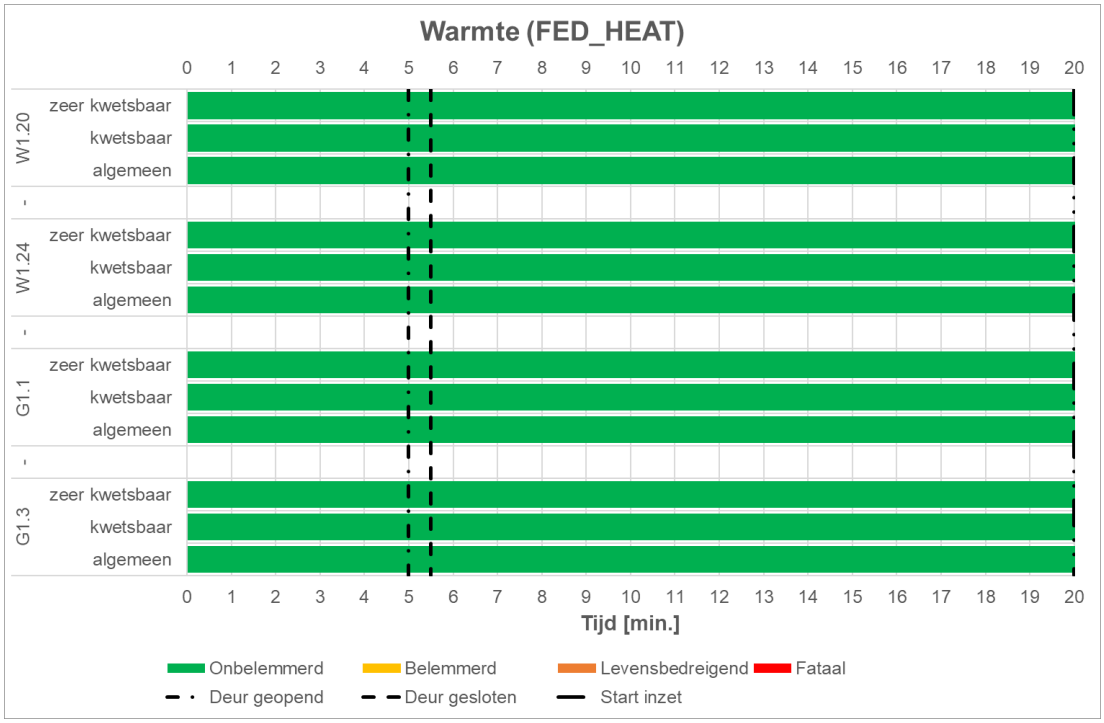

Warmte (FED_HEAT)
FED [-]
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
Tijd [s]
'030719_1_TK1.1.4
'030719_1_TK1.1.6
'030719_1_TK1.4.4
'030719_1_TK1.4.6
'030719_1_TK1.5.4
'030719_1_TK1.5.6
'030719_1_TK1.6.4
'030719_1_TK1.6.6
'030719_1_TK1.7.6
'030719_1_TK1.8.6
'030719_1_TK1.2.4
'030719_1_TK1.2.6
'030719_1_TK1.3.4
'030719_1_TK1.3.6
'030719_1_TK1.7.4
'030719_1_TK1.8.4
Deur geopend
Deur gesloten
Start inzet
Grens_0.1
Grens_0.3
Grens_1.0

Heat (FED_HEAT)						
	Group	Threshold [-]	Safe [min.]	Impaired [min.]	Life-threatening [min.]	Fatal [min.
Fire room 1.21 G1	Highly vulnerable	0.1/0.8/1.2	9.4	26.3	> 55.0	-
	Vulnerable	0.3/2.4/12.0	12.8	> 55.0	-	-
	General	1.0/8.0/12.0	46.4	> 55.0	-	-
Residence 1.20 G2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Residence 1.24 G3	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Residence 1.25 G4	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-

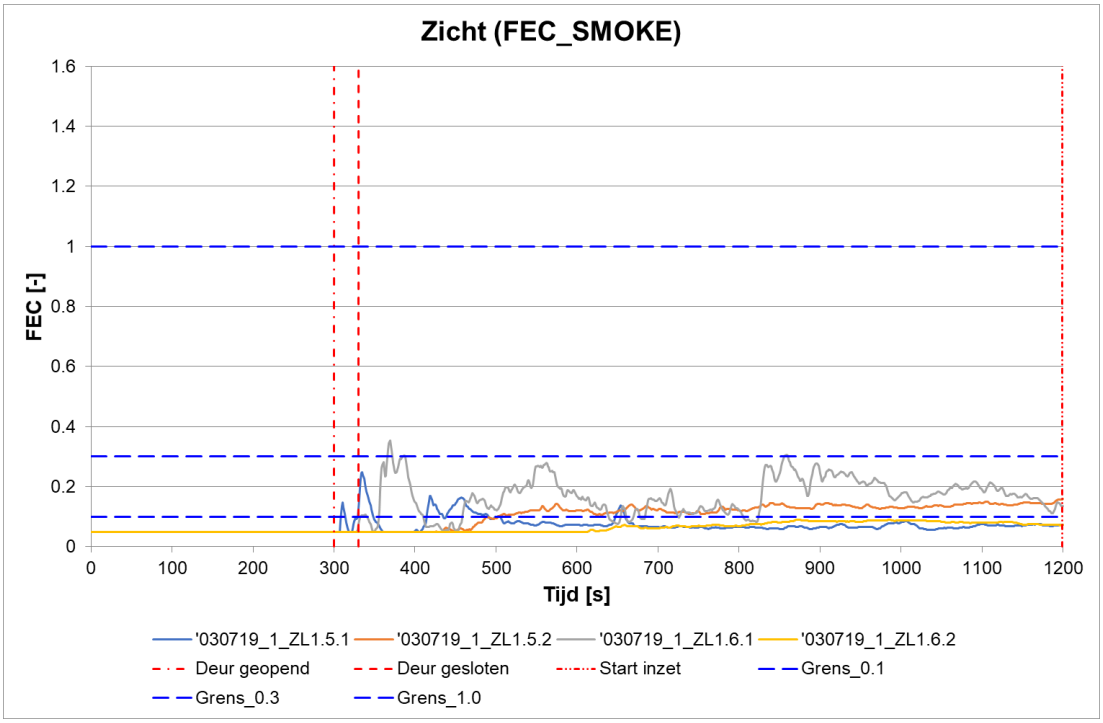
G6.1	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-




Warmte (FED_HEAT)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

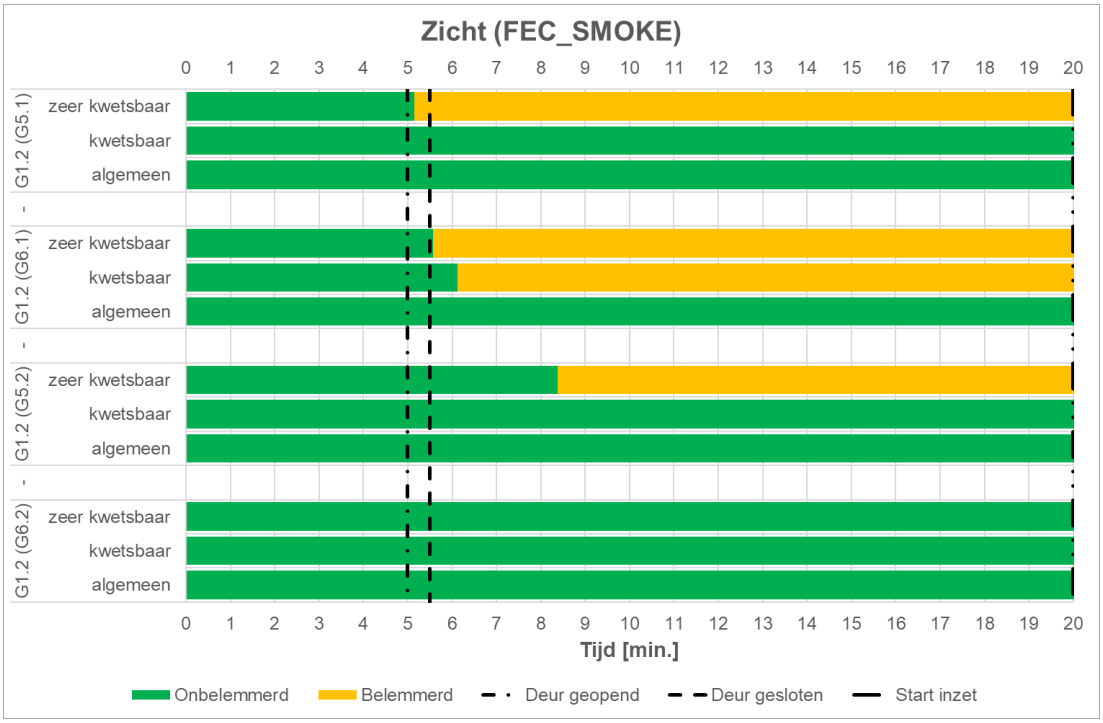

Warmte (FED_HEAT)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

Visibility

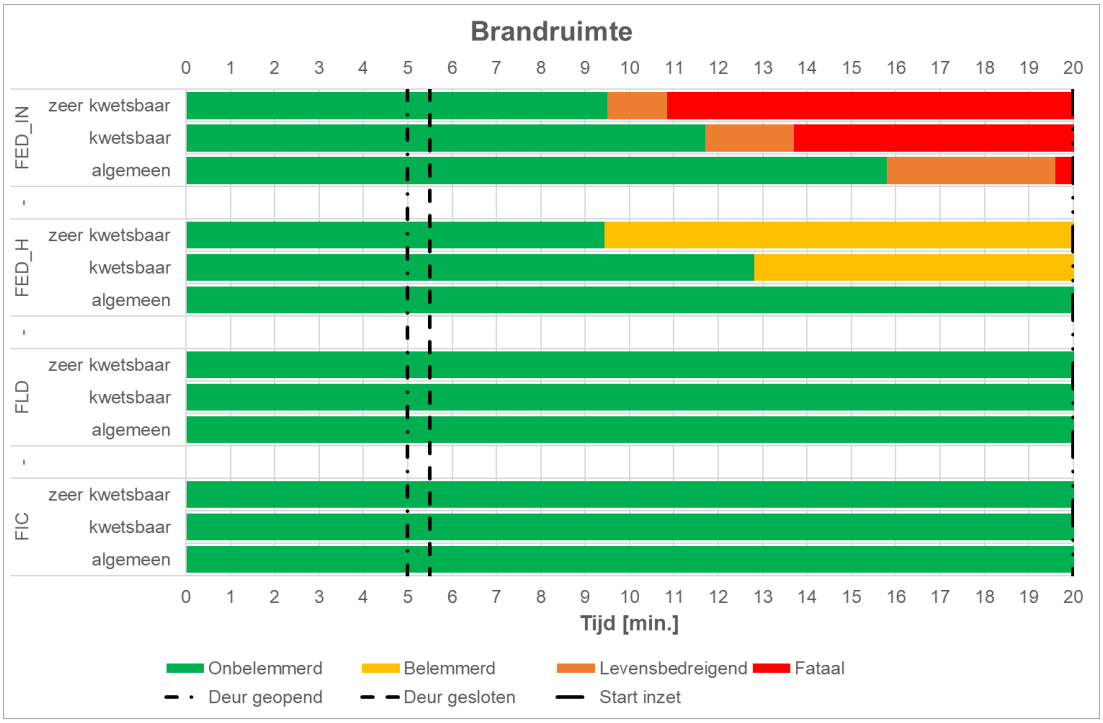


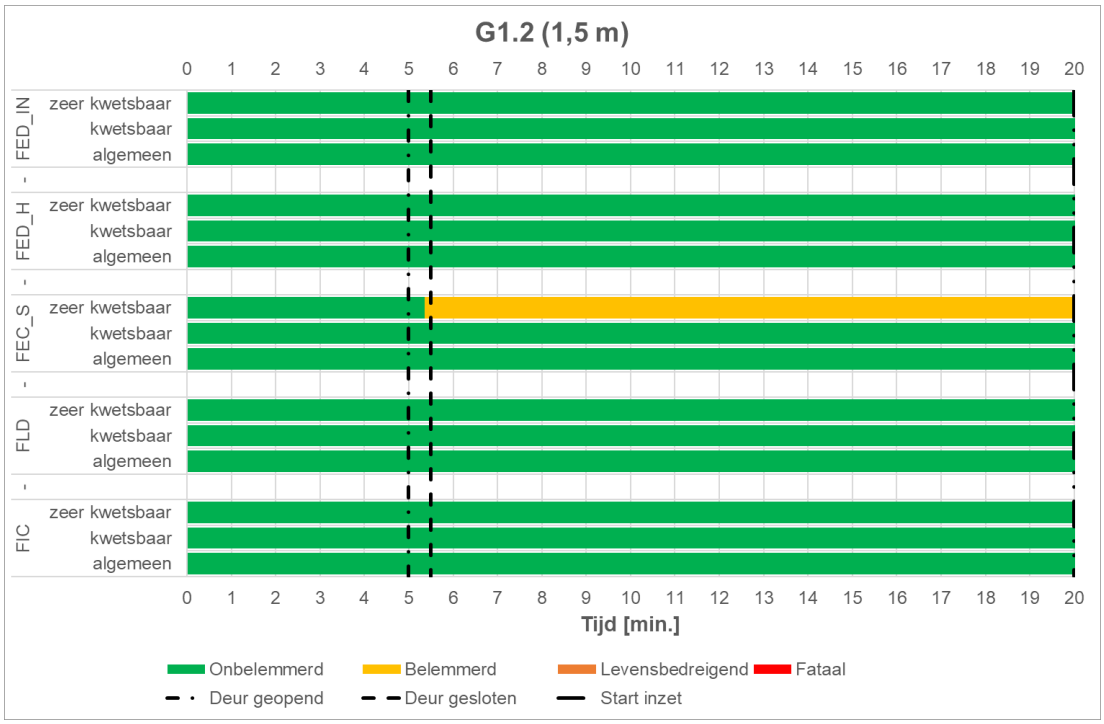
Visibility (FEC_SMOKE)				
	Group	Threshold [-]	Safe [min.]	Impaired [min.]
Corridor 1.2 G5.1	Highly vulnerable	0.1	5.2	> 5.2
	Vulnerable	0.3	35.5	> 35.5
	General	1.0	> 55.0	-
Corridor 1.2 G5.2	Highly vulnerable	0.1	8.4	> 8.4
	Vulnerable	0.3	37.6	> 37.6
	General	1.0	> 55.0	-
Corridor 1.2 G6.1	Highly vulnerable	0.1	5.6	> 5.6
	Vulnerable	0.3	6.1	> 6.1
	General	1.0	> 55.0	-

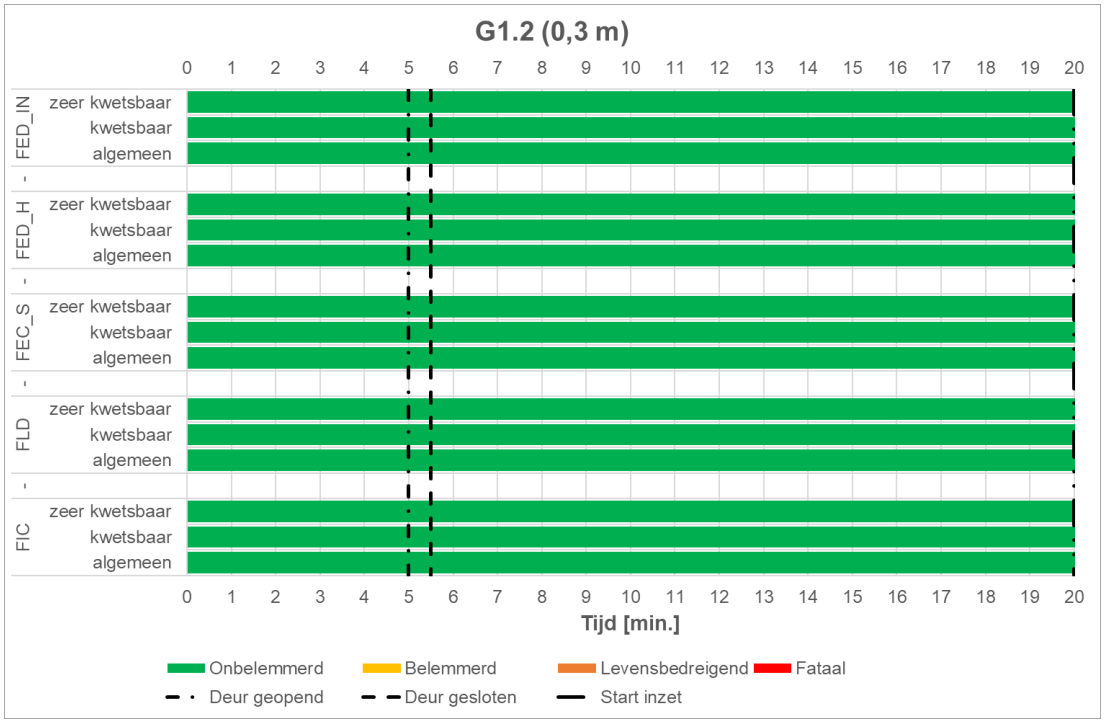
Corridor 1.2 G6.2	Highly vulnerable	0.1	37.2	> 37.2
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-



Overview

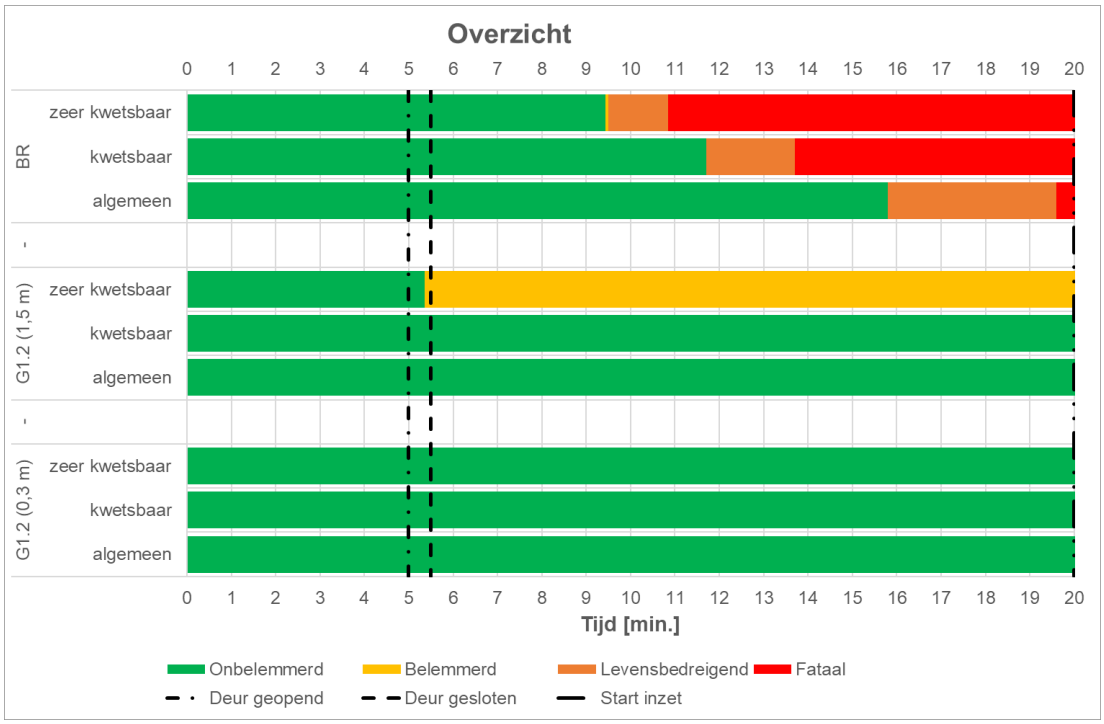


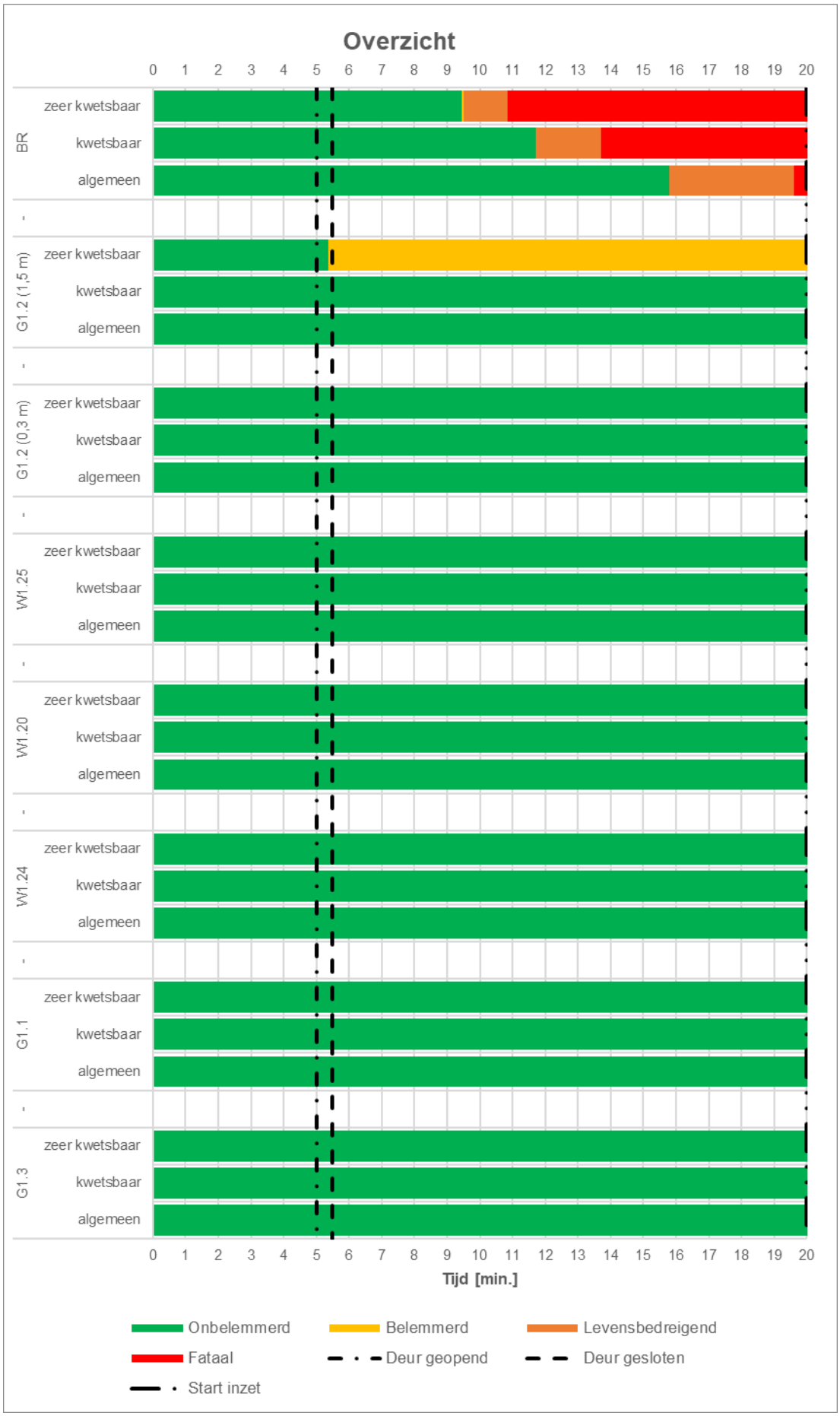

G1.2 (1,5 m)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
FED_IN
FED_H
FEC_S
FLD
FIC
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet


G1.2 (0,3 m)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
FED_IN
FED_H
FEC_S
FLD
FIC
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

	Overview	Escape		Survivability	
	Group	Safe [min.]	Impaired [min.]	Life-threatening [min.]	Fatal [min.]
Fire room 1.21 G1	Highly vulnerable	9.4	9.5	10.9	> 10.9
	Vulnerable	11.7	11.7	13.7	> 13.7
	General	15.8	15.8	19.6	> 19.6
Residence 1.20 G2	Highly vulnerable	27.9	27.9	35.7	> 35.7
	Vulnerable	39.3	39.3	42.1	> 42.1
	General	> 55.0	-	-	-
Residence 1.24 G3	Highly vulnerable	42.5	42.5	43.2	> 43.2
	Vulnerable	44.5	44.5	> 55.0	-
	General	> 55.0	-	-	-
Residence 1.25 G4	Highly vulnerable	42.3	42.3	43.7	> 43.7
	Vulnerable	45.3	45.3	50.7	> 50.7
	General	> 55.0	-	-	-
Corridor 1.2 G5.1	Highly vulnerable	5.2	36.7	38.0	> 38.0
	Vulnerable	35.5	39.3	42.8	> 42.8
	General	> 55.0	-	-	-
Corridor 1.2 G5.2	Highly vulnerable	8.4	39.5	42.2	> 42.2
	Vulnerable	37.6	42.8	> 55.0	-
	General	> 55.0	-	-	-
Corridor 1.2	Highly vulnerable	5.6	37.1	38.0	> 38.0

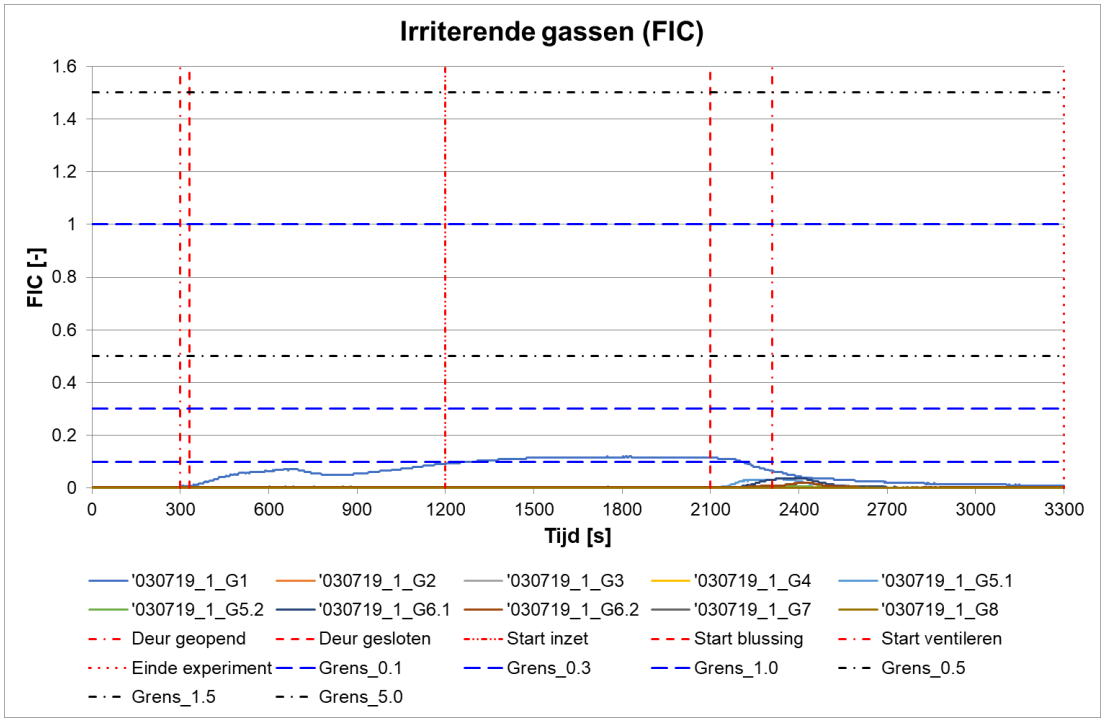
G6.1	Vulnerable	6.1	38.5	39.6	> 39.6
	General	40.5	40.5	> 55.0	-
Corridor 1.2 G6.2	Highly vulnerable	37.2	37.6	38.5	> 38.5
	Vulnerable	39.2	39.2	40.2	> 40.2
	General	> 55.0	-	-	-
Corridor 1.1 G7	Highly vulnerable	47.5	47.5	51.7	> 51.7
	Vulnerable	54.9	54.9	> 55.0	-
	General	> 55.0	-	-	-
Corridor 1.3 G8	Highly vulnerable	> 55.0	-	-	-
	Vulnerable	> 55.0	-	-	-
	General	> 55.0	-	-	-

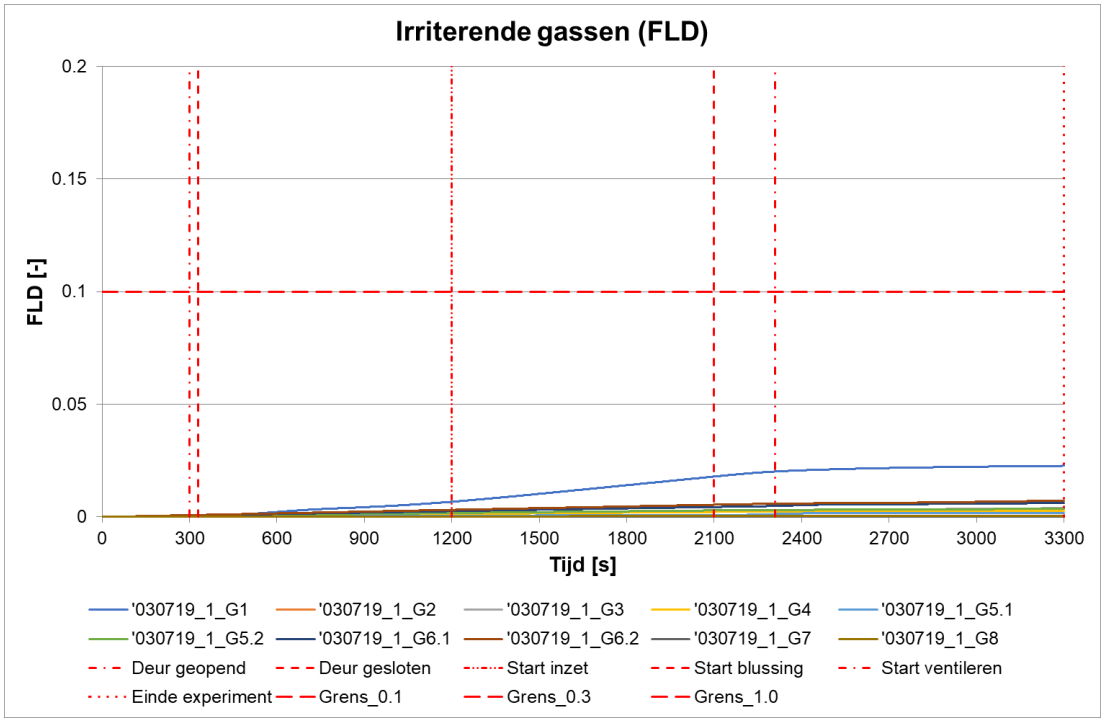



Overzicht
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (1,5 m)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (0,3 m)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

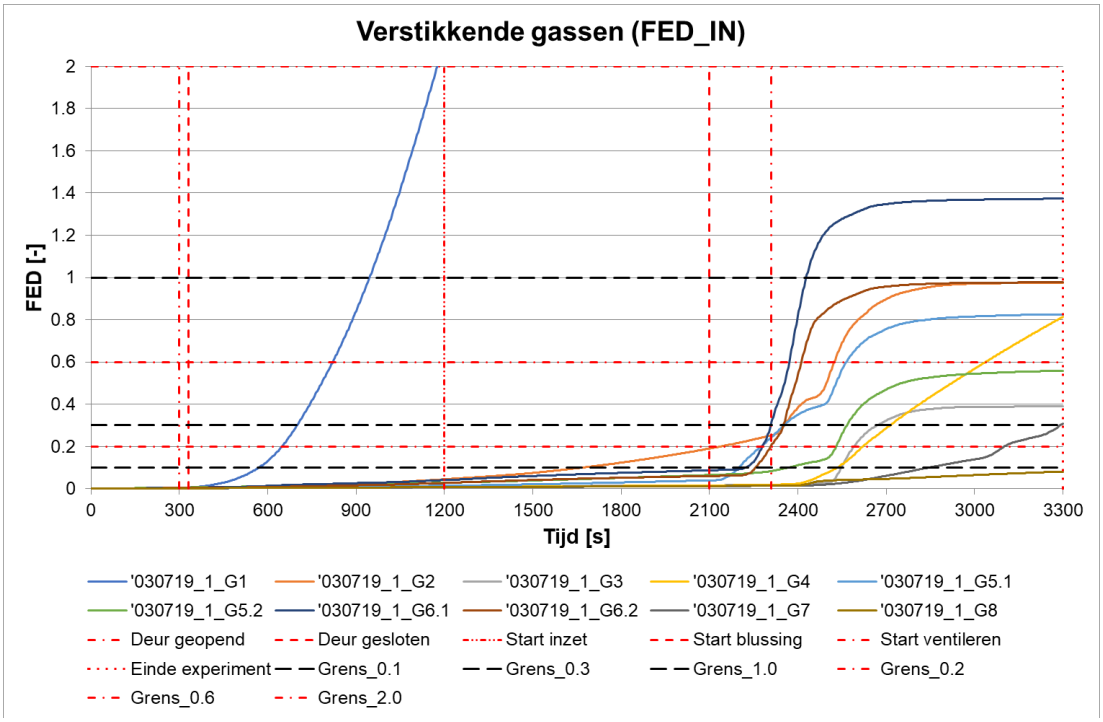
C. Deployment phase (20 - 55 minutes)

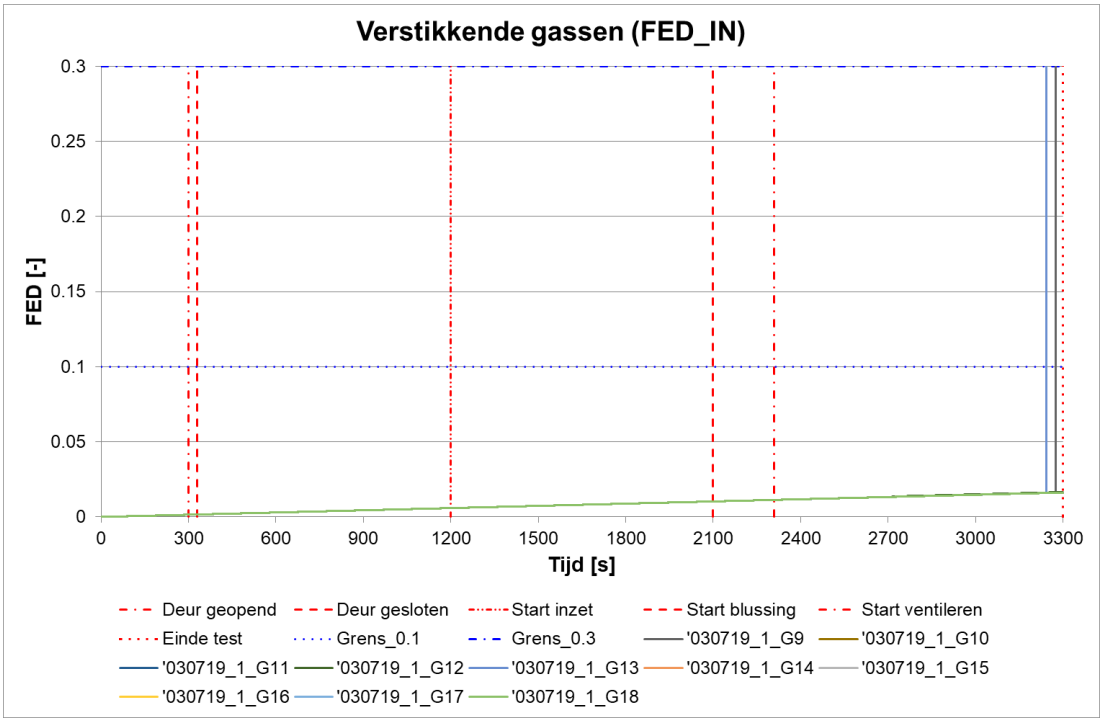
Irritant gases



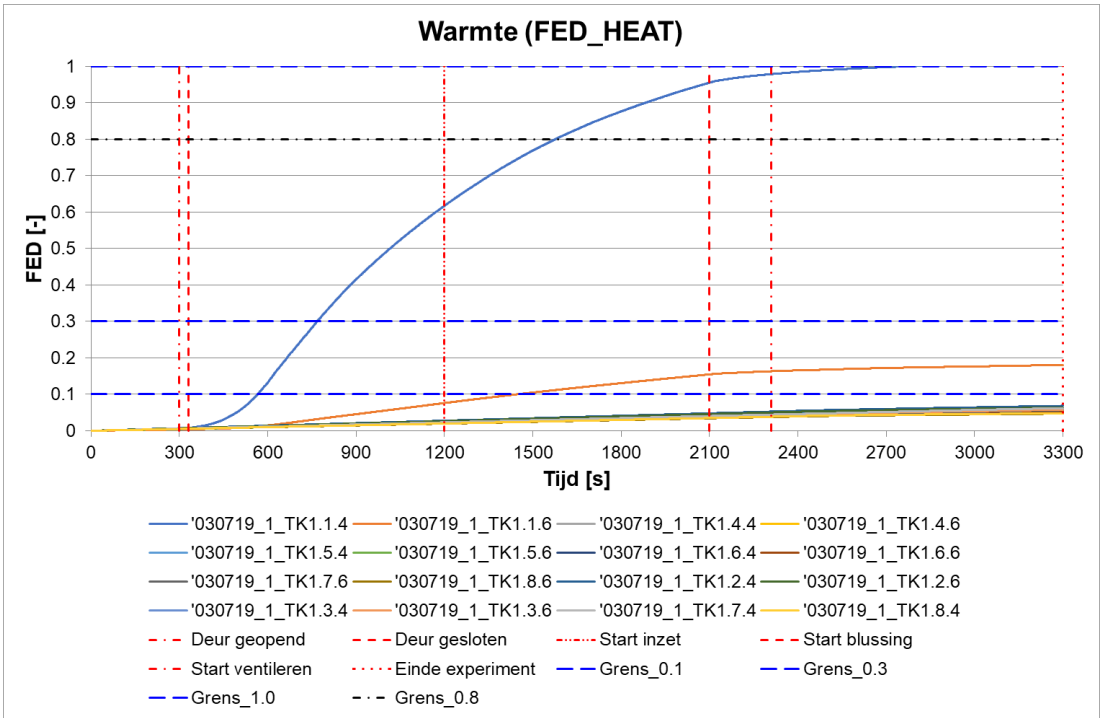


Asphyxiant gases

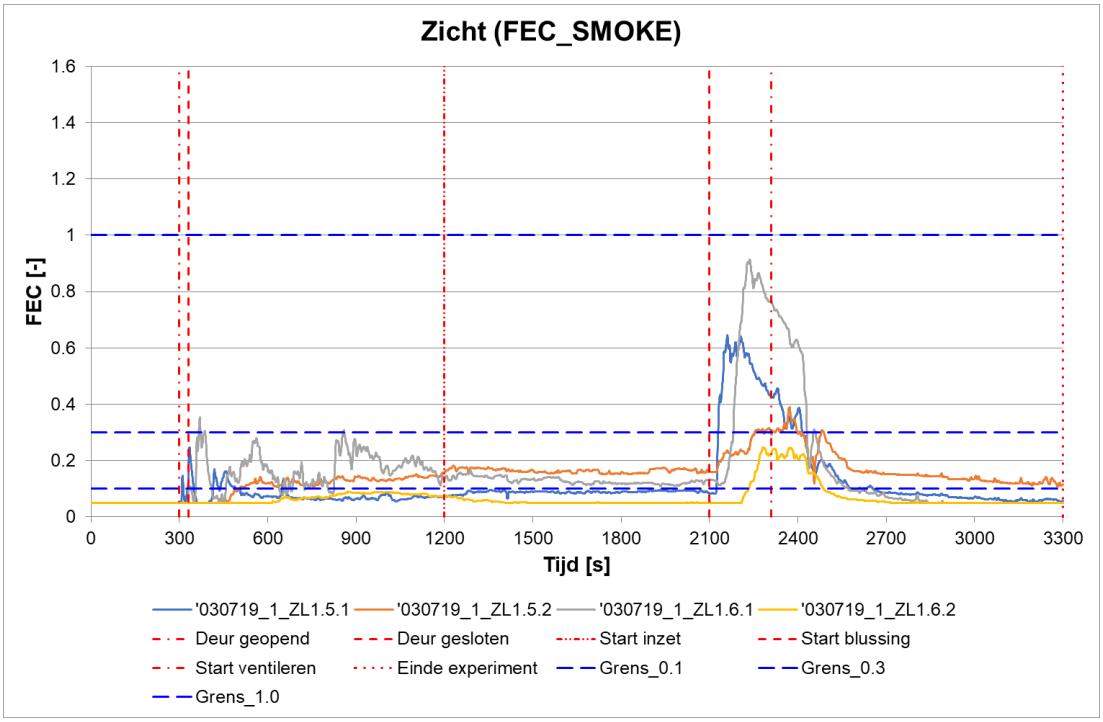




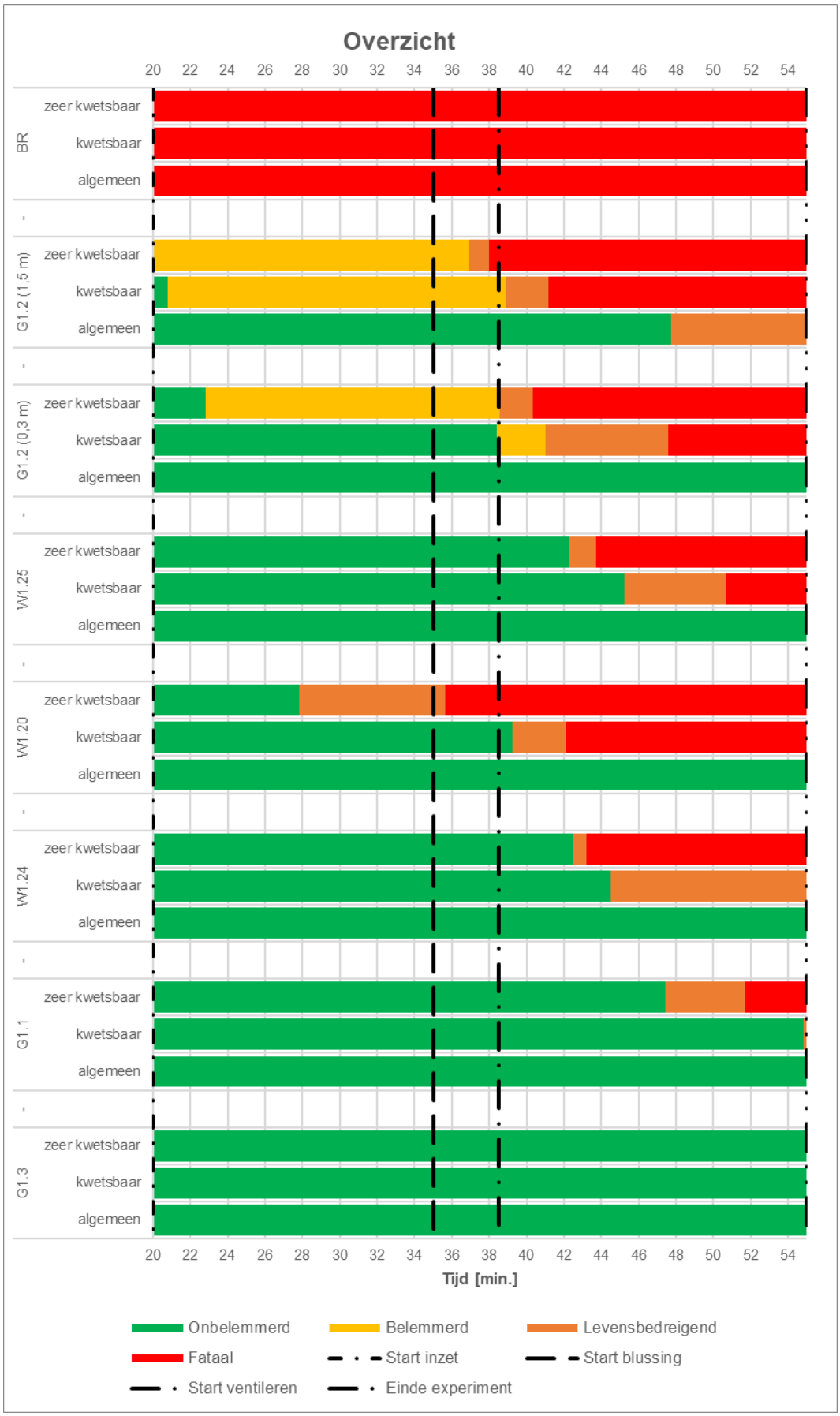
Heat



Visibility



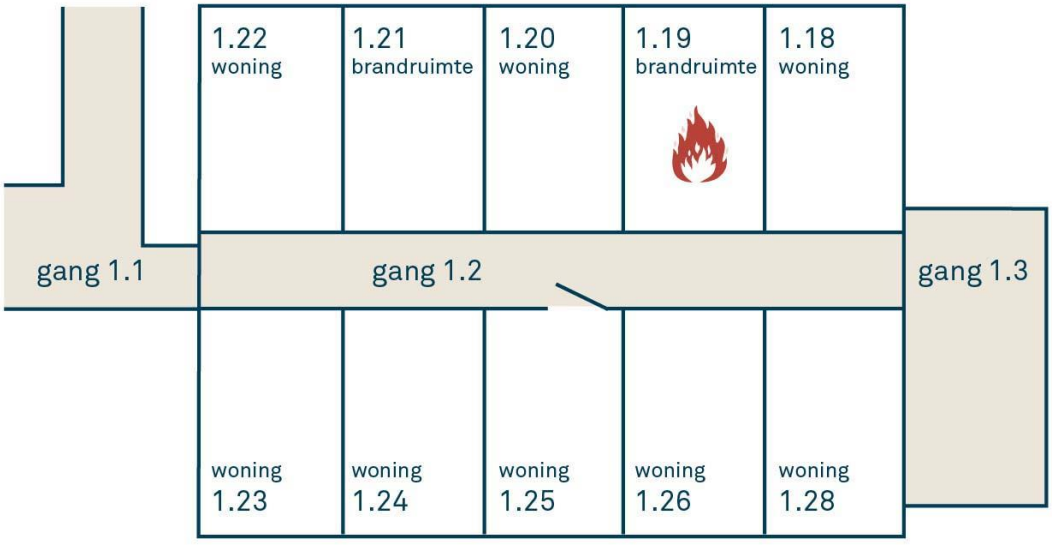
Overview


Overzicht
20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54
BR
G1.2 (1,5 m)
G1.2 (0,3 m)
W1.25
W1.20
W1.24
G1.1
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
-
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Start inzet
Start blussing
Start ventileren
Einde experiment

Test 15 (variant 6: organic fire load and door open) 03/07/19

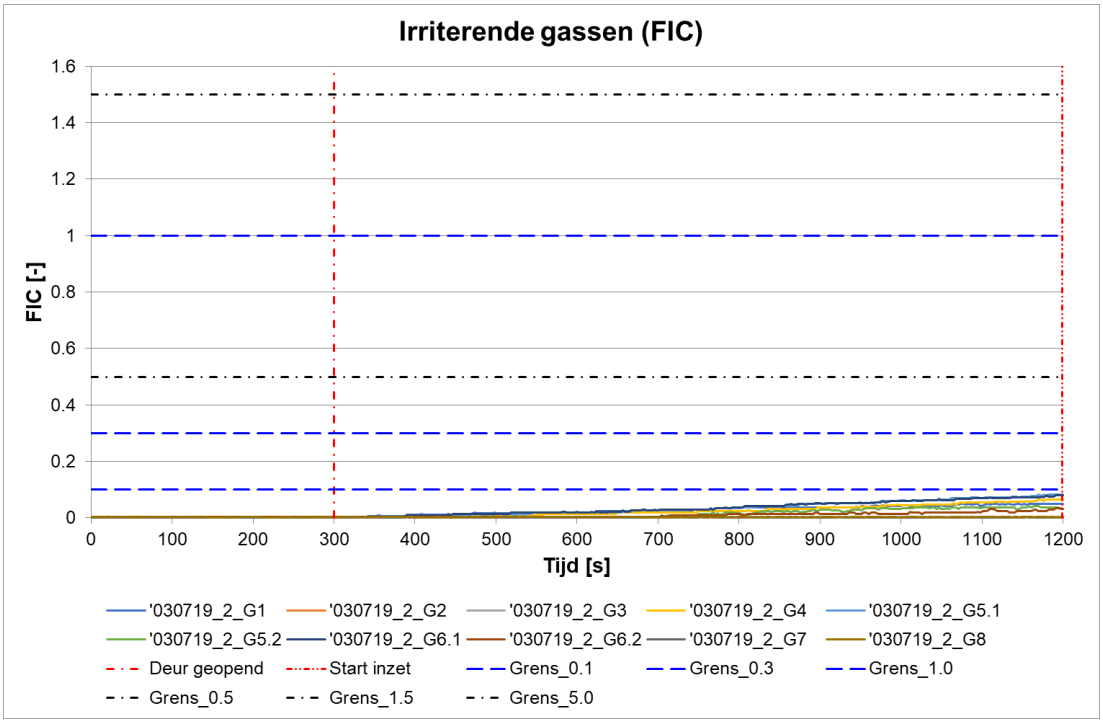
A. Description of the test

Test number	15
Date	03/07/2019
Morning / afternoon	Afternoon
Fire room	1.19
Door to the fire room open / closed	Open
Fire service deployment	Offensive interior attack
Extra measures	Organic fire load
Specific aspects	Gas meter suction hose G13 came out due to the deployment crew stepping onto it



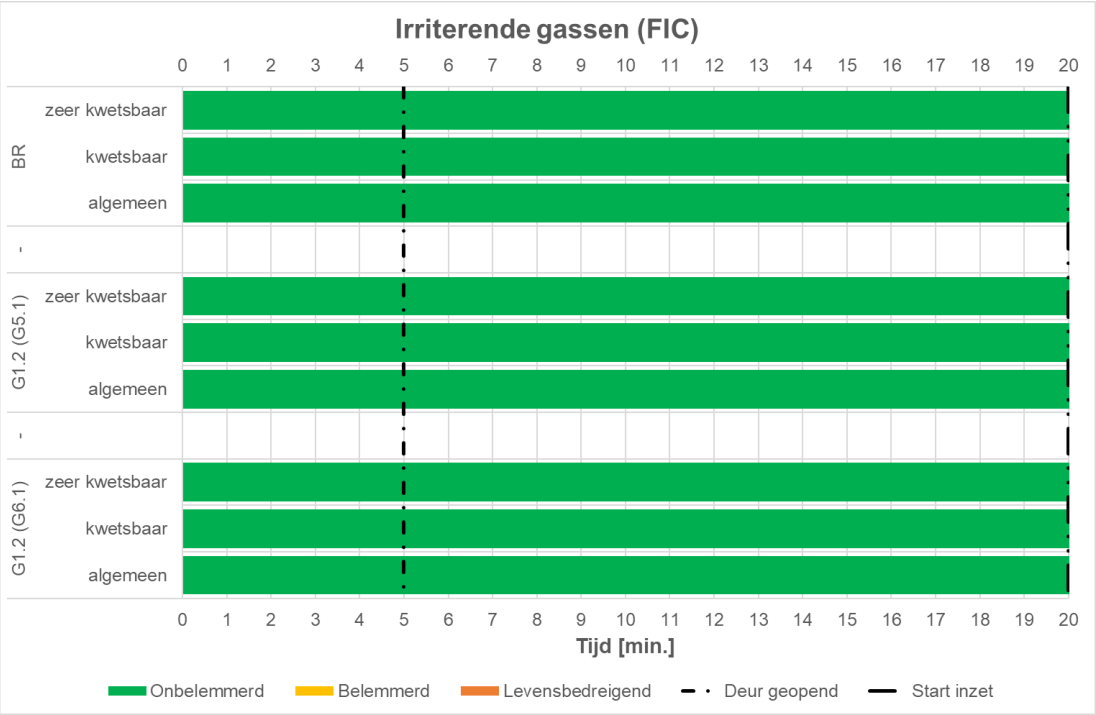
B. Escape phase (0 - 20 minutes)

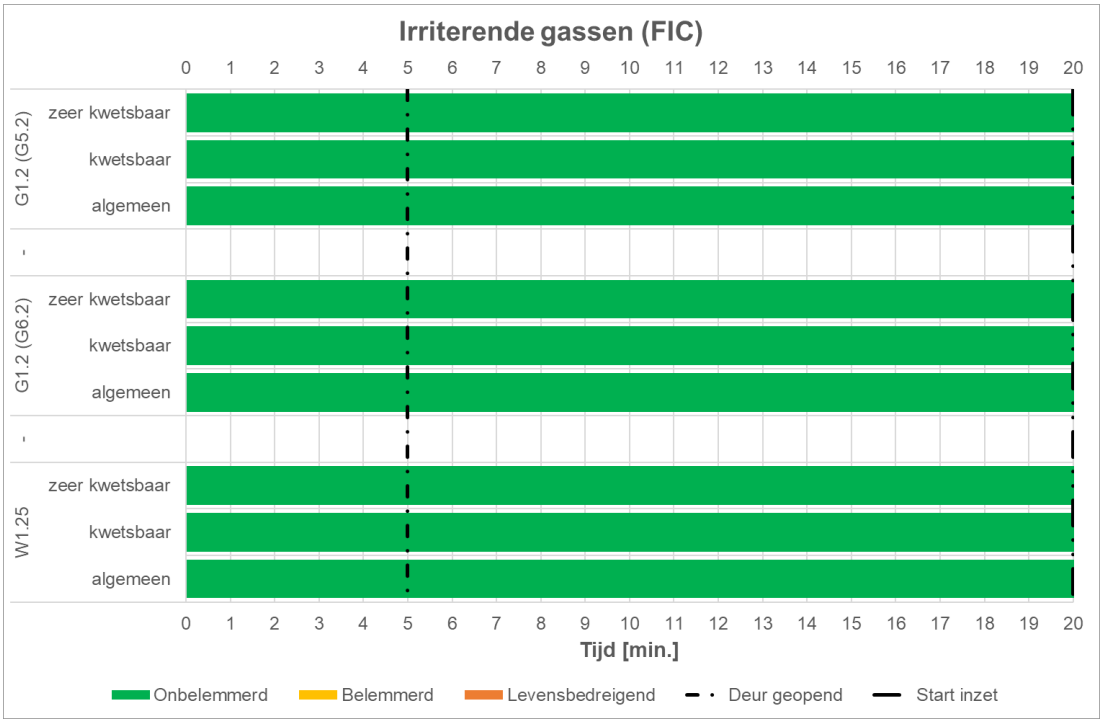
Irritant gases

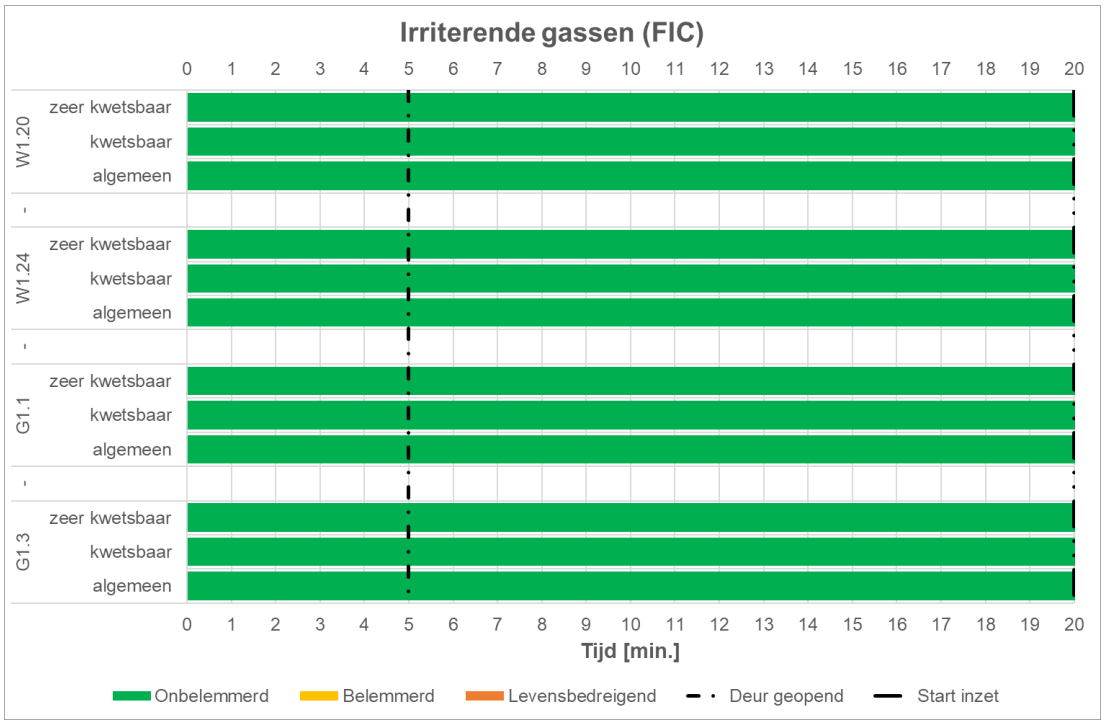


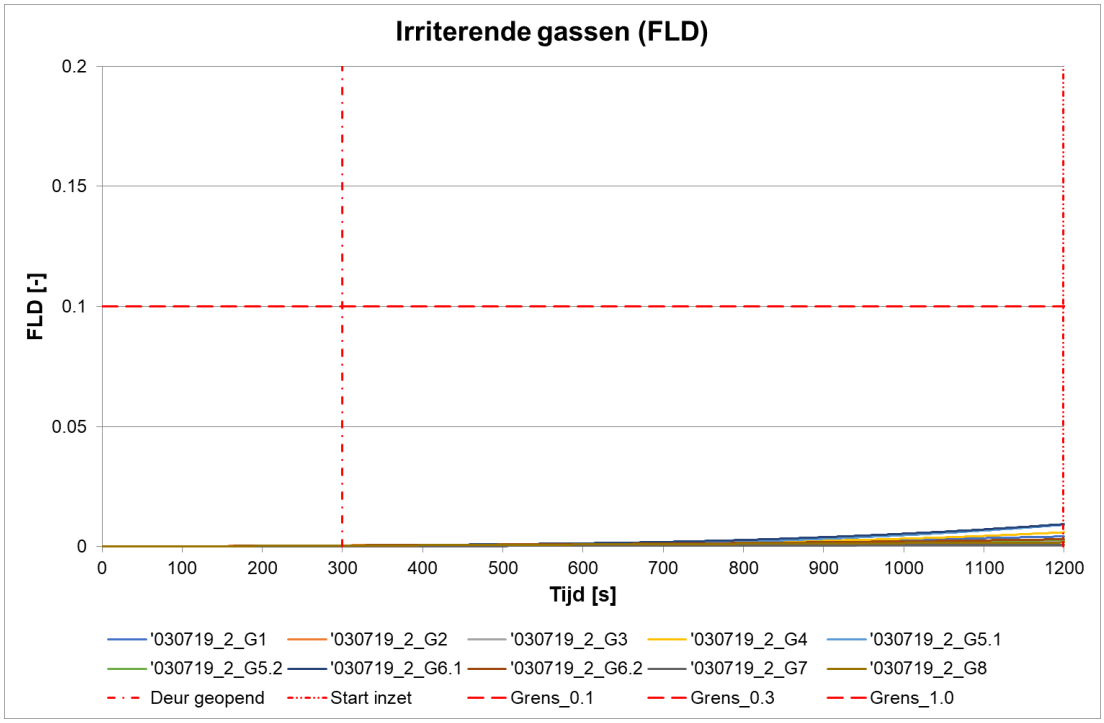
		Irritant gases (FIC)			
	Group	Threshold [-]	Safe [min.]	Impaired [min.]	Life-threatening [min.]
Fire room 1.19 G1	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Residence 1.20 G2	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Residence 1.24 G3	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-

Residence 1.25 G4	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-


Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G5.1)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.1)
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Start inzet

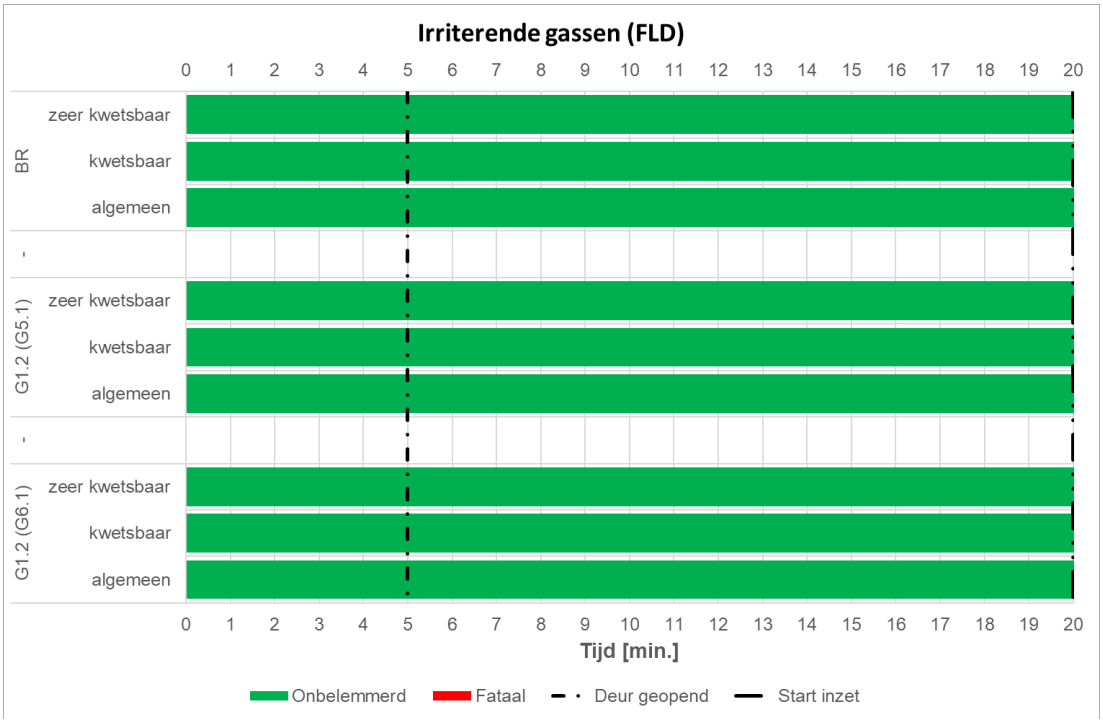

Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Start inzet


Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Start inzet

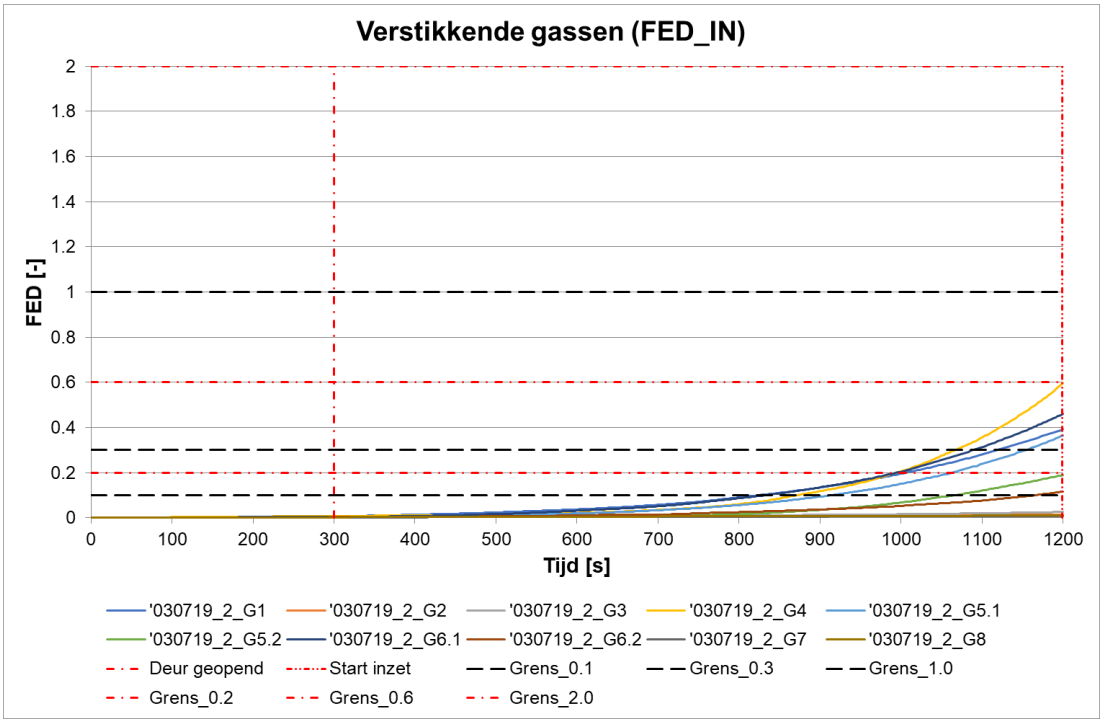

Irriterende gassen (FLD)
0.2
0.15
0.1
0.05
0
FLD [-]
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
Tijd [s]
'030719_2_G1
'030719_2_G2
'030719_2_G3
'030719_2_G4
'030719_2_G5.1
'030719_2_G5.2
'030719_2_G6.1
'030719_2_G6.2
'030719_2_G7
'030719_2_G8
Deur geopend
Start inzet
Grens_0.1
Grens_0.3
Grens_1.0

Irritant gases (FLD)				
	Group	Threshold [-]	Safe [min.]	Impaired [min.]
Fire room 1.19 G1	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.20 G2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.24 G3	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.25 G4	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G5.1	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G5.2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G6.1	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-

	General	1.0	> 55.0	-
Corridor 1.2 G6.2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.1 G7	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.3 G8	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-

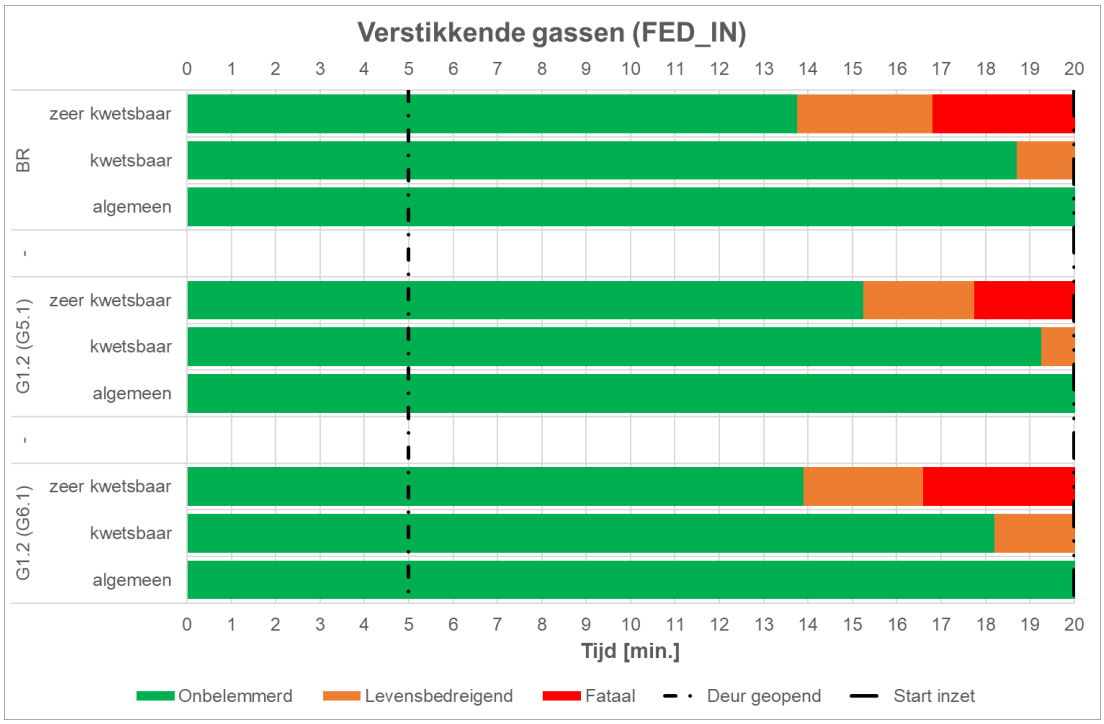


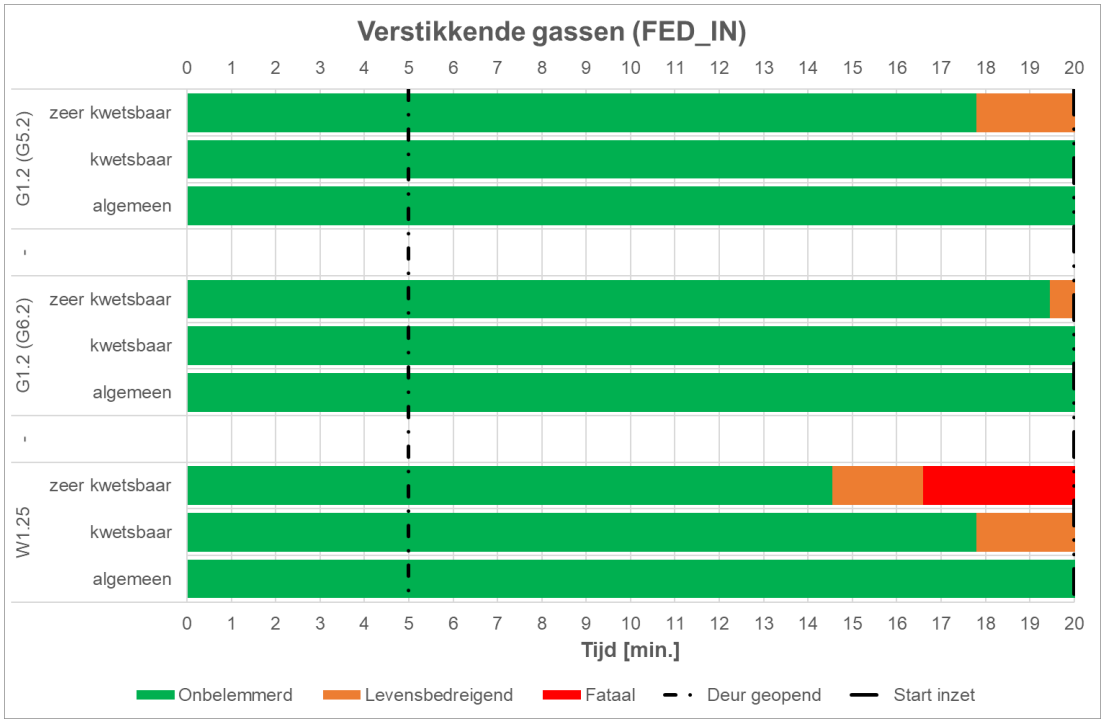
Asphyxiant gases

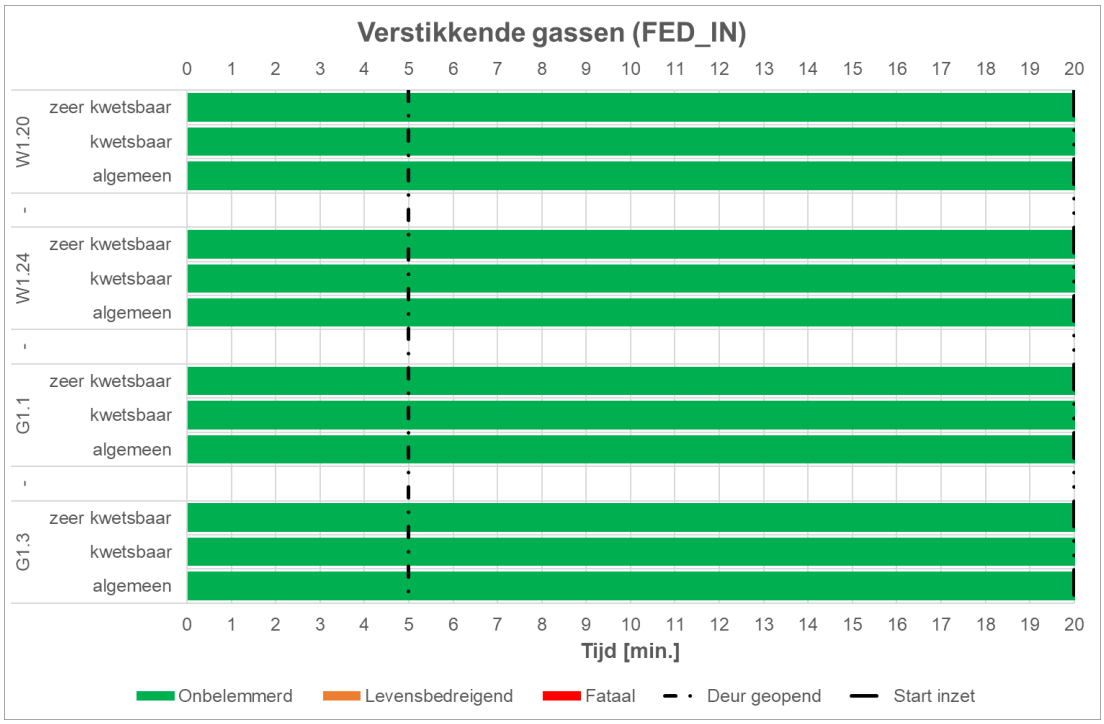


	Asphyxiant gases (FED_IN)				
	Group	Threshold [-]	Safe [min.]	Life-threatening [min.]	Fatal [min.]
Fire room 1.19 or 1.21 G1	Highly vulnerable	0.1/0.2	13.8	16.8	> 16.8
	Vulnerable	0.3/0.6	18.7	22.2	> 22.2
	General	1.0/2.0	27.3	> 55.0	-
Residence 1.20 G2	Highly vulnerable	0.1/0.2	26.1	27.7	> 27.7
	Vulnerable	0.3/0.6	29.2	34.2	> 34.2
	General	1.0/2.0	> 55.0	-	-
Residence 1.24 G3	Highly vulnerable	0.1/0.2	28.2	32.3	> 32.3
	Vulnerable	0.3/0.6	36.6	> 55.0	-
	General	1.0/2.0	> 55.0	-	-
Residence 1.25	Highly vulnerable	0.1/0.2	14.6	16.6	> 16.6

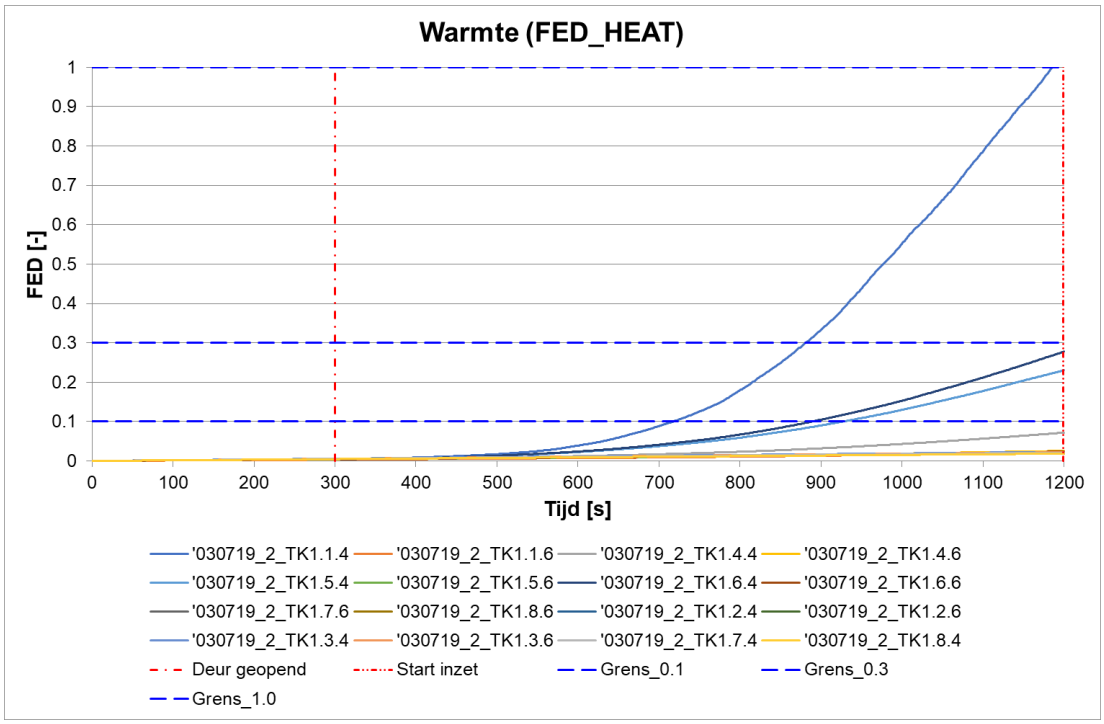
G4	Vulnerable	0.3/0.6	17.8	20.1	> 20.1
	General	1.0/2.0	22.0	25.7	> 25.7
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.2	15.3	17.8	> 17.8
	Vulnerable	0.3/0.6	19.3	22.4	> 22.4
	General	1.0/2.0	25.9	> 55.0	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.2	17.8	20.3	> 20.3
	Vulnerable	0.3/0.6	21.8	26.3	> 26.3
	General	1.0/2.0	42.0	> 55.0	-
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.2	13.9	16.6	> 16.6
	Vulnerable	0.3/0.6	18.2	21.4	> 21.4
	General	1.0/2.0	24.8	> 55.0	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.2	19.5	24.0	> 24.0
	Vulnerable	0.3/0.6	25.7	37.7	> 37.7
	General	1.0/2.0	> 55.0	-	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.2	35.0	41.0	> 41.0
	Vulnerable	0.3/0.6	46.3	> 55.0	-
	General	1.0/2.0	> 55.0	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.2	47.5	> 55.0	-
	Vulnerable	0.3/0.6	> 55.0	-	-
	General	1.0/2.0	> 55.0	-	-


Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G5.1)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.1)
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet


Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet

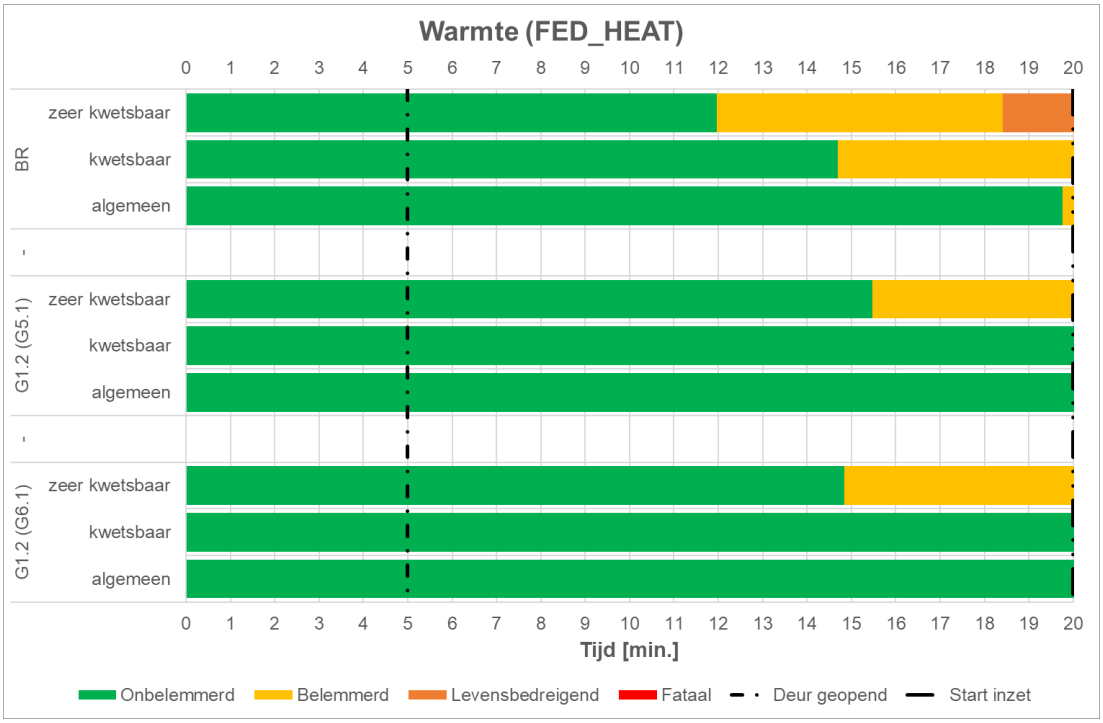

Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet

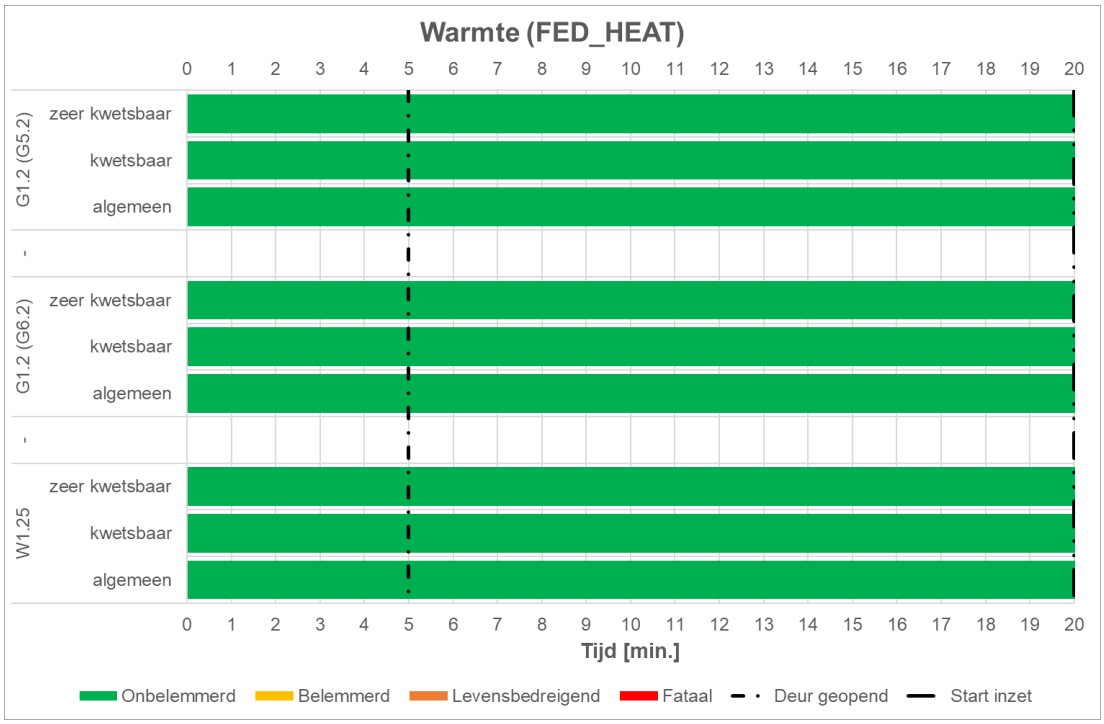
Heat

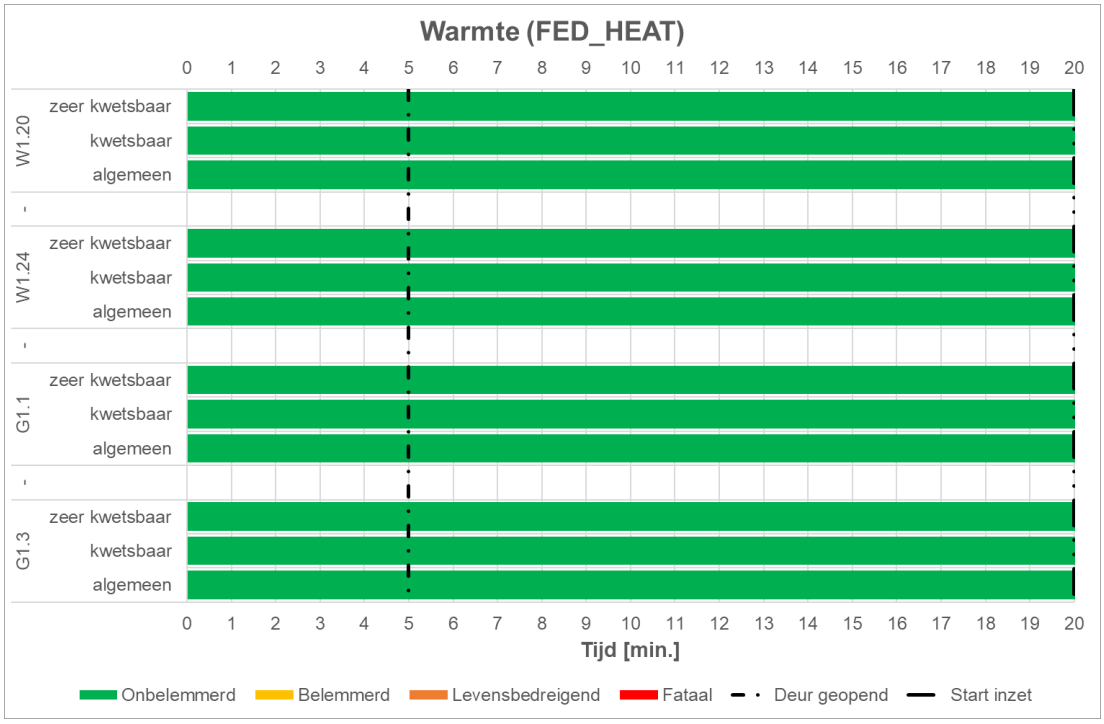

Warmte (FED_HEAT)
FED [-]
0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
Tijd [s]
'030719_2_TK1.1.4
'030719_2_TK1.1.6
'030719_2_TK1.4.4
'030719_2_TK1.4.6
'030719_2_TK1.5.4
'030719_2_TK1.5.6
'030719_2_TK1.6.4
'030719_2_TK1.6.6
'030719_2_TK1.7.6
'030719_2_TK1.8.6
'030719_2_TK1.2.4
'030719_2_TK1.2.6
'030719_2_TK1.3.4
'030719_2_TK1.3.6
'030719_2_TK1.7.4
'030719_2_TK1.8.4
Deur geopend
Start inzet
Grens_0.1
Grens_0.3
Grens_1.0

Heat (FED_HEAT)						
	Group	Threshold [-]	Safe [min.]	Impaired [min.]	Life-threatening [min.]	Fatal [min.]
Fire room 1.19 G1	Highly vulnerable	0.1/0.8/1.2	12.0	18.4	21.1	> 21.1
	Vulnerable	0.3/2.4/12.0	14.7	> 55.0	-	-
	General	1.0/8.0/12.0	19.8	> 55.0	-	-
Residence 1.20 G2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Residence 1.24 G3	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Residence 1.25 G4	Highly vulnerable	0.1/0.8/1.2	23.3	> 55.0	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.8/1.2	15.5	> 55.0	-	-
	Vulnerable	0.3/2.4/12.0	22.8	> 55.0	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2	Highly vulnerable	0.1/0.8/1.2	14.8	> 55.0	-	-

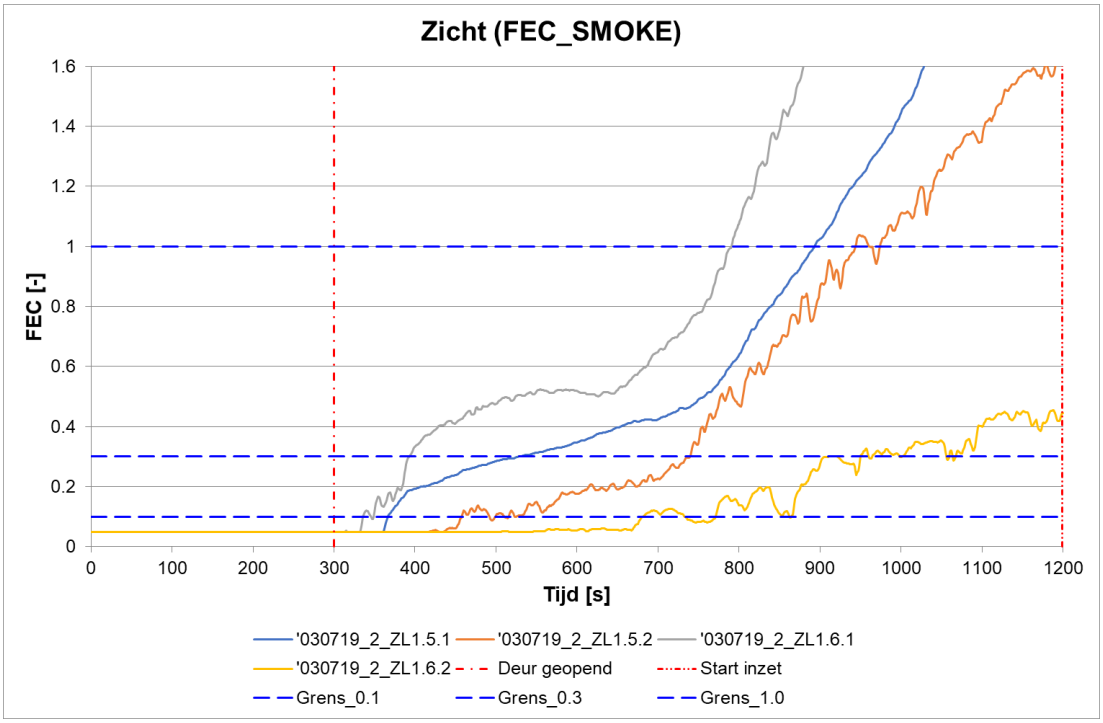
G6.1	Vulnerable	0.3/2.4/12.0	20.7	> 55.0	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-




Warmte (FED_HEAT)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet

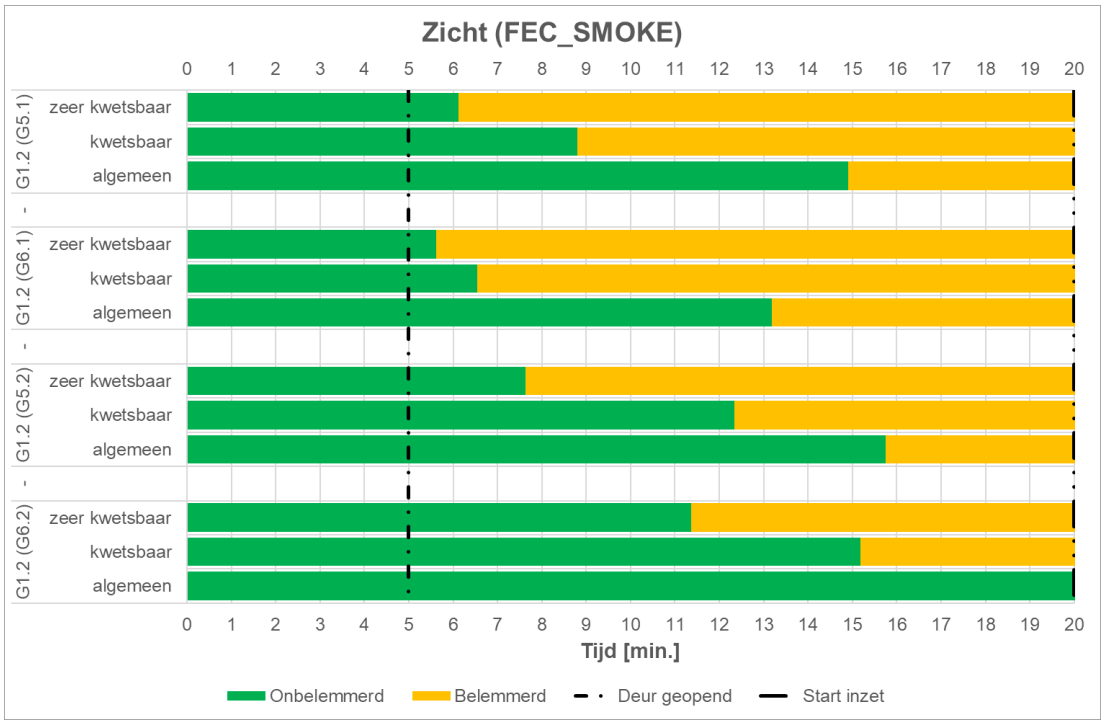

Warmte (FED_HEAT)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet

Visibility

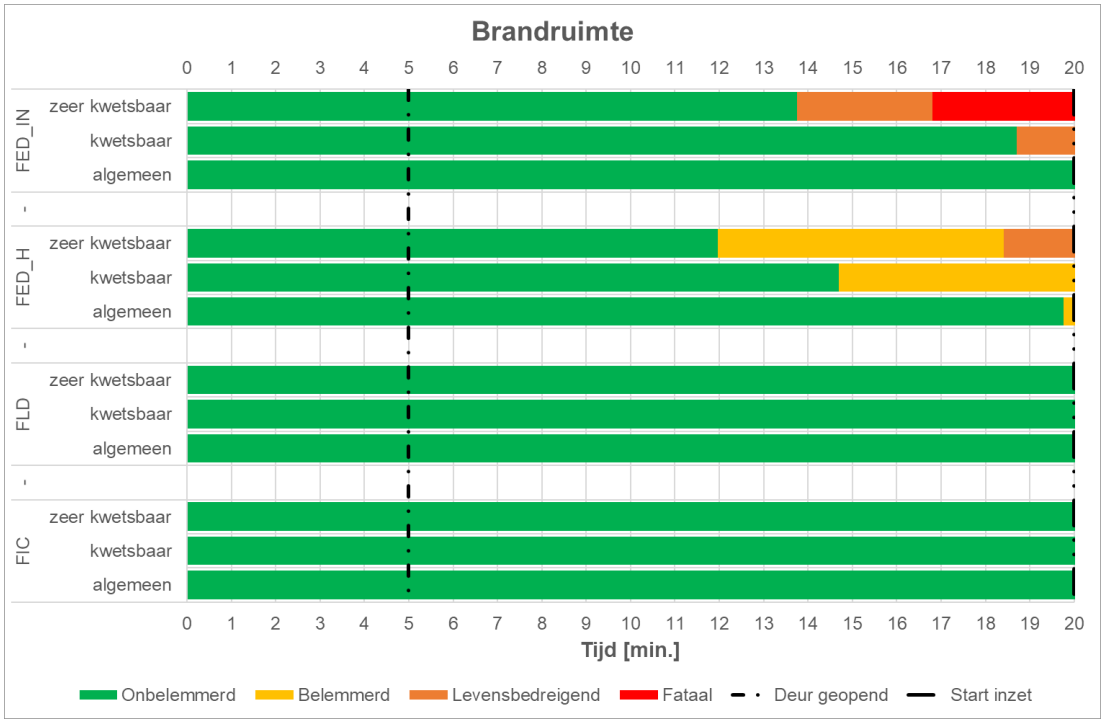


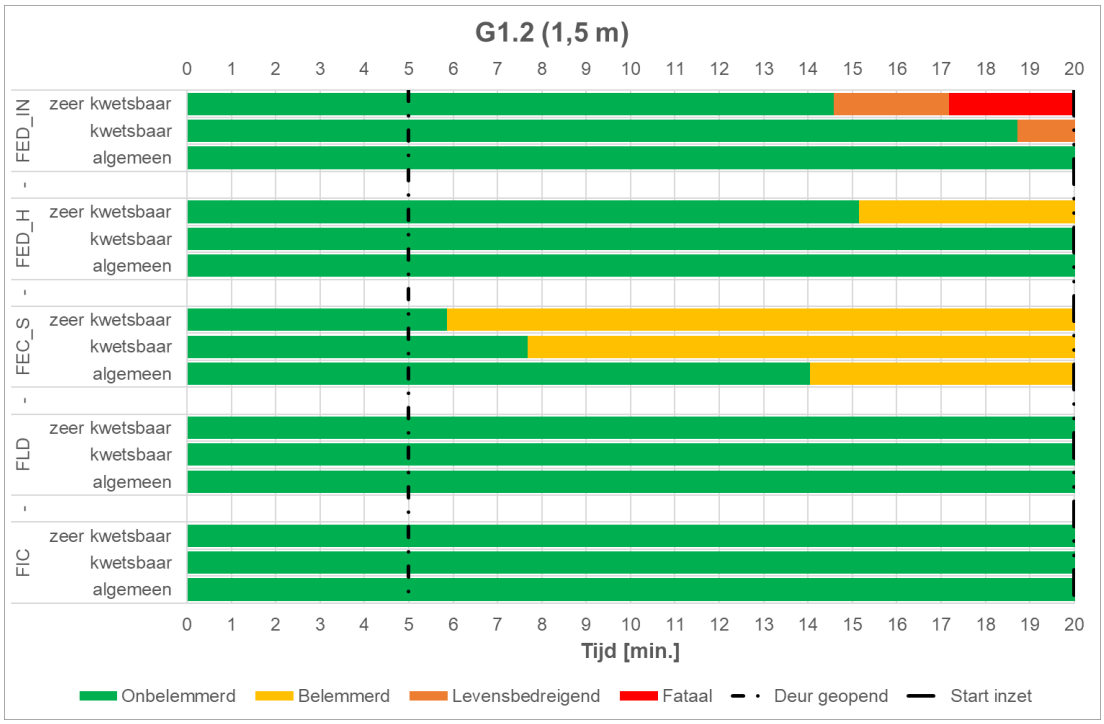
	Visibility (FEC_SMOKE)			
	Group	Threshold [-]	Safe [min.]	Impaired [min.]
Corridor 1.2 G5.1	Highly vulnerable	0.1	6.1	> 6.1
	Vulnerable	0.3	8.8	> 8.8
	General	1.0	14.9	> 14.9
Corridor 1.2 G5.2	Highly vulnerable	0.1	7.6	> 7.6
	Vulnerable	0.3	12.3	> 12.3
	General	1.0	15.8	> 15.8
Corridor 1.2 G6.1	Highly vulnerable	0.1	5.6	> 5.6
	Vulnerable	0.3	6.6	> 6.6
	General	1.0	13.2	> 13.2
Corridor 1.2	Highly vulnerable	0.1	11.4	> 11.4

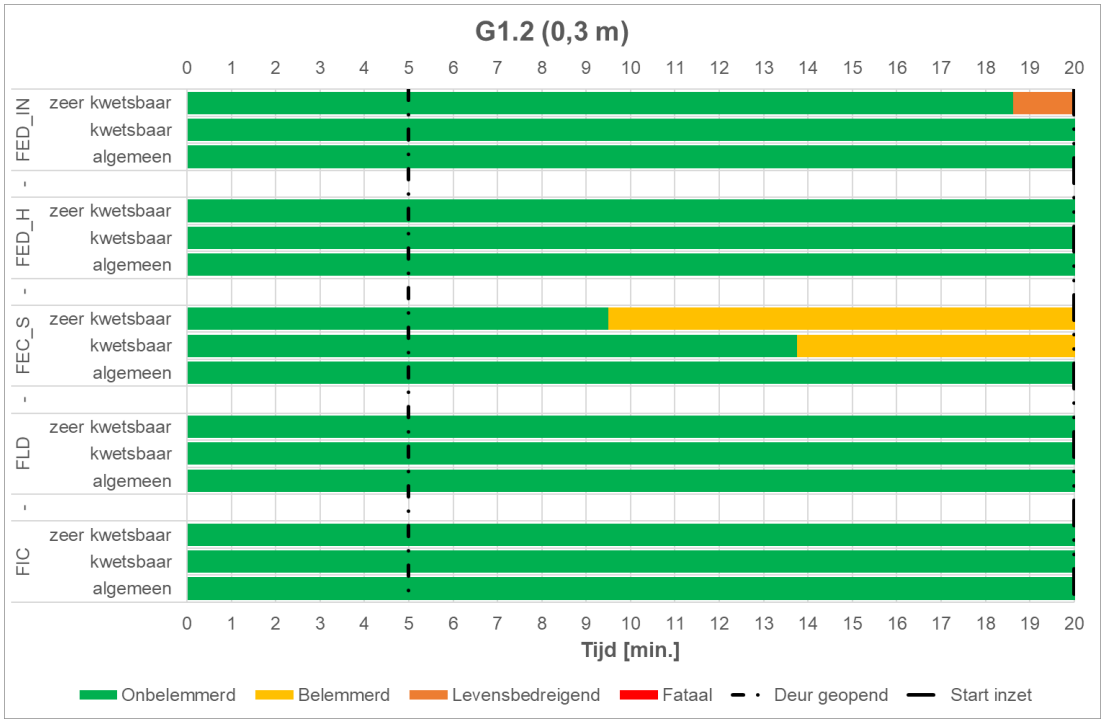
G6.2	Vulnerable	0.3	15.2	> 15.2
	General	1.0	> 55.0	-



Overview

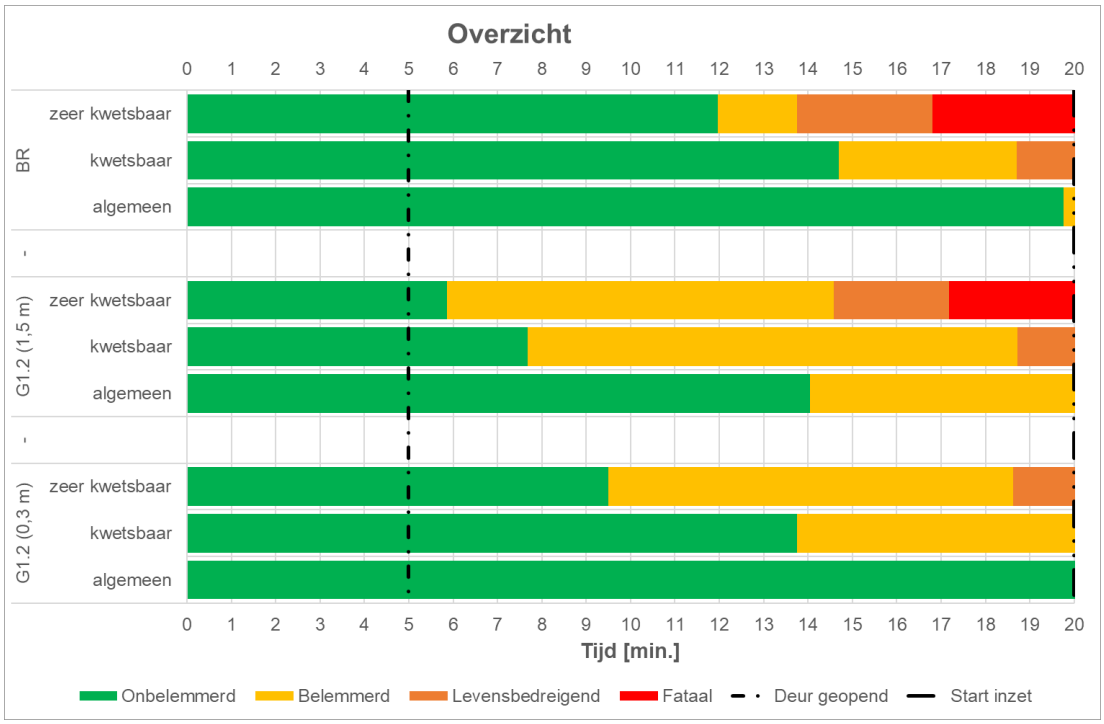


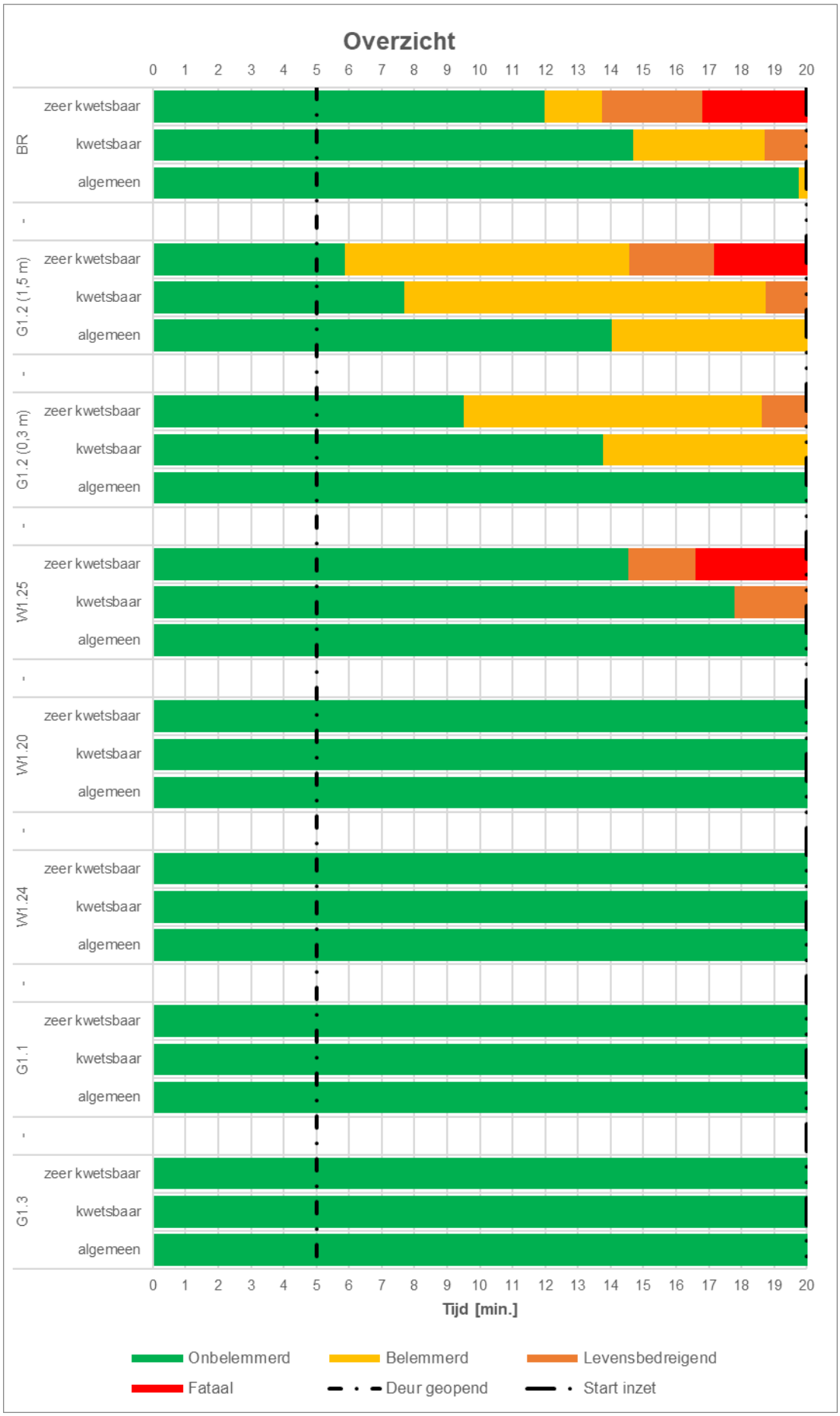

G1.2 (1,5 m)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
FED_IN
FED_H
FEC_S
FLD
FIC
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet


G1.2 (0,3 m)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
FED_IN
FED_H
FEC_S
FLD
FIC
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet

	Overview	Escape		Survivability	
	Group	Safe [min.]	Impaired [min.]	Life-threatening [min.]	Fatal [min.]
Fire room 1.19 G1	Highly vulnerable	12.0	13.8	16.8	> 16.8
	Vulnerable	14.7	18.7	22.2	> 22.2
	General	19.8	27.3	> 55.0	-
Residence 1.20 G2	Highly vulnerable	26.1	26.1	27.7	> 27.7
	Vulnerable	29.2	29.2	34.2	> 34.2
	General	> 55.0	-	-	-
Residence 1.24 G3	Highly vulnerable	28.2	28.2	32.3	> 32.3
	Vulnerable	36.6	36.6	> 55.0	-
	General	> 55.0	-	-	-
Residence 1.25 G4	Highly vulnerable	14.6	14.6	16.6	> 16.6
	Vulnerable	17.8	17.8	20.1	> 20.1
	General	22.0	22.0	25.7	> 25.7
Corridor 1.2 G5.1	Highly vulnerable	6.1	15.3	17.8	> 17.8
	Vulnerable	8.8	19.3	22.4	> 22.4
	General	14.9	25.9	> 55.0	-
Corridor 1.2 G5.2	Highly vulnerable	7.6	17.8	20.3	> 20.3
	Vulnerable	12.3	21.8	26.3	> 26.3
	General	15.8	42.0	> 55.0	-
Corridor 1.2	Highly vulnerable	5.6	13.9	16.6	> 16.6

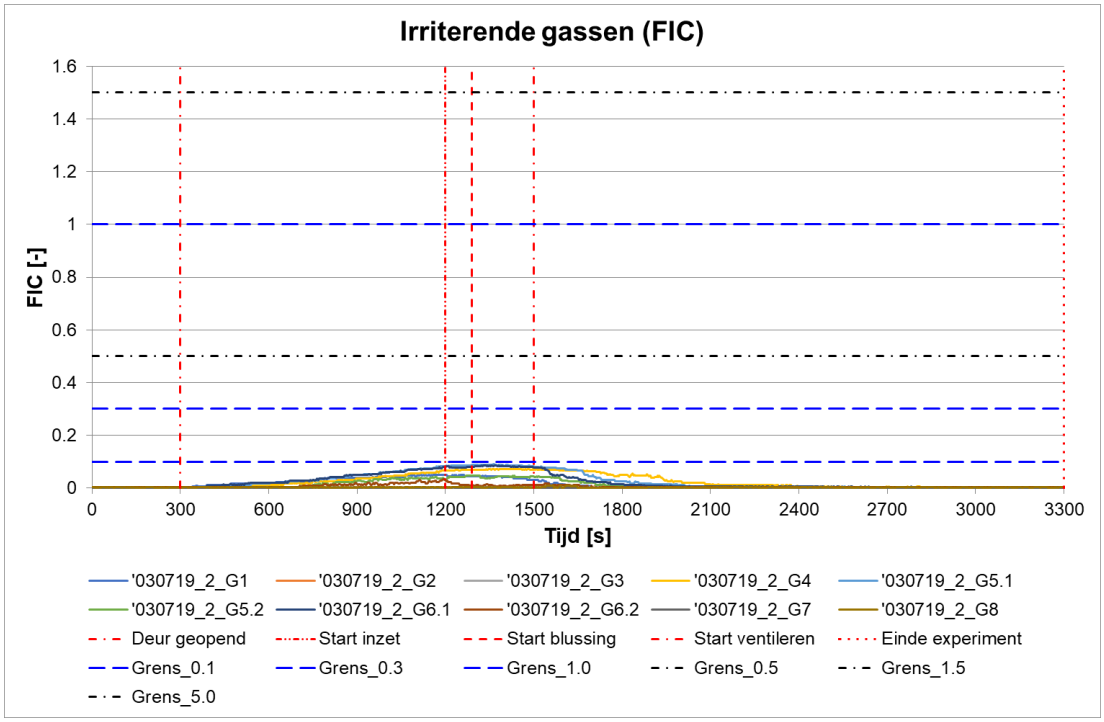
G6.1	Vulnerable	6.6	18.2	21.4	> 21.4
	General	13.2	24.8	> 55.0	-
Corridor 1.2 G6.2	Highly vulnerable	11.4	19.5	24.0	> 24.0
	Vulnerable	15.2	25.7	37.7	> 37.7
	General	> 55.0	-	-	-
Corridor 1.1 G7	Highly vulnerable	35.0	35.0	41.0	> 41.0
	Vulnerable	46.3	46.3	> 55.0	-
	General	> 55.0	-	-	-
Corridor 1.3 G8	Highly vulnerable	47.5	47.5	> 55.0	-
	Vulnerable	> 55.0	-	-	-
	General	> 55.0	-	-	

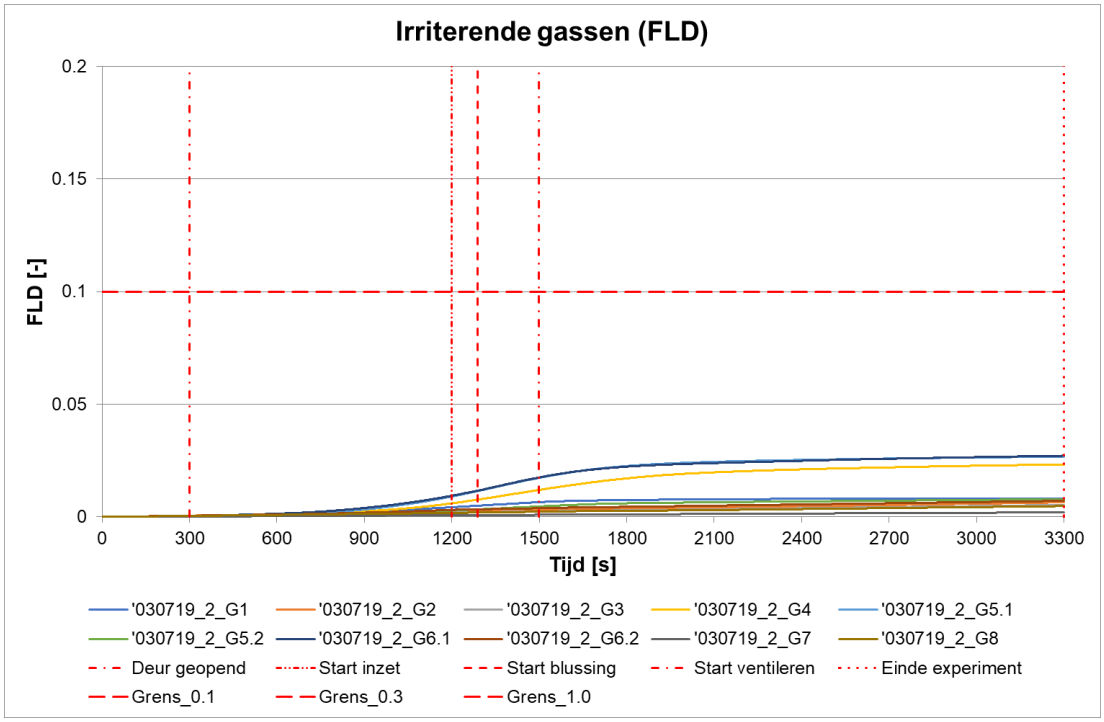



Overzicht
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (1,5 m)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (0,3 m)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet

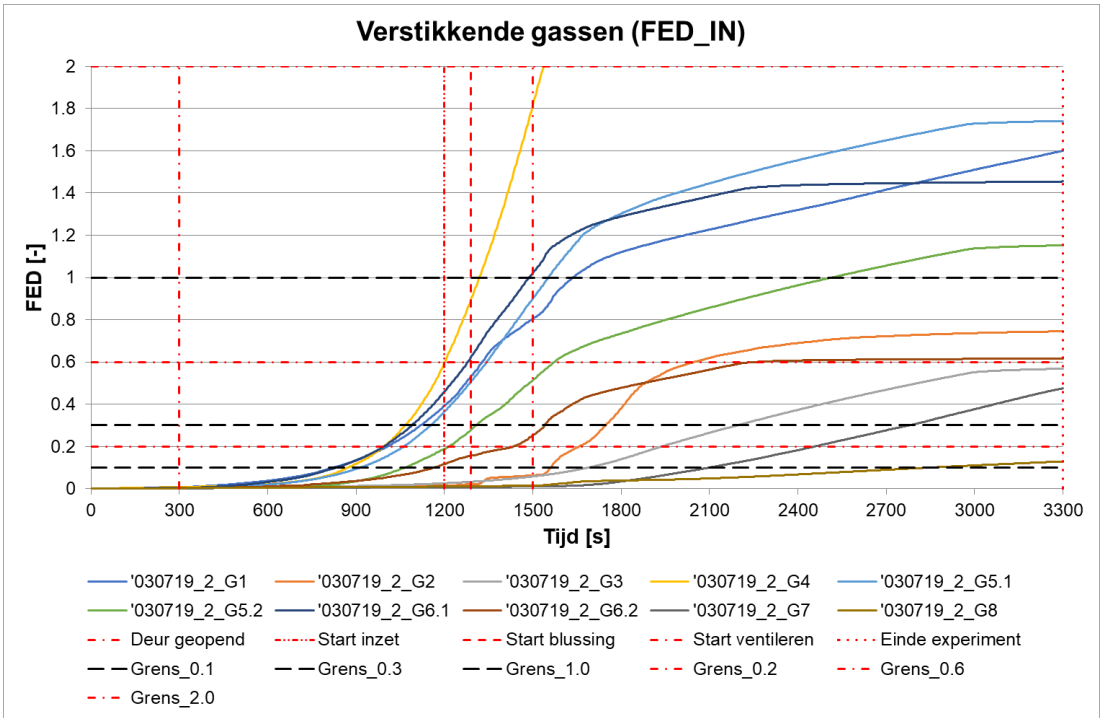
C. Deployment phase (20 - 55 minutes)

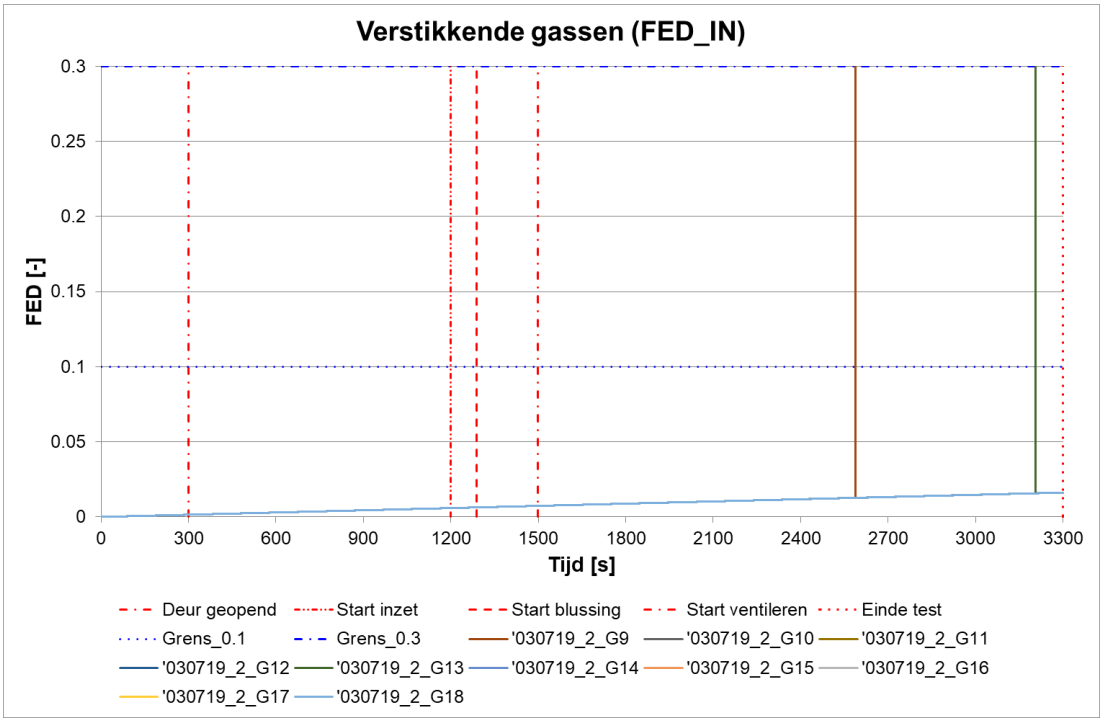
Irritant gases



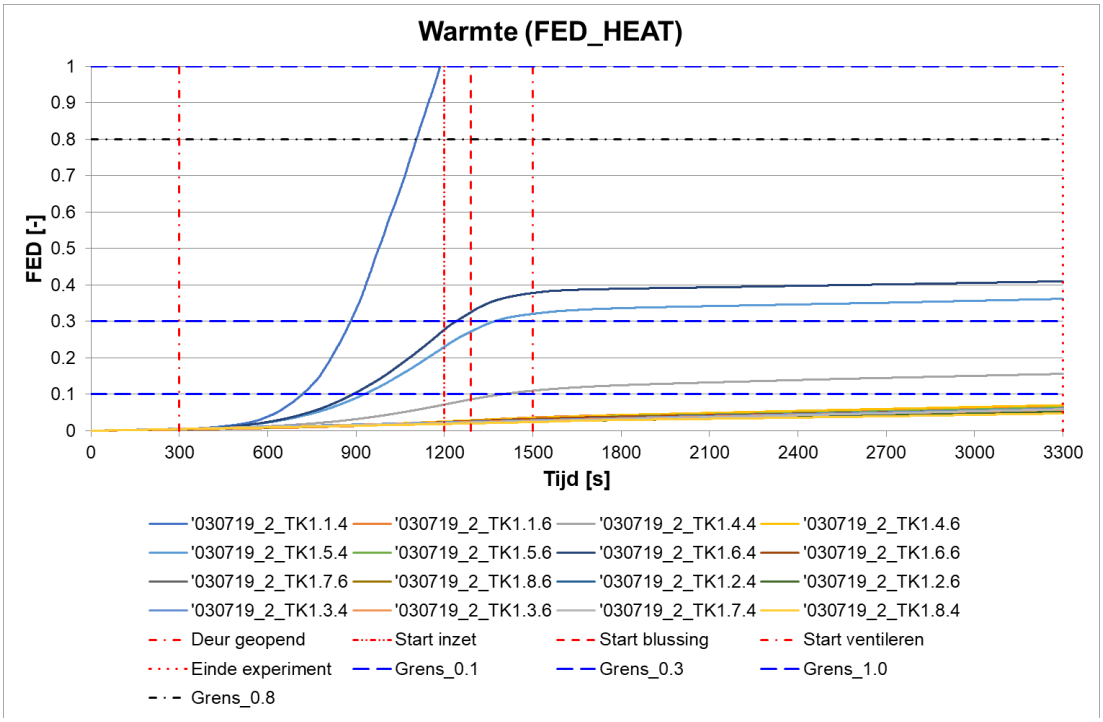


Asphyxiant gases

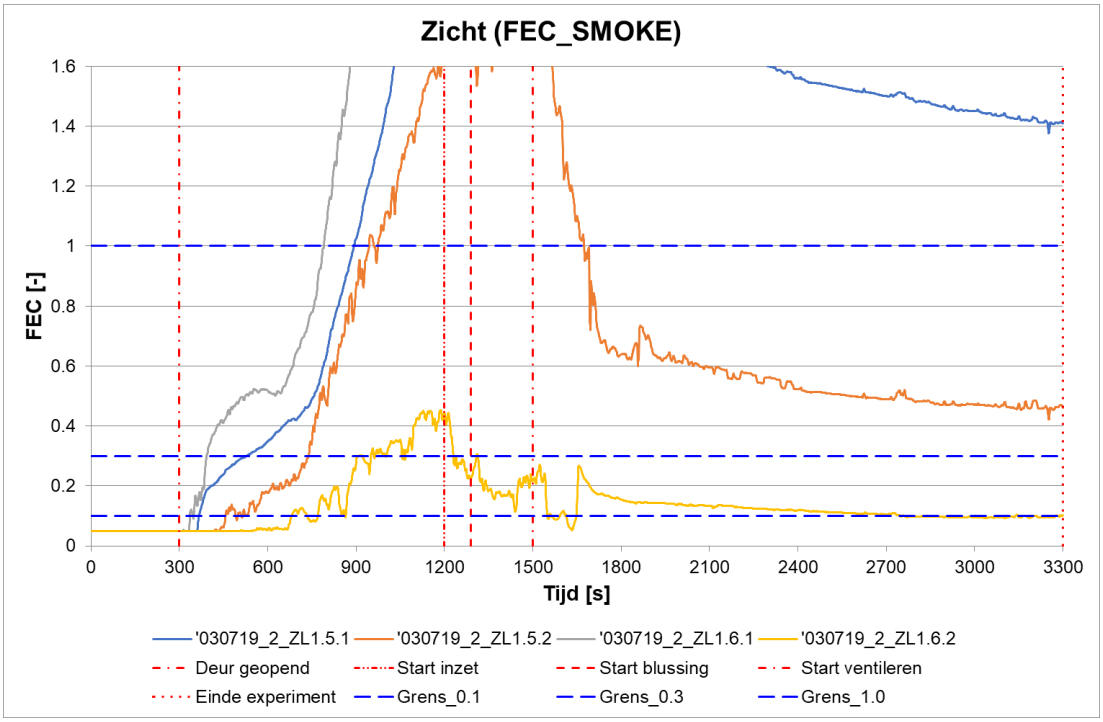




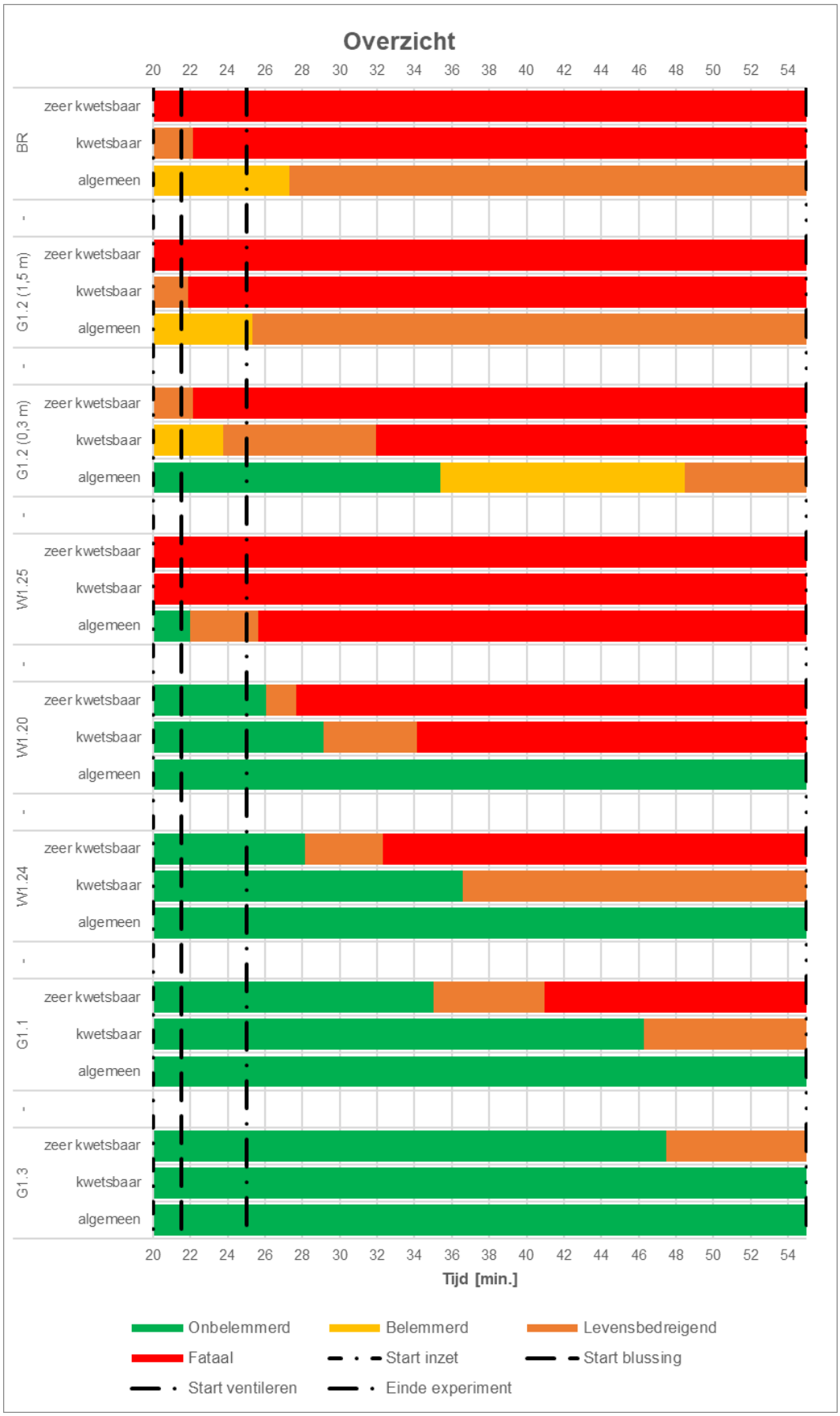
Heat



Visibility



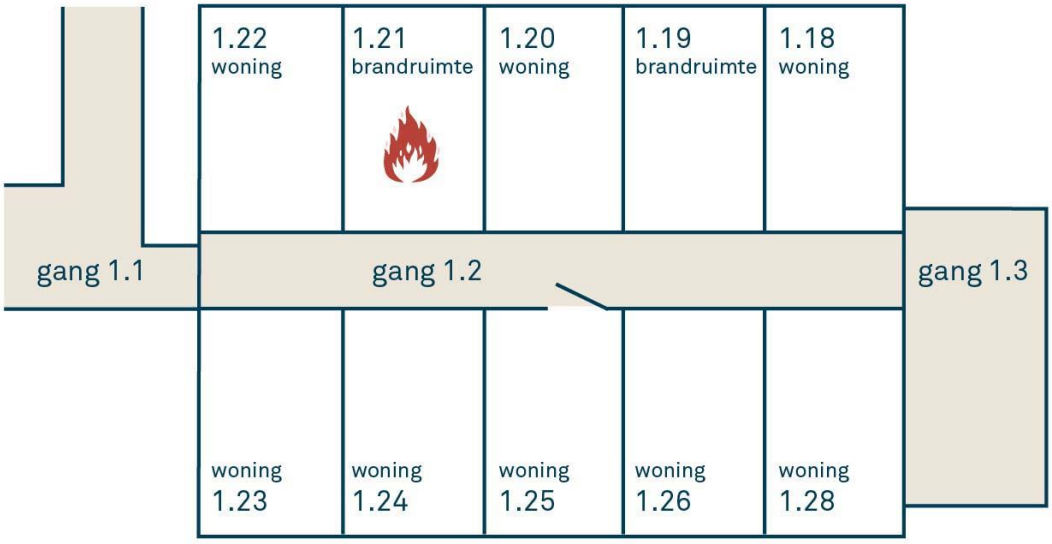
Overview


Overzicht
20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54
BR
G1.2 (1,5 m)
G1.2 (0,3 m)
W1.25
W1.20
W1.24
G1.1
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
-
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Start inzet
Start blussing
Start ventileren
Einde experiment

Test 16 (variant 1: door closed) 04/07/19

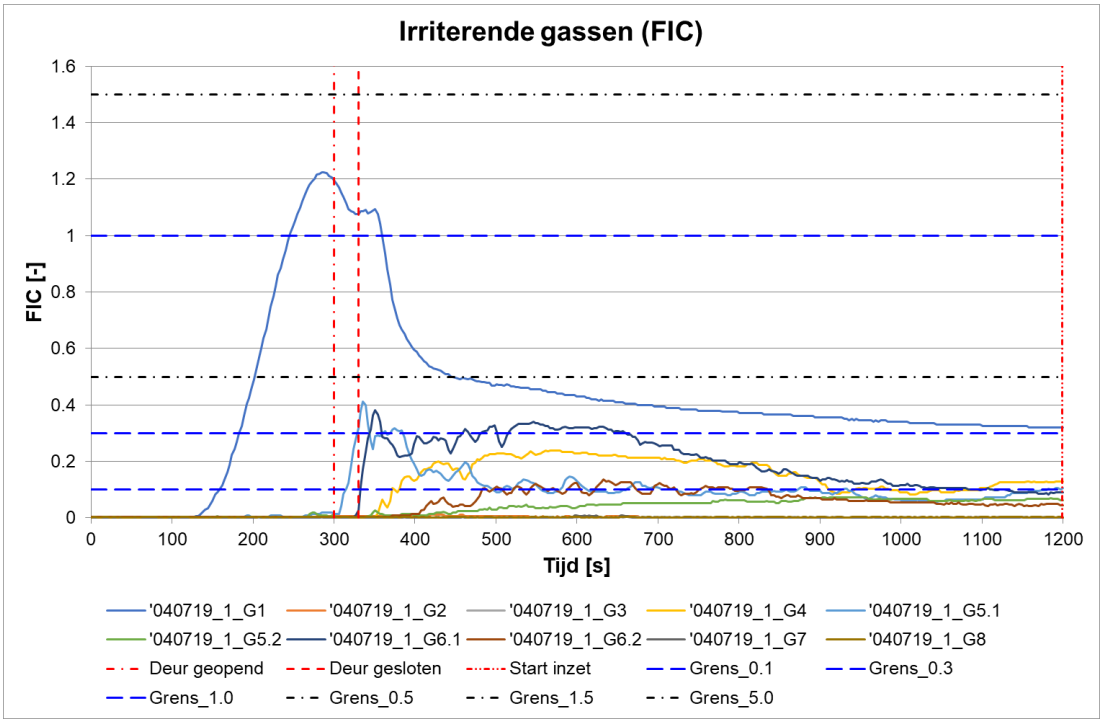
A. Description of the test

Test number	16
Date	04/07/2019
Morning / afternoon	Morning
Fire room	1.21
Door to the fire room open / closed	Closed
Fire service deployment	Offensive interior attack
Extra measures	Effect of door
Specific aspects	None



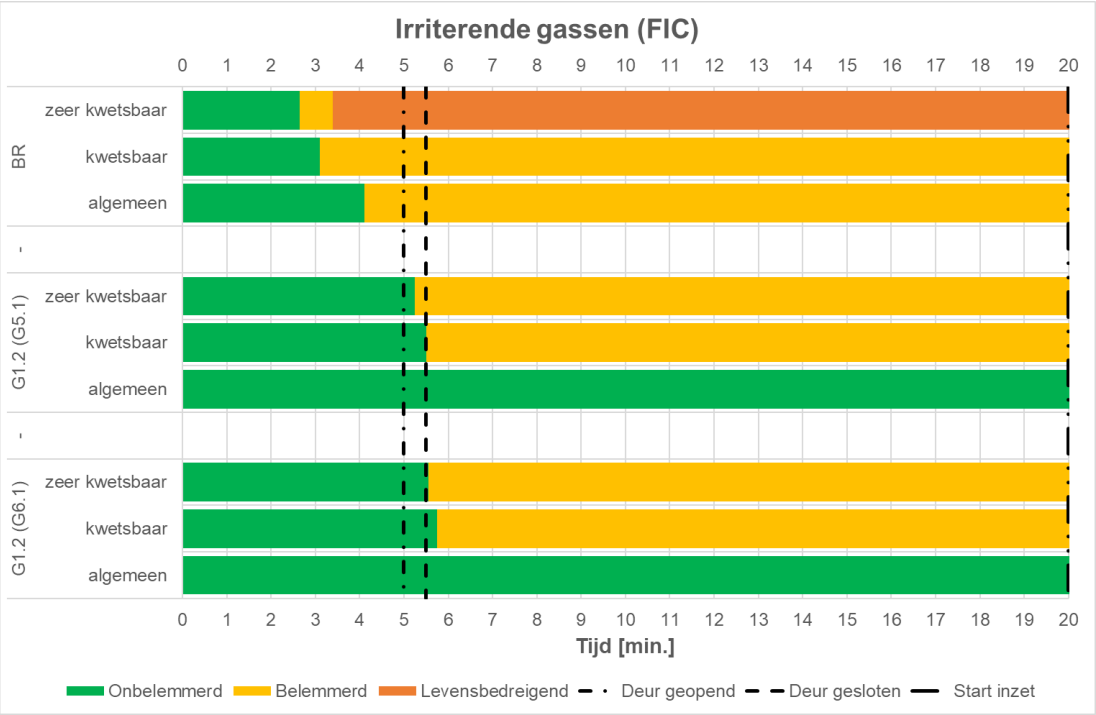
B. Escape phase (0 - 20 minutes)

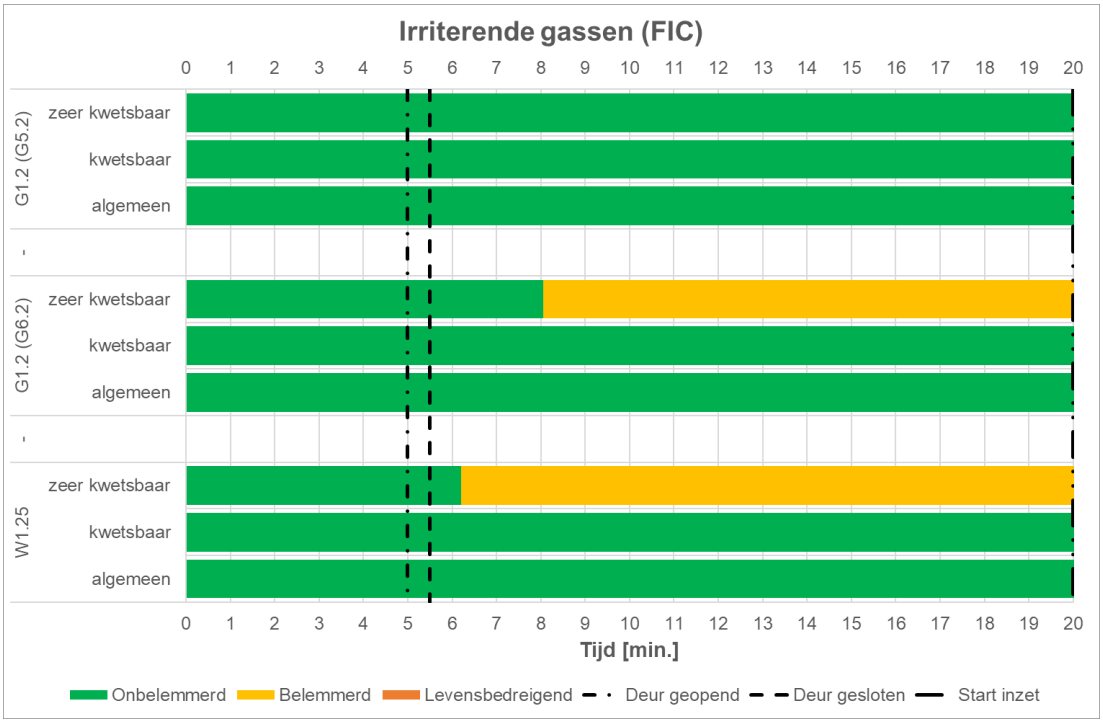
Irritant gases

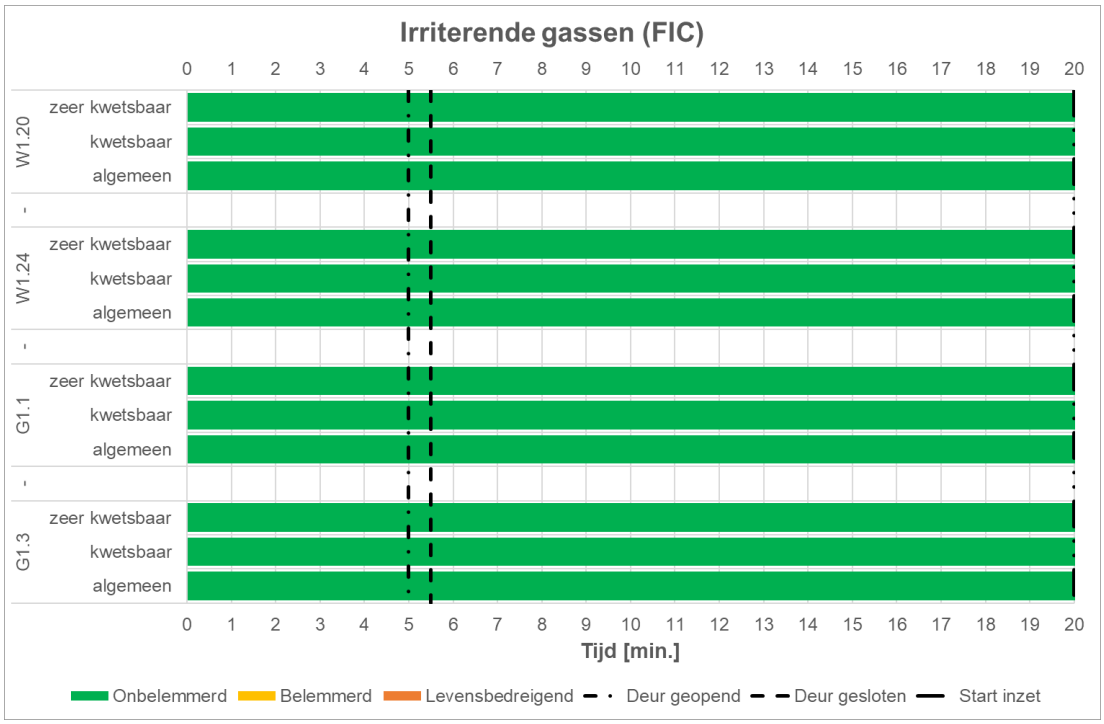


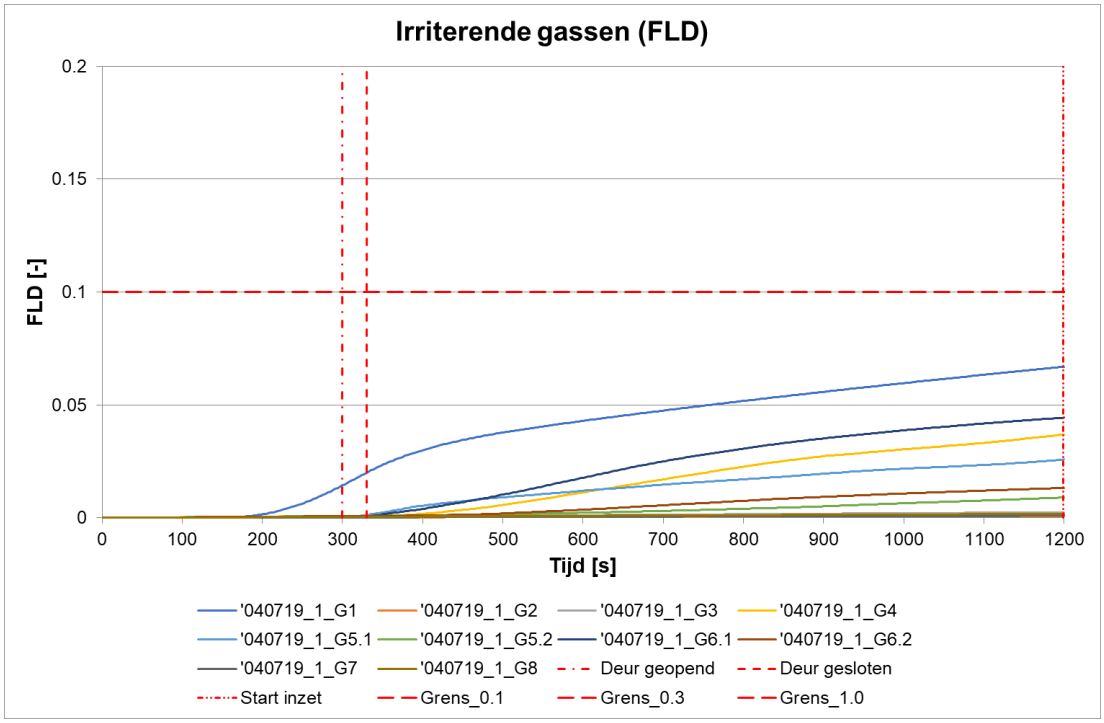
	Irritant gases (FIC)				
	Group	Threshold [-]	Safe [min.]	Impaired [min.]	Life-threatening [min.]
Fire room 1.21 G1	Highly vulnerable	0.1/0.5	2.7	3.4	> 3.4
	Vulnerable	0.3/1.5	3.1	> 55.0	-
	General	1.0/5.0	4.1	> 55.0	-
Residence 1.20 G2	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Residence 1.24 G3	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-

Residence 1.25 G4	Highly vulnerable	0.1/0.5	6.2	> 55.0	
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.5	5.3	> 55.0	-
	Vulnerable	0.3/1.5	5.5	> 55.0	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.5	5.6	> 55.0	-
	Vulnerable	0.3/1.5	5.8	> 55.0	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.5	8.1	> 55.0	
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-


Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G5.1)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.1)
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Deur gesloten
Start inzet

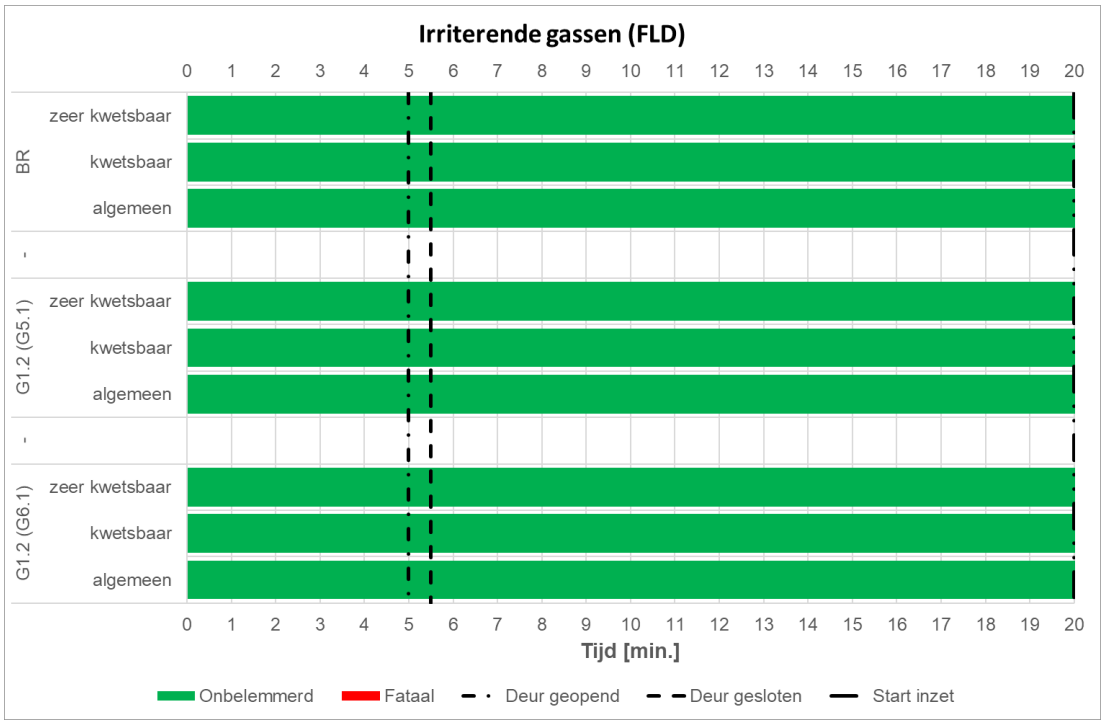

Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Deur gesloten
Start inzet


Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Deur gesloten
Start inzet

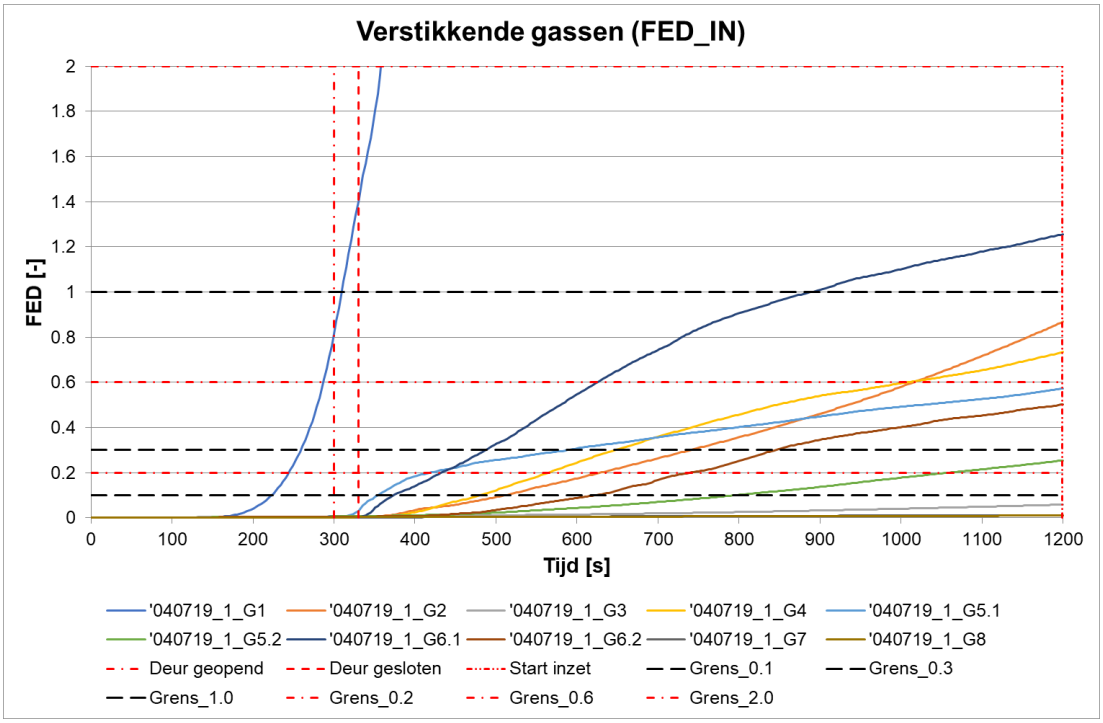

Irriterende gassen (FLD)
FLD [-]
0.2
0.15
0.1
0.05
0
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
Tijd [s]
'040719_1_G1
'040719_1_G2
'040719_1_G3
'040719_1_G4
'040719_1_G5.1
'040719_1_G5.2
'040719_1_G6.1
'040719_1_G6.2
'040719_1_G7
'040719_1_G8
Deur geopend
Deur gesloten
Start inzet
Grens_0.1
Grens_0.3
Grens_1.0

	Irritant gases (FLD)			
	Group	Threshold [-]	Safe [min.]	Impaired [min.]
Fire room 1.21 G1	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.20 G2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.24 G3	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.25 G4	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G5.1	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G5.2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G6.1	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G6.2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-

	General	1.0	> 55.0	-
Corridor 1.1 G7	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.3 G8	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-

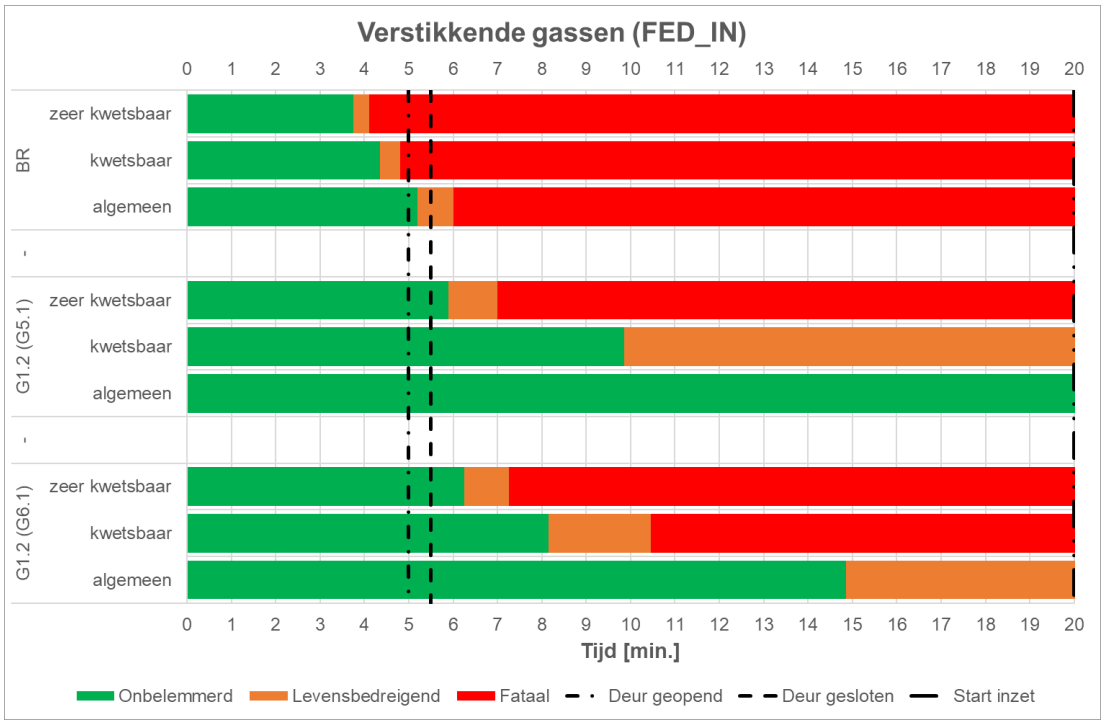


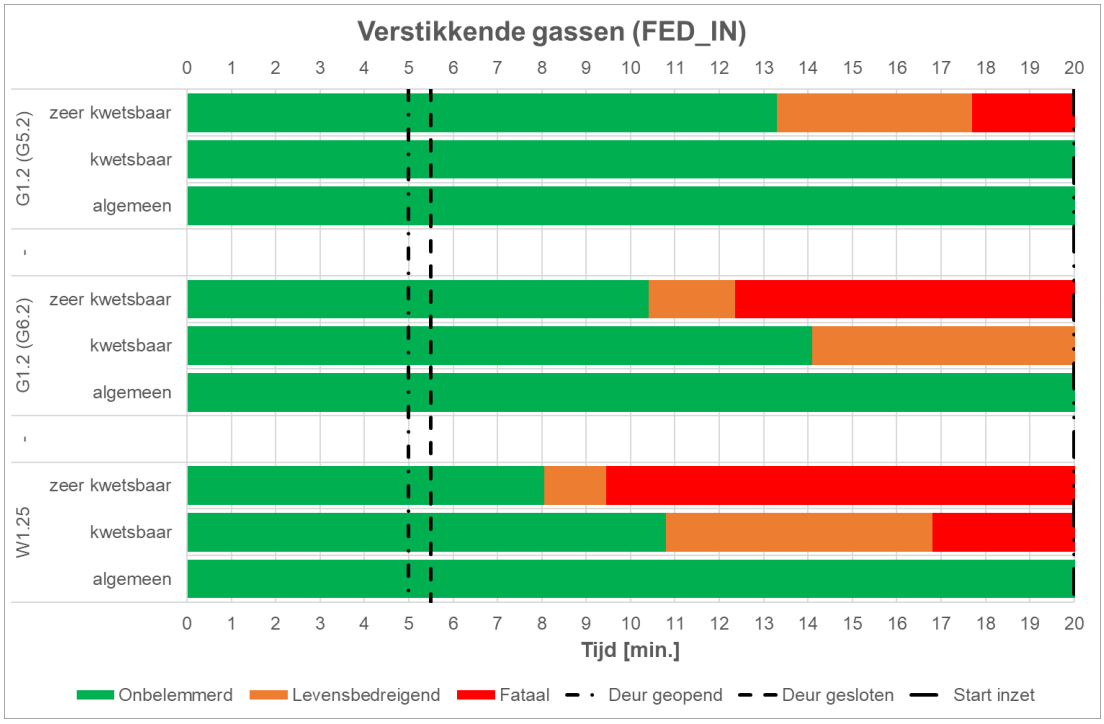
Asphyxiant gases

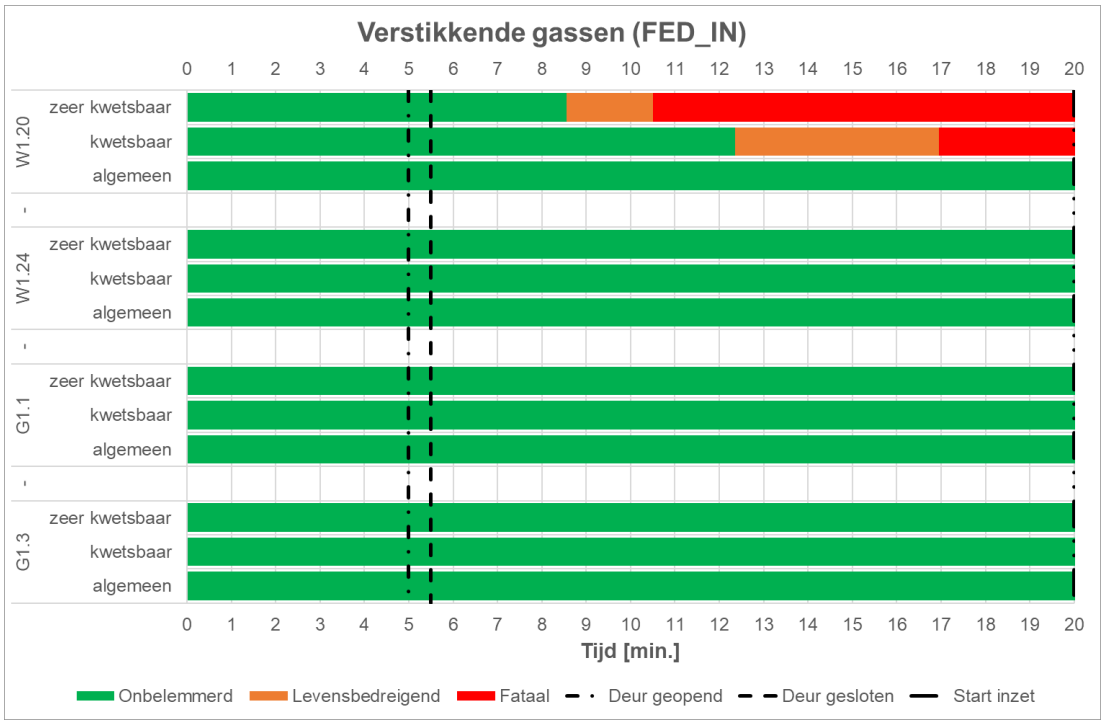


		Asphyxiant gases (FED_IN)			
	Group	Threshold [-]	Safe [min.]	Life-threatening [min.]	Fatal [min.]
Fire room 1.21 G1	Highly vulnerable	0.1/0.2	3.8	4.1	> 4.1
	Vulnerable	0.3/0.6	4.4	4.8	> 4.8
	General	1.0/2.0	5.2	6.0	> 6.0
Residence 1.20 G2	Highly vulnerable	0.1/0.2	8.6	10.5	> 10.5
	Vulnerable	0.3/0.6	12.4	17.0	> 17.0
	General	1.0/2.0	21.2	28.4	> 28.4
Residence 1.24 G3	Highly vulnerable	0.1/0.2	25.3	29.7	> 29.7
	Vulnerable	0.3/0.6	32.0	42.8	> 42.8
	General	1.0/2.0	> 55.0	-	-
Residence 1.25	Highly vulnerable	0.1/0.2	8.1	9.5	> 9.5

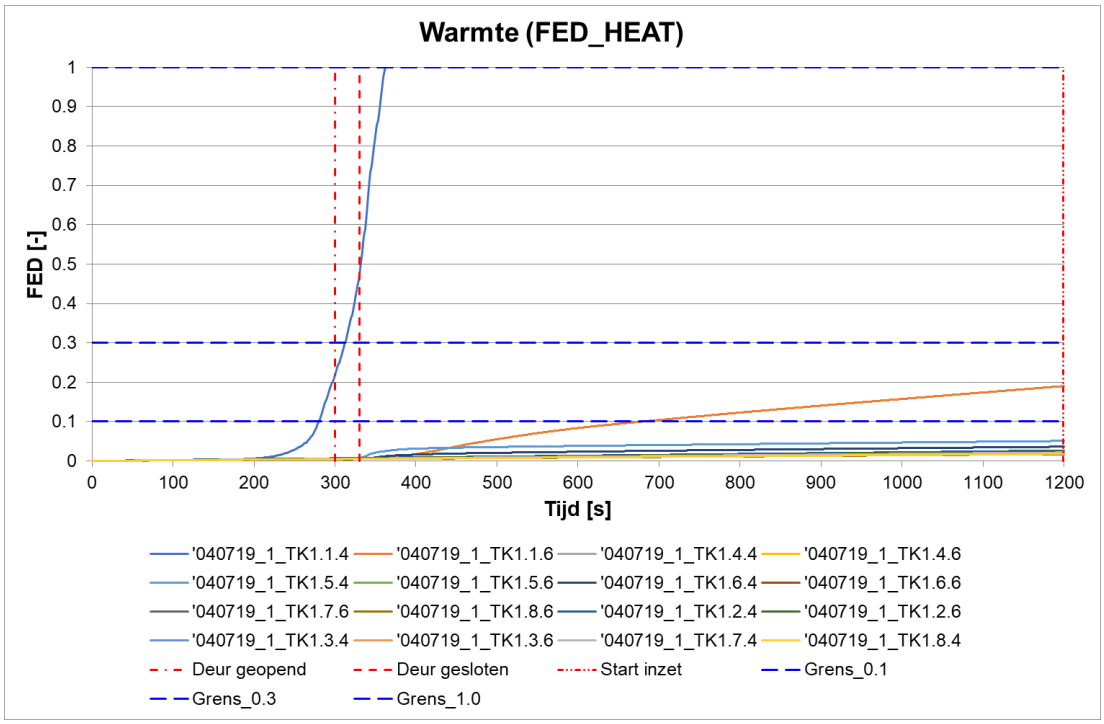
G4	Vulnerable	0.3/0.6	10.8	16.8	> 16.8
	General	1.0/2.0	24.4	26.7	> 26.7
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.2	5.9	7.0	> 7.0
	Vulnerable	0.3/0.6	9.9	20.9	> 20.9
	General	1.0/2.0	23.6	30.2	> 30.2
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.2	13.3	17.7	> 17.7
	Vulnerable	0.3/0.6	21.7	28.1	> 28.1
	General	1.0/2.0	37.6	> 55.0	-
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.2	6.3	7.3	> 7.3
	Vulnerable	0.3/0.6	8.2	10.5	> 10.5
	General	1.0/2.0	14.9	24.2	> 24.2
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.2	10.4	12.4	> 12.4
	Vulnerable	0.3/0.6	14.1	22.8	> 22.8
	General	1.0/2.0	24.4	26.5	> 26.5
Corridor 1.1 G7	Highly vulnerable	0.1/0.2	31.4	34.2	> 34.2
	Vulnerable	0.3/0.6	37.0	46.6	> 46.6
	General	1.0/2.0	> 55.0	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.2	27.2	32.5	> 32.5
	Vulnerable	0.3/0.6	38.6	> 55.0	-
	General	1.0/2.0	> 55.0	-	-


Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G5.1)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.1)
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet


Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

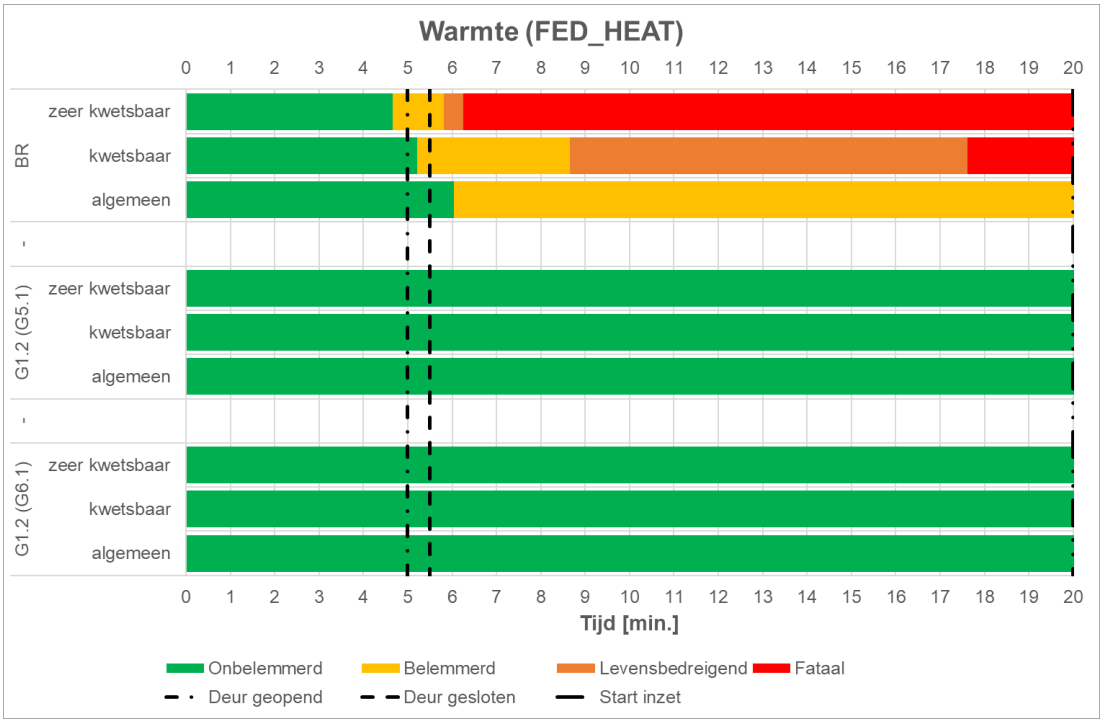

Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

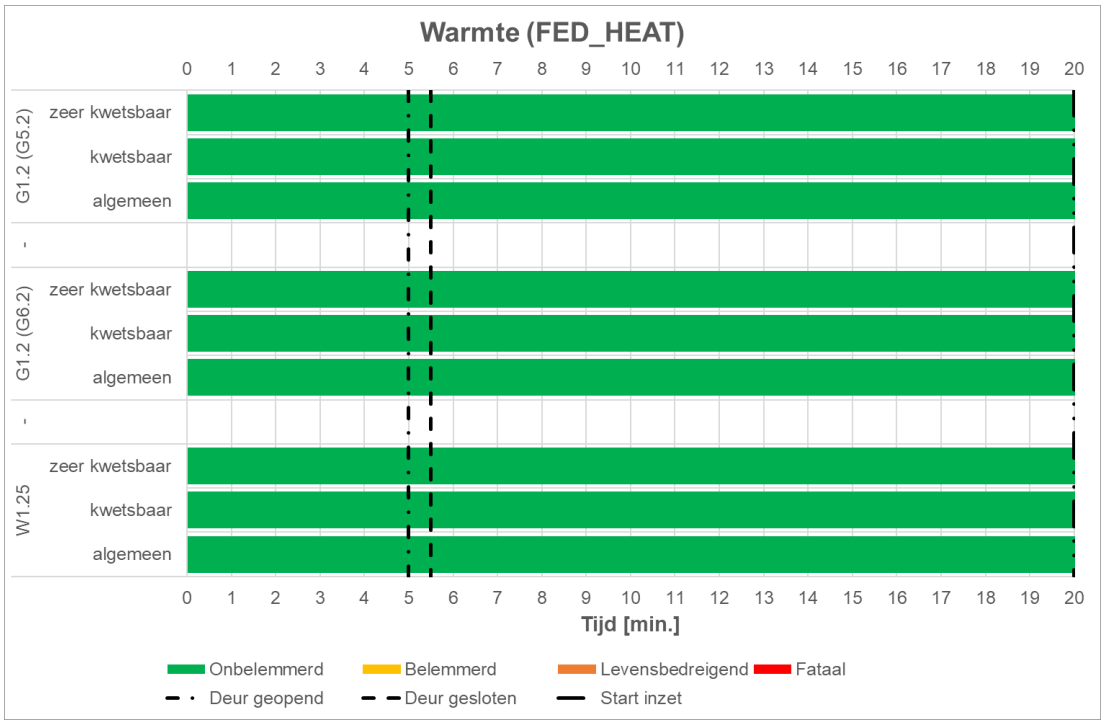
Heat

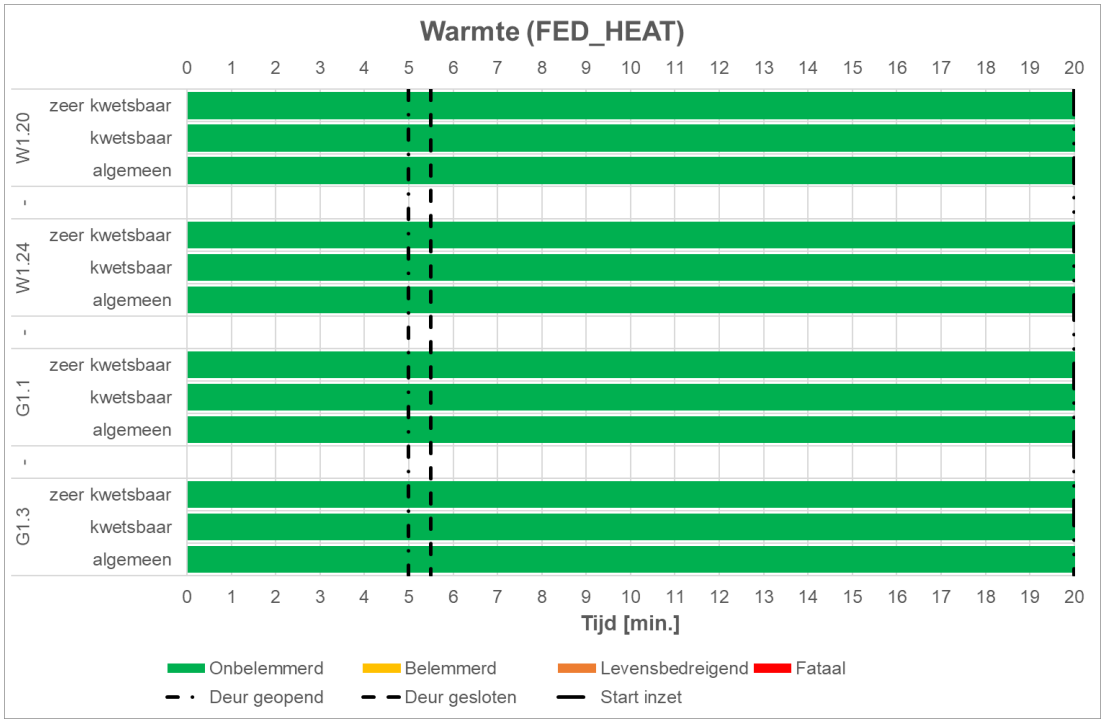

Warmte (FED_HEAT)
FED [-]
0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
Tijd [s]
'040719_1_TK1.1.4
'040719_1_TK1.1.6
'040719_1_TK1.4.4
'040719_1_TK1.4.6
'040719_1_TK1.5.4
'040719_1_TK1.5.6
'040719_1_TK1.6.4
'040719_1_TK1.6.6
'040719_1_TK1.7.6
'040719_1_TK1.8.6
'040719_1_TK1.2.4
'040719_1_TK1.2.6
'040719_1_TK1.3.4
'040719_1_TK1.3.6
'040719_1_TK1.7.4
'040719_1_TK1.8.4
Deur geopend
Deur gesloten
Start inzet
Grens_0.1
Grens_0.3
Grens_1.0

		Heat (FED_HEAT)				
	Group	Threshold [-]	Safe [min.]	Impaired [min.]	Life-threatening [min.]	Fatal [min.
Fire room 1.21 G1	Highly vulnerable	0.1/0.8/1.2	4.7	5.8	6.3	> 6.3
	Vulnerable	0.3/2.4/12.0	5.2	8.7	17.6	> 17.6
	General	1.0/8.0/12.0	6.0	55.0	-	-
Residence 1.20 G2	Highly vulnerable	0.1/0.8/1.2	55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	55.0	-	-	-
	General	1.0/8.0/12.0	55.0	-	-	-
Residence 1.24 G3	Highly vulnerable	0.1/0.8/1.2	55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	55.0	-	-	-
	General	1.0/8.0/12.0	55.0	-	-	-
Residence 1.25 G4	Highly vulnerable	0.1/0.8/1.2	55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	55.0	-	-	-
	General	1.0/8.0/12.0	55.0	-	-	-
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.8/1.2	55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	55.0	-	-	-
	General	1.0/8.0/12.0	55.0	-	-	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.8/1.2	55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	55.0	-	-	-
	General	1.0/8.0/12.0	55.0	-	-	-
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.8/1.2	55.0	-	-	-

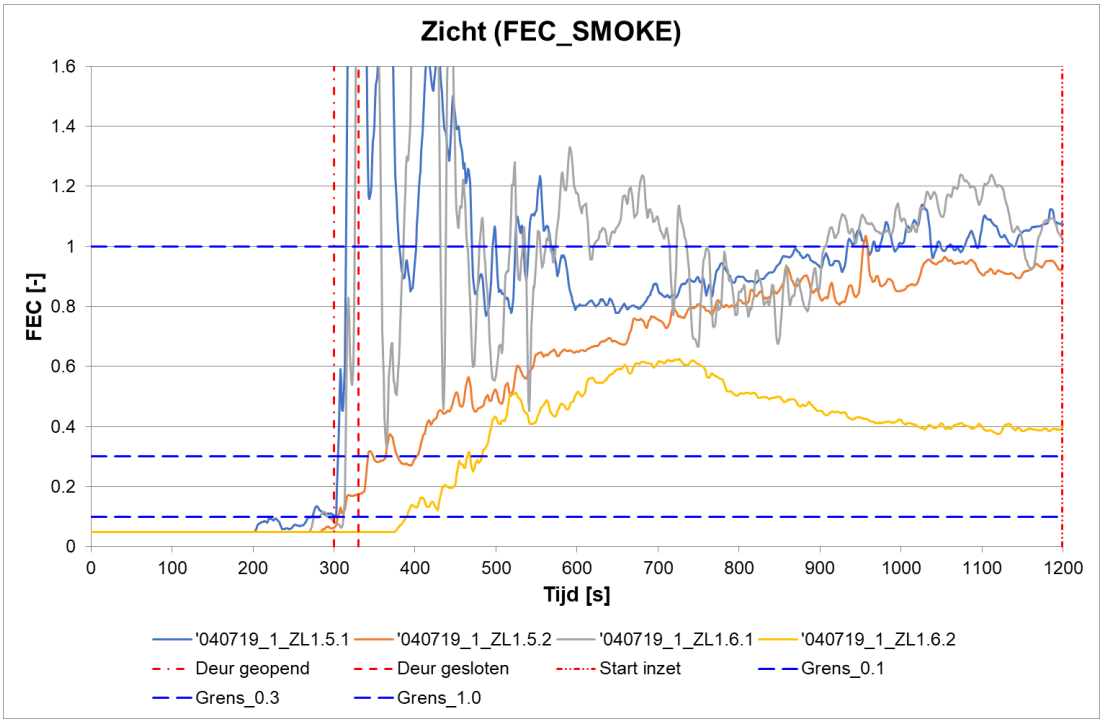
	Vulnerable	0.3/2.4/12.0	55.0	-	-	-
	General	1.0/8.0/12.0	55.0	-	-	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.8/1.2	55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	55.0	-	-	-
	General	1.0/8.0/12.0	55.0	-	-	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.8/1.2	55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	55.0	-	-	-
	General	1.0/8.0/12.0	55.0	-	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.8/1.2	55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	55.0	-	-	-
	General	1.0/8.0/12.0	55.0	-	-	-




Warmte (FED_HEAT)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

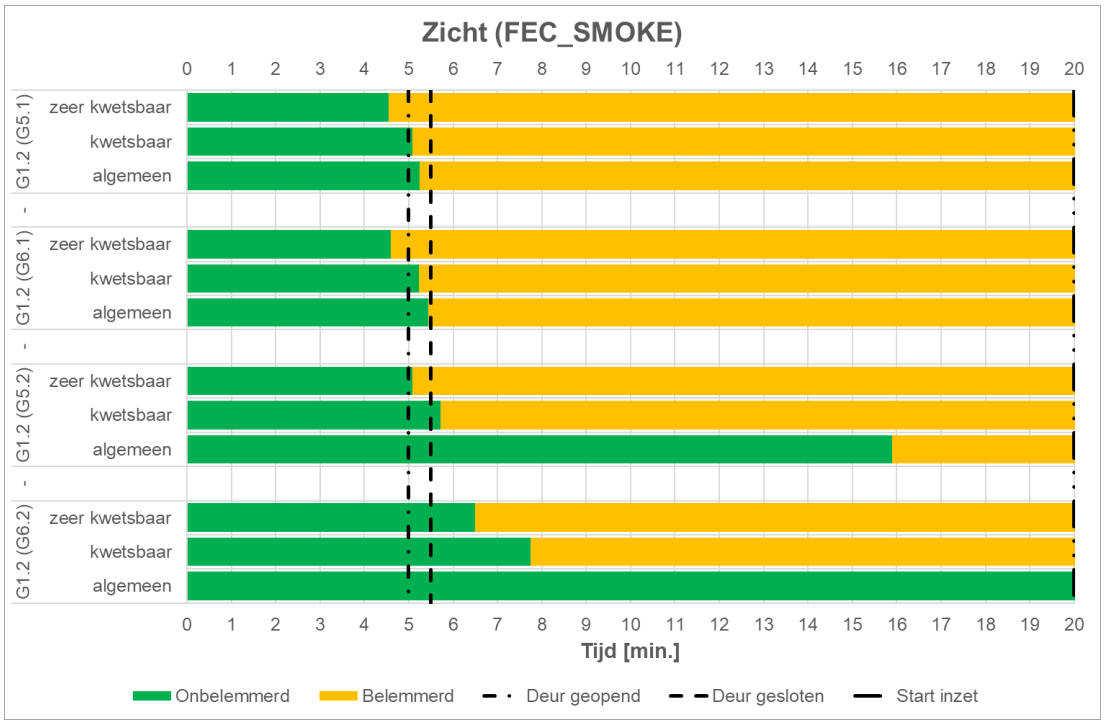

Warmte (FED_HEAT)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

Visibility

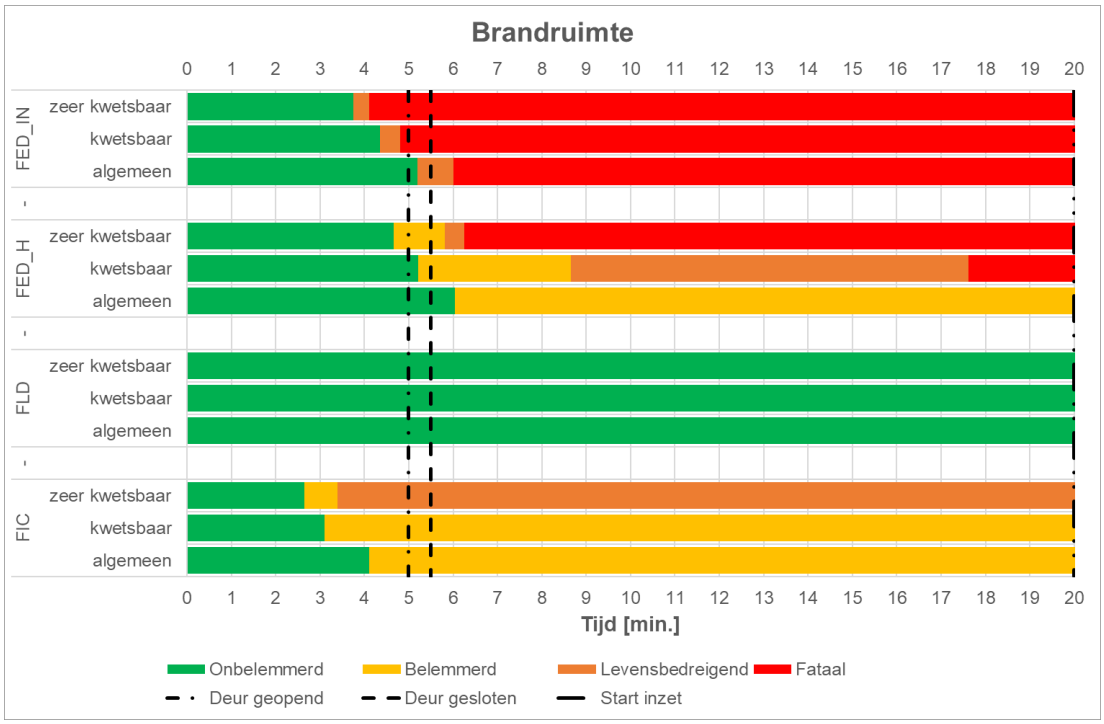


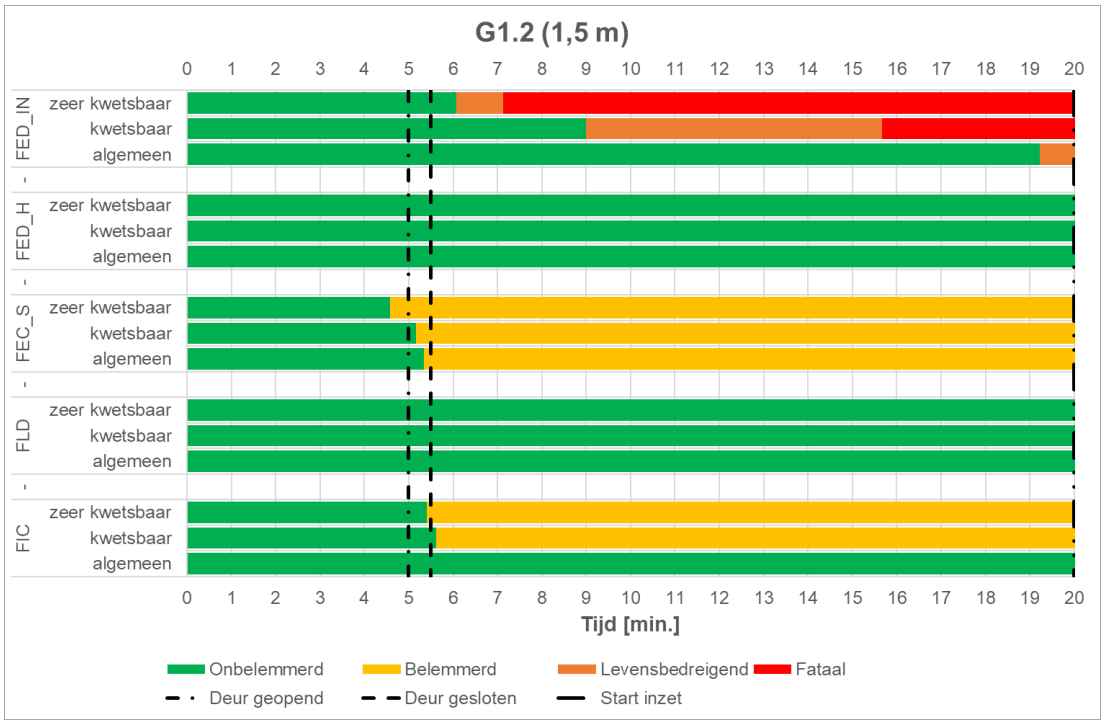
	Visibility (FEC_SMOKE)			
	Group	Threshold [-]	Safe [min.]	Impaired [min.]
Corridor 1.2 G5.1	Highly vulnerable	0.1	4.6	> 4.6
	Vulnerable	0.3	5.1	> 5.1
	General	1.0	5.3	> 5.3
Corridor 1.2 G5.2	Highly vulnerable	0.1	5.1	> 5.1
	Vulnerable	0.3	5.7	> 5.7
	General	1.0	15.9	> 15.9
Corridor 1.2 G6.1	Highly vulnerable	0.1	4.6	> 4.6
	Vulnerable	0.3	5.2	> 5.2
	General	1.0	5.4	> 5.4
Corridor 1.2	Highly vulnerable	0.1	6.5	> 6.5

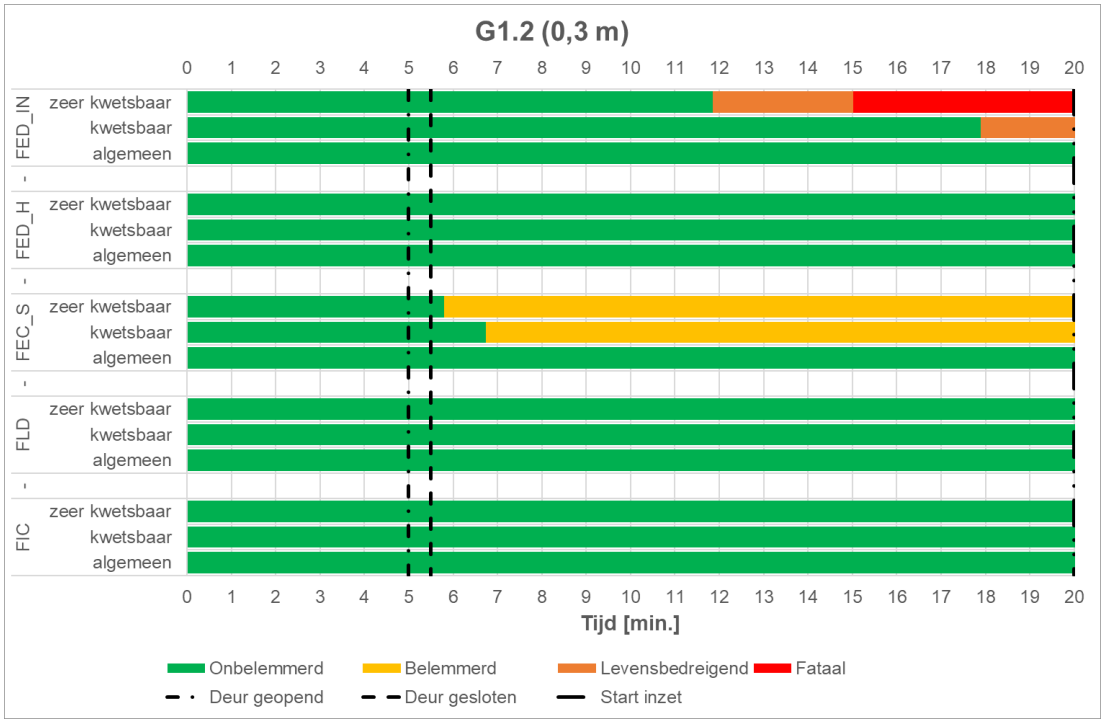
G6.2	Vulnerable	0.3	7.8	> 7.8
	General	1.0	> 55.0	-



Overview

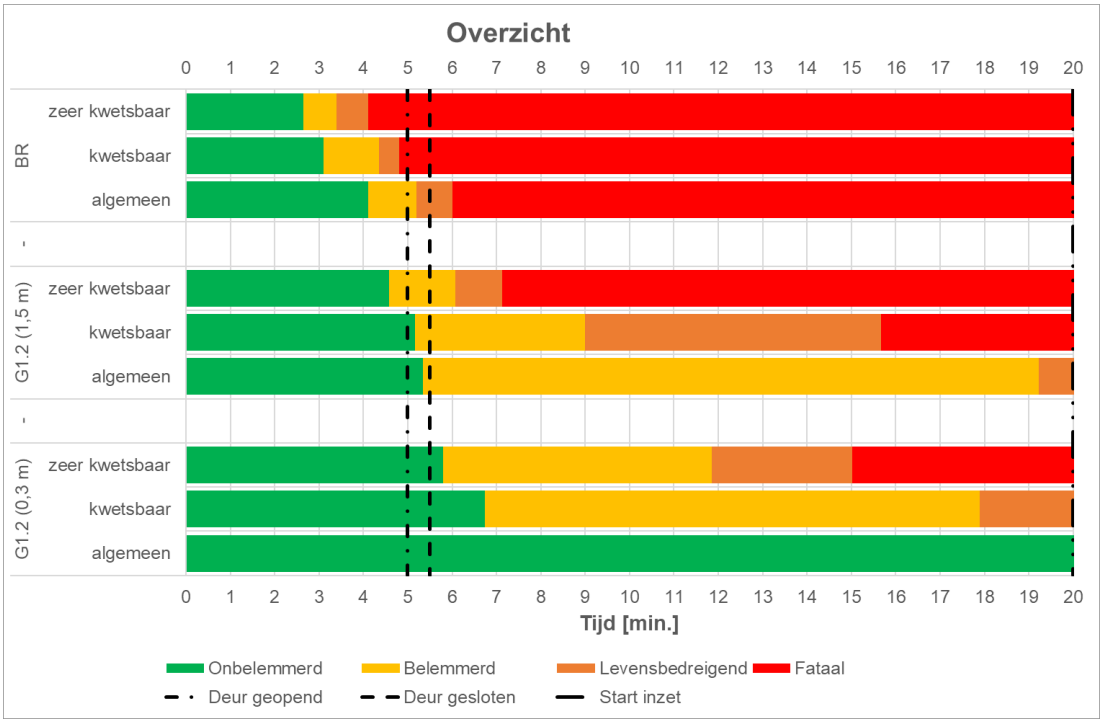


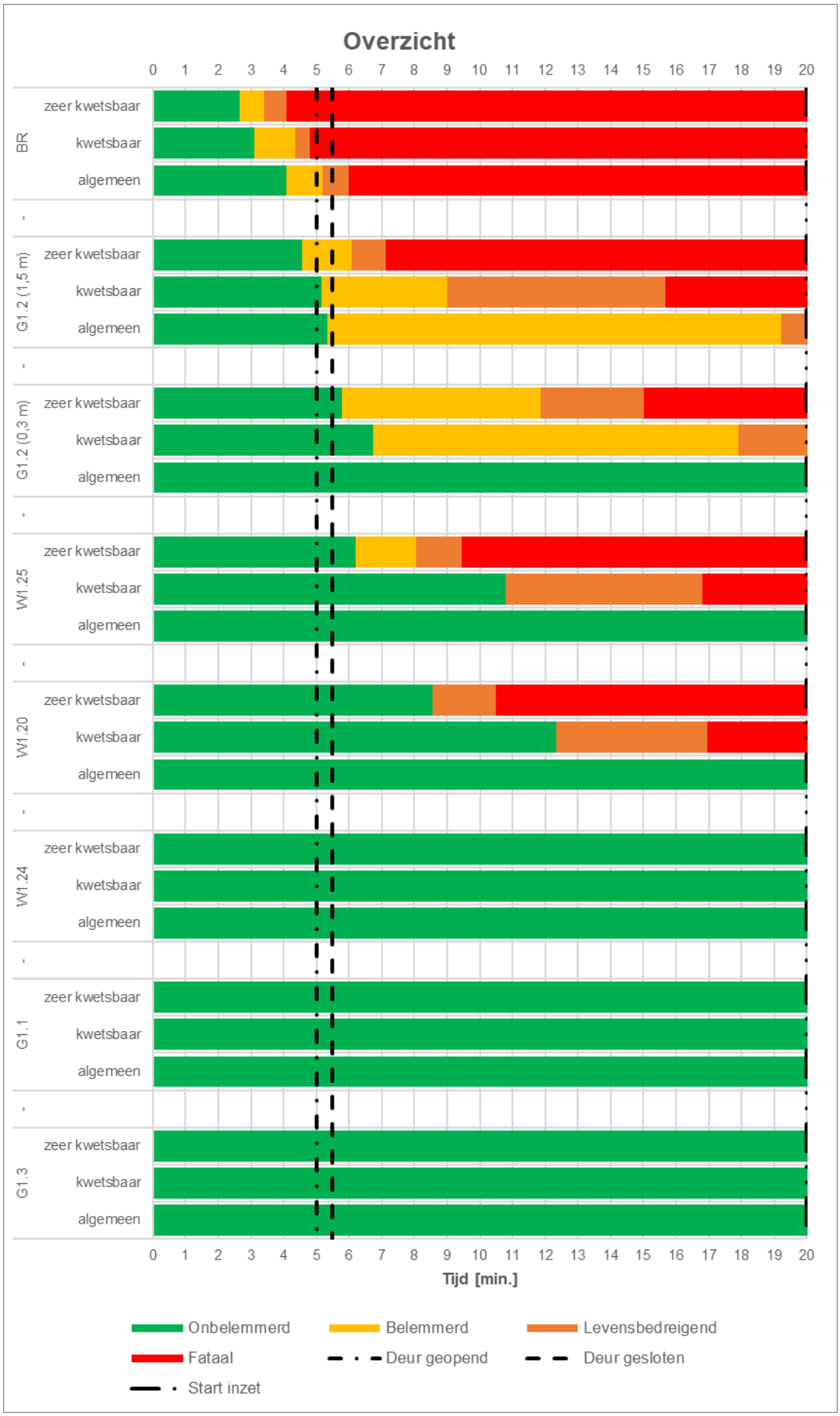

G1.2 (1,5 m)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
FED_IN
FED_H
FEC_S
FLD
FIC
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet


G1.2 (0,3 m)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
FED_IN
FED_H
FEC_S
FLD
FIC
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

	Overview	Escape	Survivability		
	Group	Safe [min.]	Impaired [min.]	Life-threatening [min.]	Fatal [min.]
Fire room 1.21 G1	Highly vulnerable	2.7	3.4	4.1	> 4.1
	Vulnerable	3.1	4.4	4.8	> 4.8
	General	4.1	5.2	6.0	> 6.0
Residence 1.20 G2	Highly vulnerable	8.6	8.6	10.5	> 10.5
	Vulnerable	12.4	12.4	17.0	> 17.0
	General	21.2	21.2	28.4	> 28.4
Residence 1.24 G3	Highly vulnerable	25.3	25.3	29.7	> 29.7
	Vulnerable	32.0	32.0	42.8	> 42.8
	General	> 55.0	-	-	-
Residence 1.25 G4	Highly vulnerable	6.2	8.1	9.5	> 9.5
	Vulnerable	10.8	10.8	16.8	> 16.8
	General	24.4	24.4	26.7	> 26.7
Corridor 1.2 G5.1	Highly vulnerable	4.6	5.9	7.0	> 7.0
	Vulnerable	5.1	9.9	20.9	> 20.9
	General	5.3	23.6	30.2	> 30.2
Corridor 1.2 G5.2	Highly vulnerable	5.1	13.3	17.7	> 17.7
	Vulnerable	5.7	21.7	28.1	> 28.1
	General	15.9	37.6	> 55.0	-
Corridor 1.2 G6.1	Highly vulnerable	4.6	6.3	7.3	> 7.3
	Vulnerable	5.2	8.2	10.5	> 10.5
	General	5.4	14.9	24.2	> 24.2
Corridor 1.2	Highly vulnerable	6.5	10.4	12.4	> 12.4

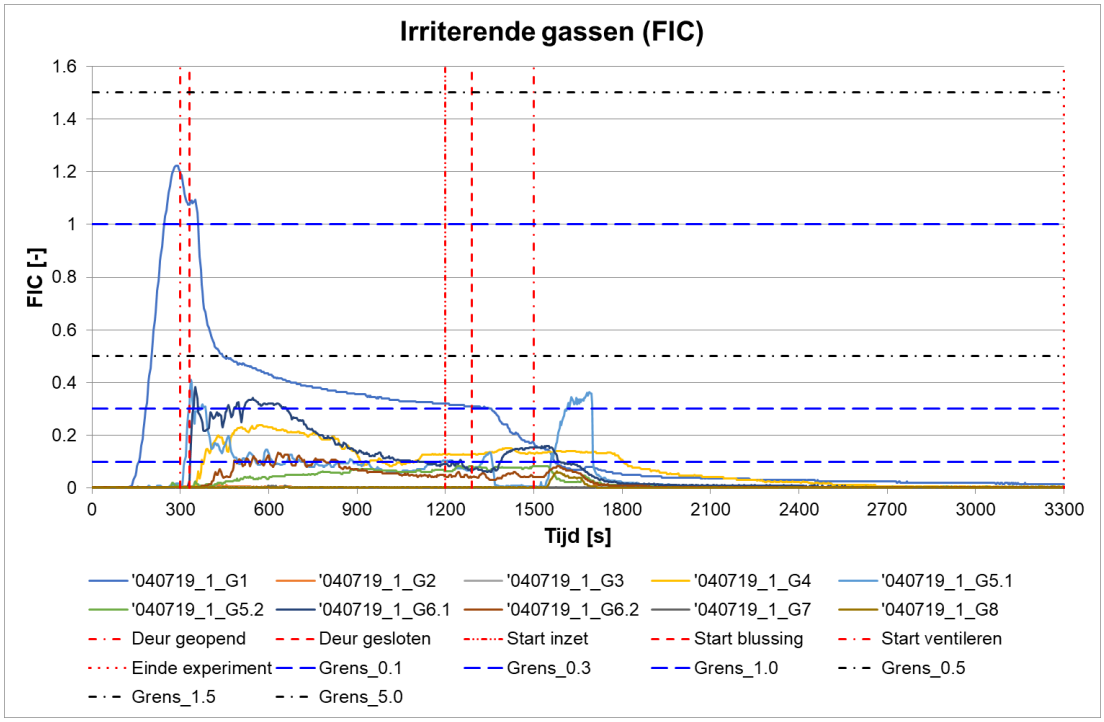
G6.2	Vulnerable	7.8	14.1	22.8	> 22.8
	General	24.4	24.4	26.5	> 26.5
Corridor 1.1 G7	Highly vulnerable	31.4	31.4	34.2	> 34.2
	Vulnerable	37.0	37.0	46.6	> 46.6
	General	> 55.0	-	-	-
Corridor 1.3 G8	Highly vulnerable	27.2	27.2	32.5	> 32.5
	Vulnerable	38.6	38.6	> 55.0	-
	General	> 55.0	-	-	-

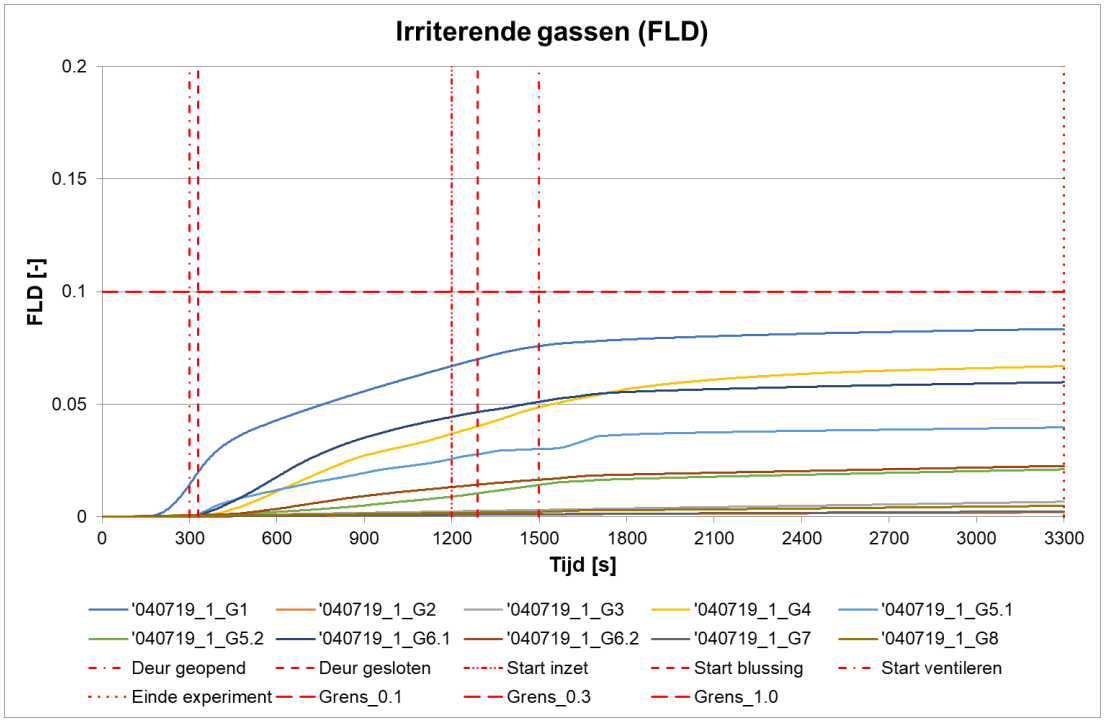



Overzicht
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (1,5 m)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (0,3 m)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Deur gesloten
Start inzet

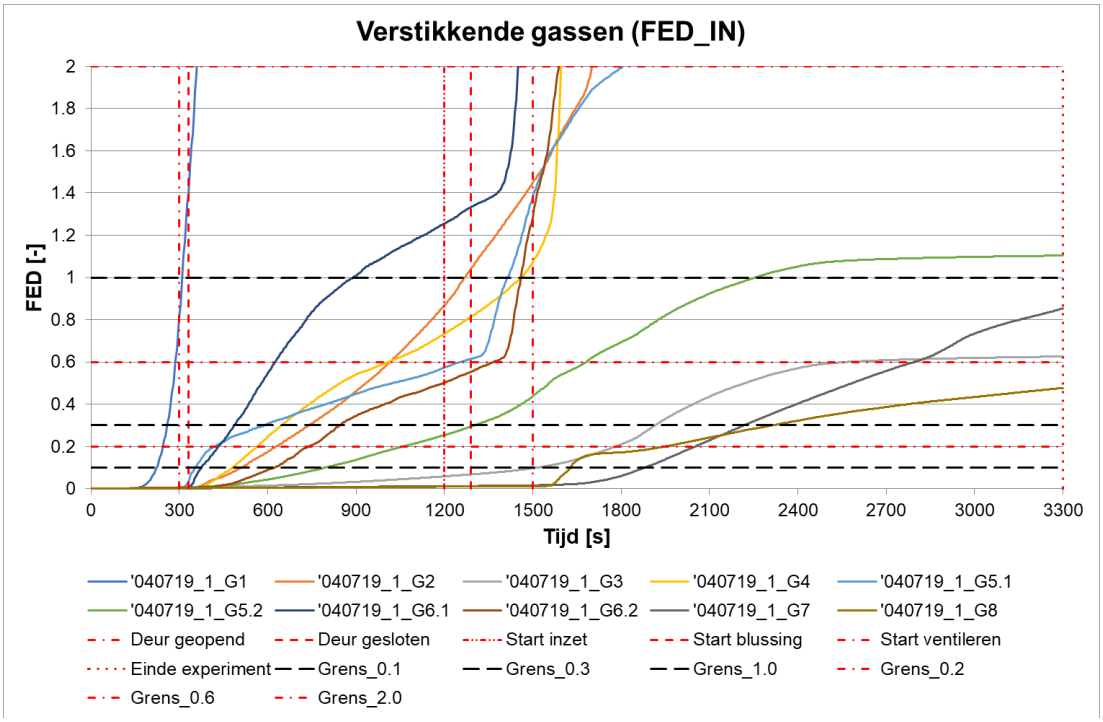
C. Deployment phase (20 - 55 minutes)

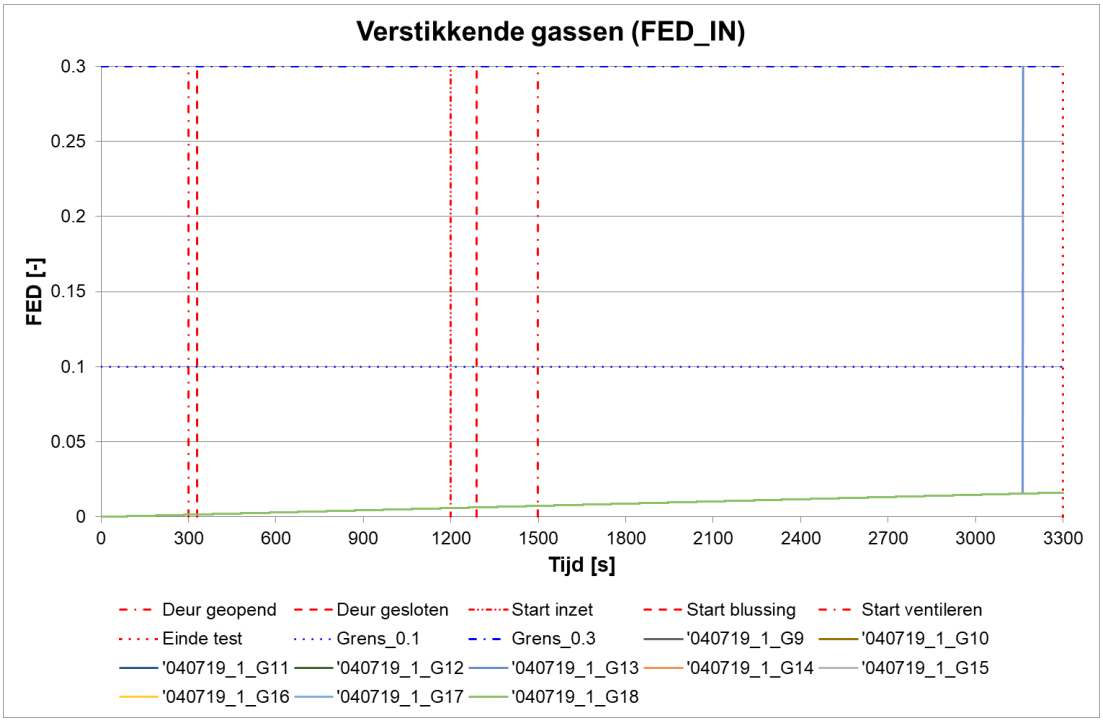
Irritant gases



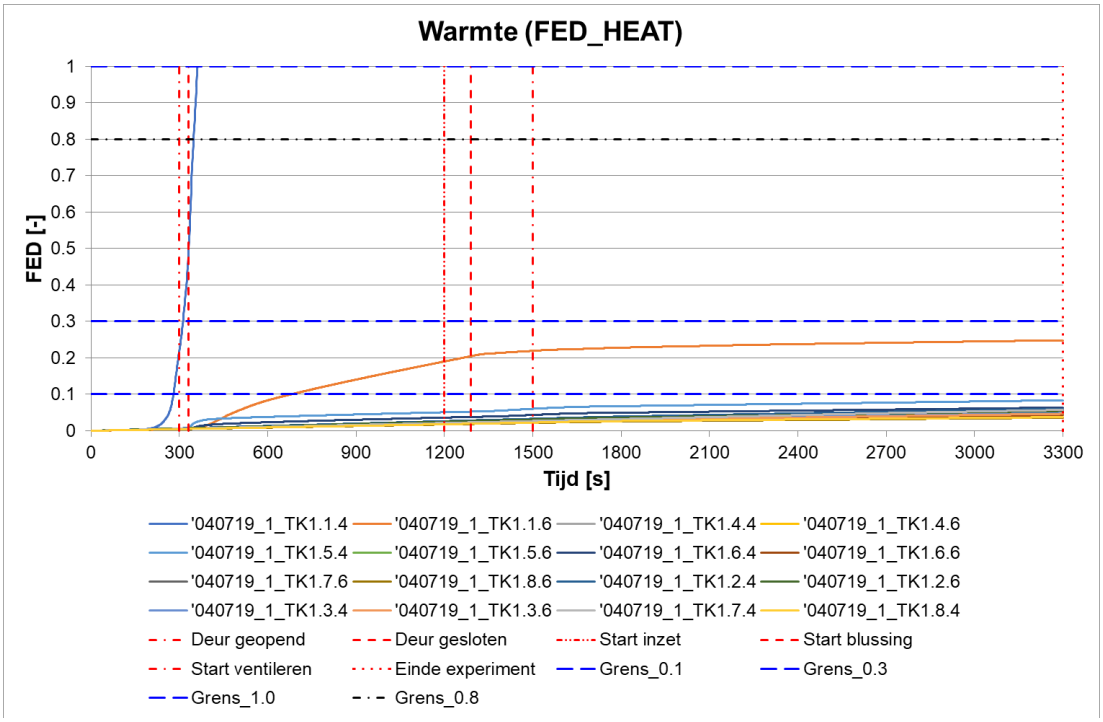


Asphyxiant gases

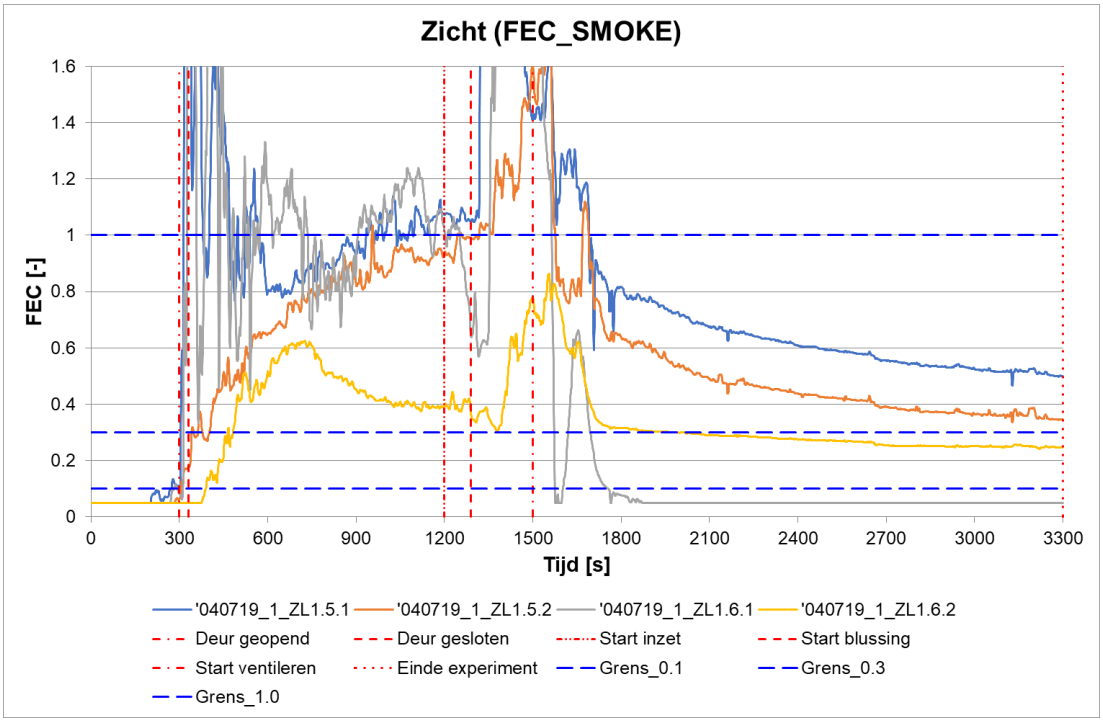




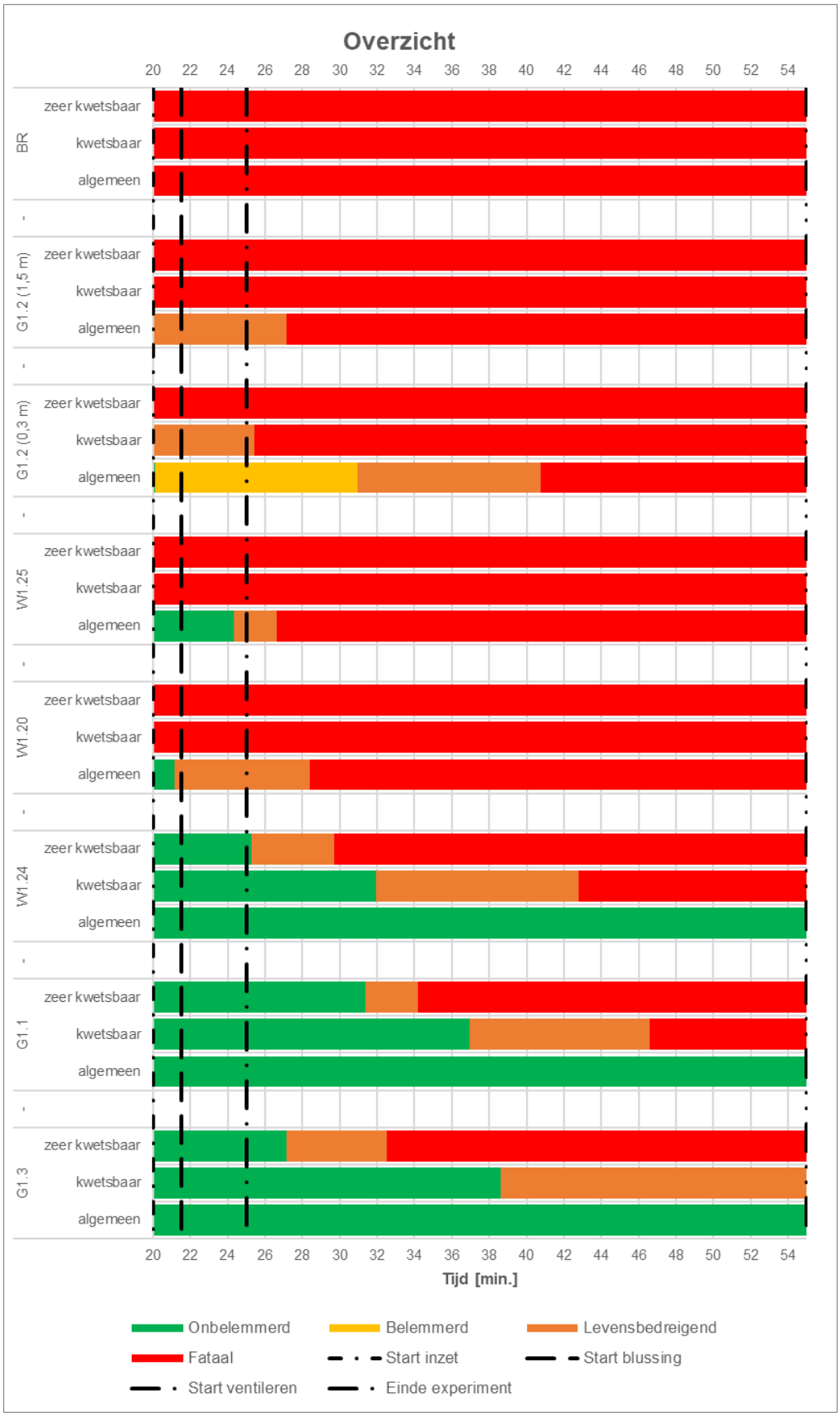
Heat



Visibility



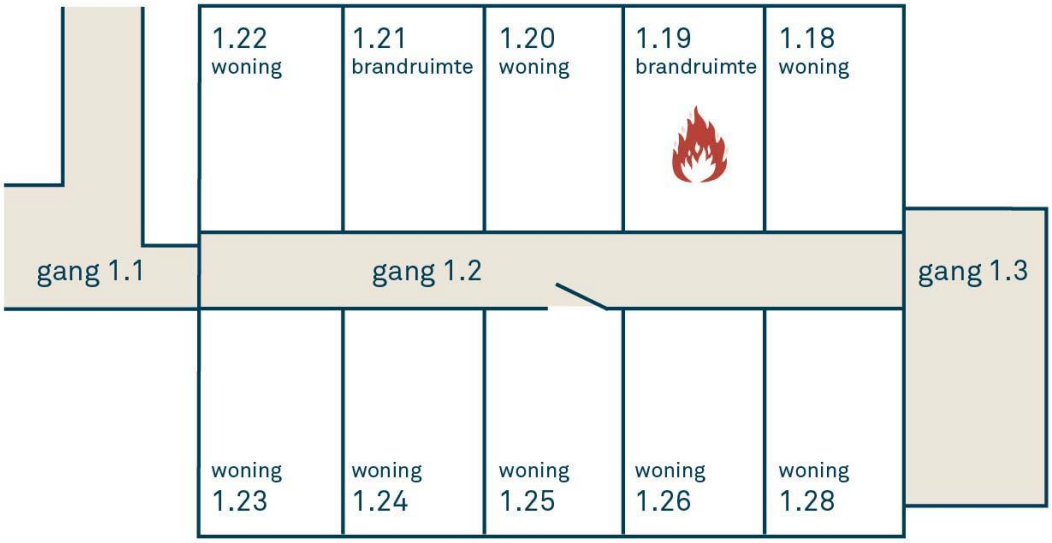
Overview


Overzicht
20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54
BR
G1.2 (1,5 m)
G1.2 (0,3 m)
W1.25
W1.20
W1.24
G1.1
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Start inzet
Start blussing
Start ventileren
Einde experiment

Test 17 (variant 0: door open) 04/07/19

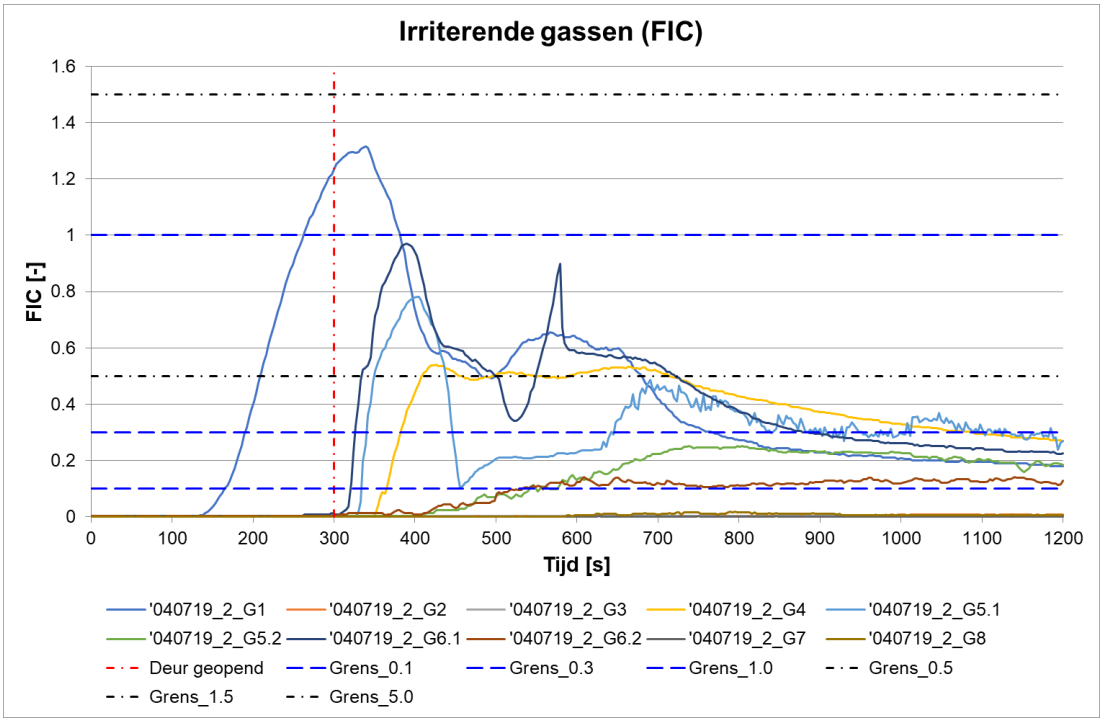
A. Description of the test

Test number	17
Date	04/07/2019
Morning / afternoon	Afternoon
Fire room	1.19
Door to the fire room open / closed	Open
Fire service deployment	None
Extra measures	None
Specific aspects	According to the deployment crew, the latch bolts on the doors of residences 1.21 and 1.28 had not been applied. Camera A6 failed at t = 25 minutes. Test was ended at t = 45 minutes instead of 55 minutes.



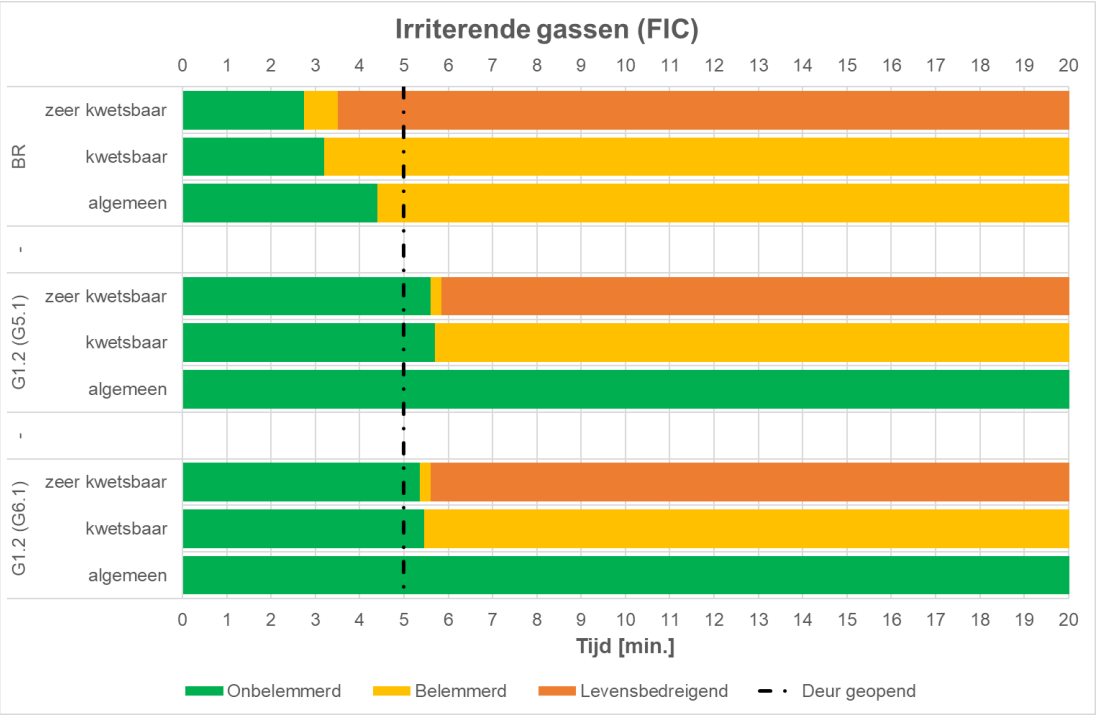
B. Escape phase (0 - 20 minutes)

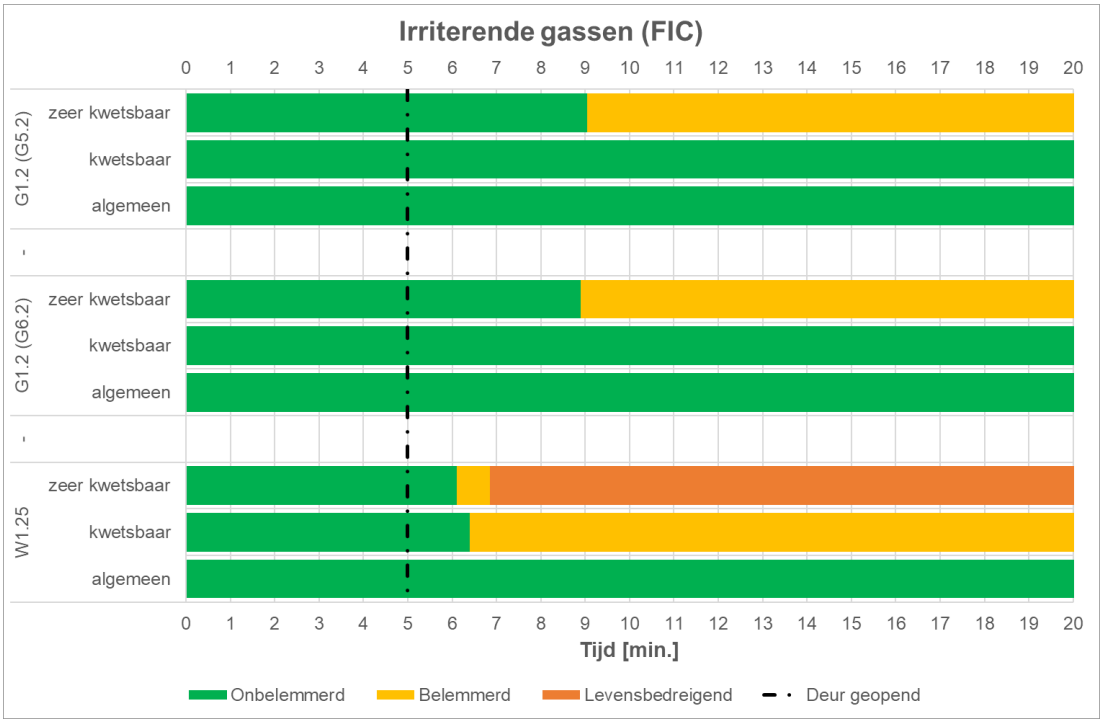
Irritant gases

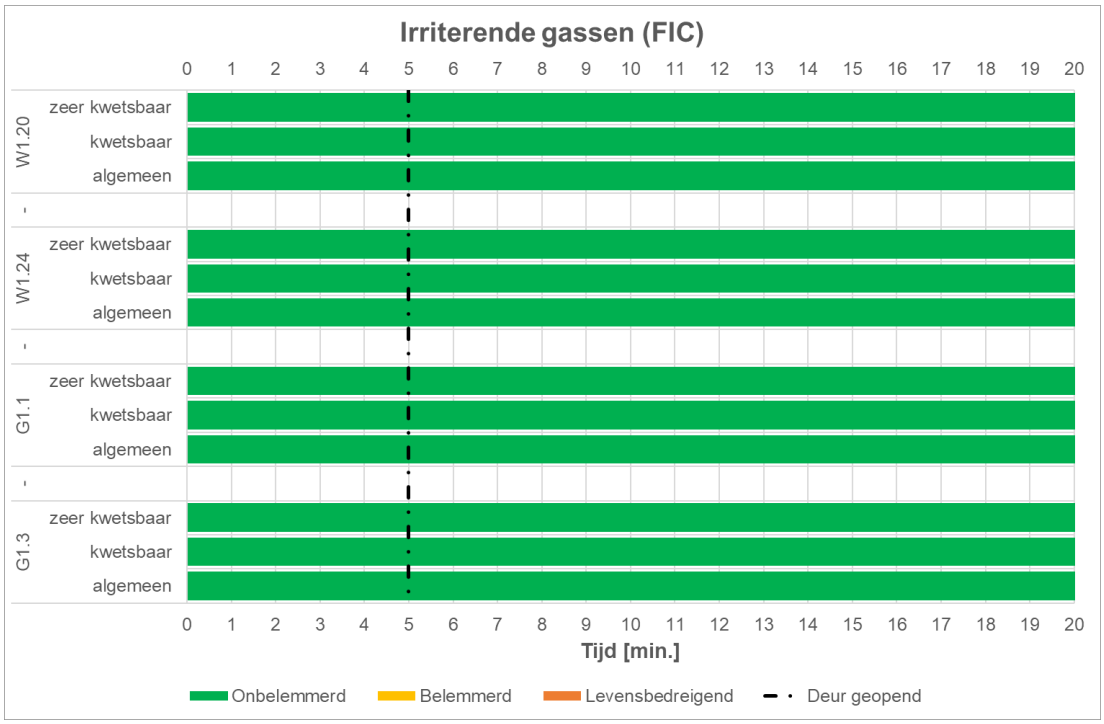


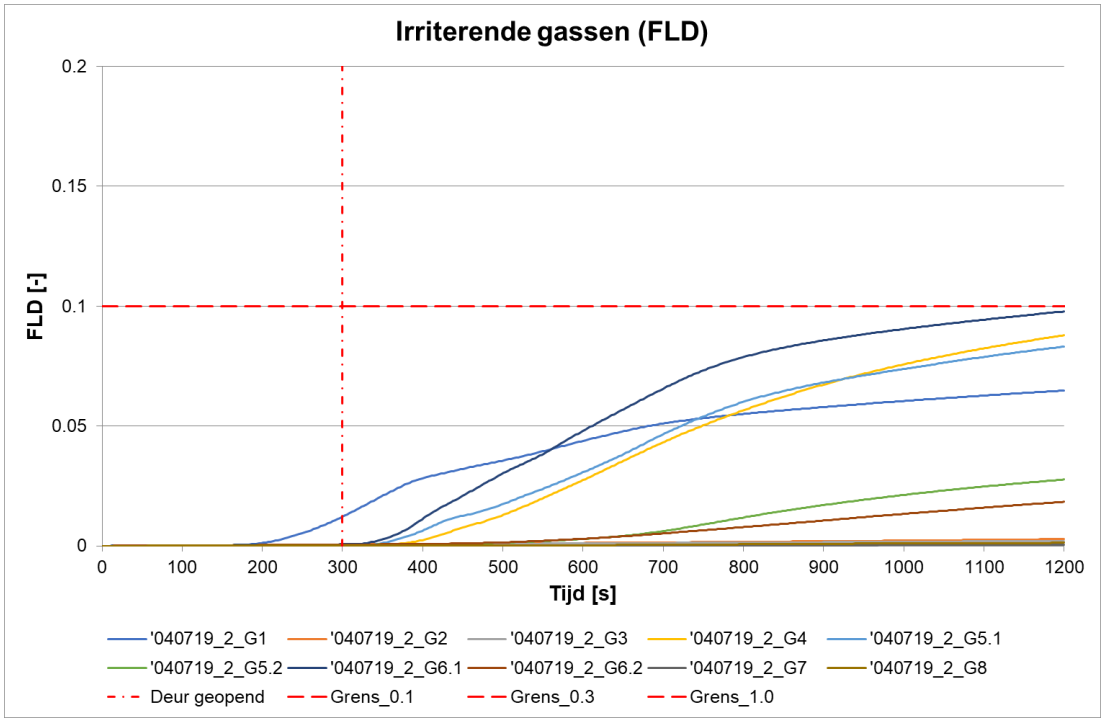
	Irritant gases (FIC)				
	Group	Threshold [-]	Safe [min.]	Impaired [min.]	Life-threatening [min.]
Fire room 1.19 G1	Highly vulnerable	0.1/0.5	2.8	3.5	> 3.5
	Vulnerable	0.3/1.5	3.2	> 55.0	-
	General	1.0/5.0	4.4	> 55.0	-
Residence 1.20 G2	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Residence 1.24 G3	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-

Residence 1.25 G4	Highly vulnerable	0.1/0.5	6.1	6.9	> 6.9
	Vulnerable	0.3/1.5	6.4	> 55.0	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.5	5.6	5.9	> 5.9
	Vulnerable	0.3/1.5	5.7	> 55.0	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.5	9.1	> 55.0	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.5	5.4	5.6	> 5.6
	Vulnerable	0.3/1.5	5.5	> 55.0	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.5	8.9	> 55.0	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-


Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G5.1)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.1)
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend

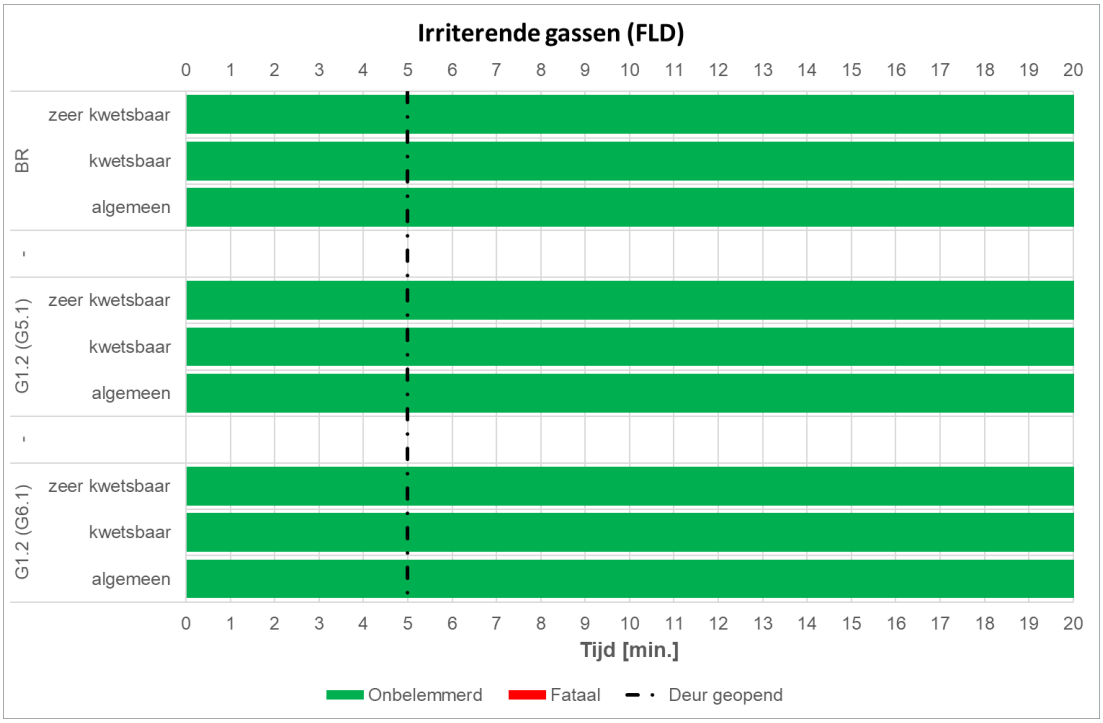

Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend


Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend

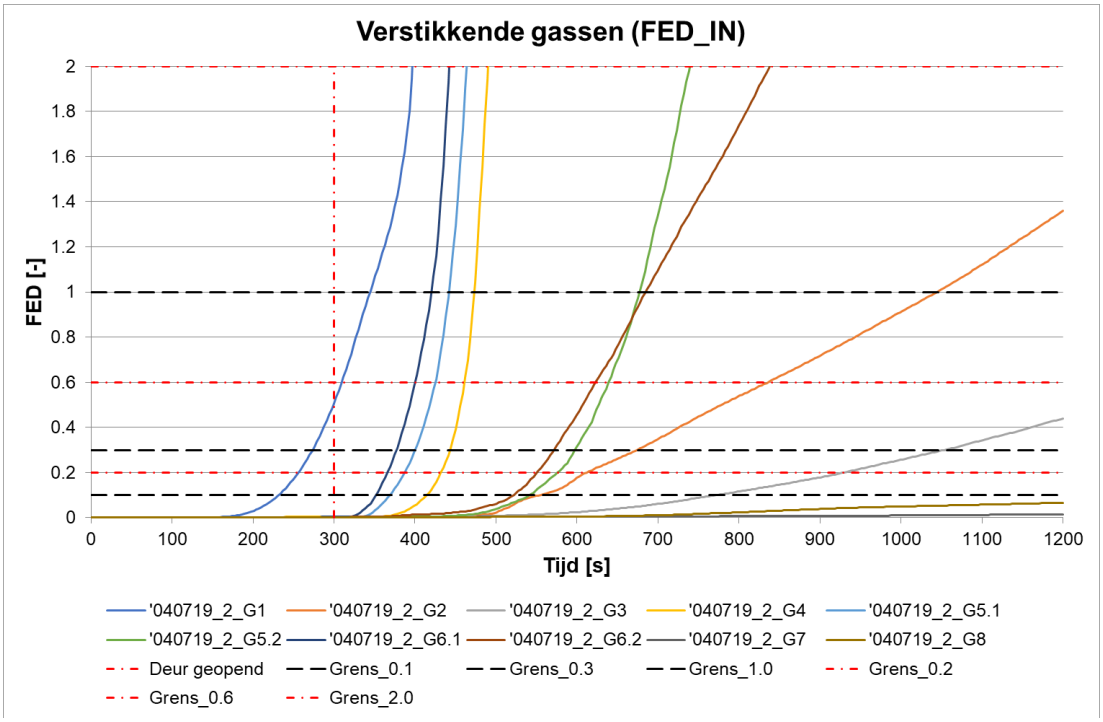

Irriterende gassen (FLD)
0.2
0.15
0.1
0.05
0
FLD [-]
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
Tijd [s]
'040719_2_G1
'040719_2_G2
'040719_2_G3
'040719_2_G4
'040719_2_G5.1
'040719_2_G5.2
'040719_2_G6.1
'040719_2_G6.2
'040719_2_G7
'040719_2_G8
Deur geopend
Grens_0.1
Grens_0.3
Grens_1.0

	Irritant gases (FLD)			
	Group	Threshold [-]	Safe [min.]	Impaired [min.]
Fire room 1.19 G1	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.20 G2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.24 G3	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.25 G4	Highly vulnerable	0.1	24.9	> 24.9
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G5.1	Highly vulnerable	0.1	29.5	> 29.5
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G5.2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G6.1	Highly vulnerable	0.1	21.2	> 21.2
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G6.2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-

	General	1.0	> 55.0	-
Corridor 1.1 G7	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.3 G8	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-

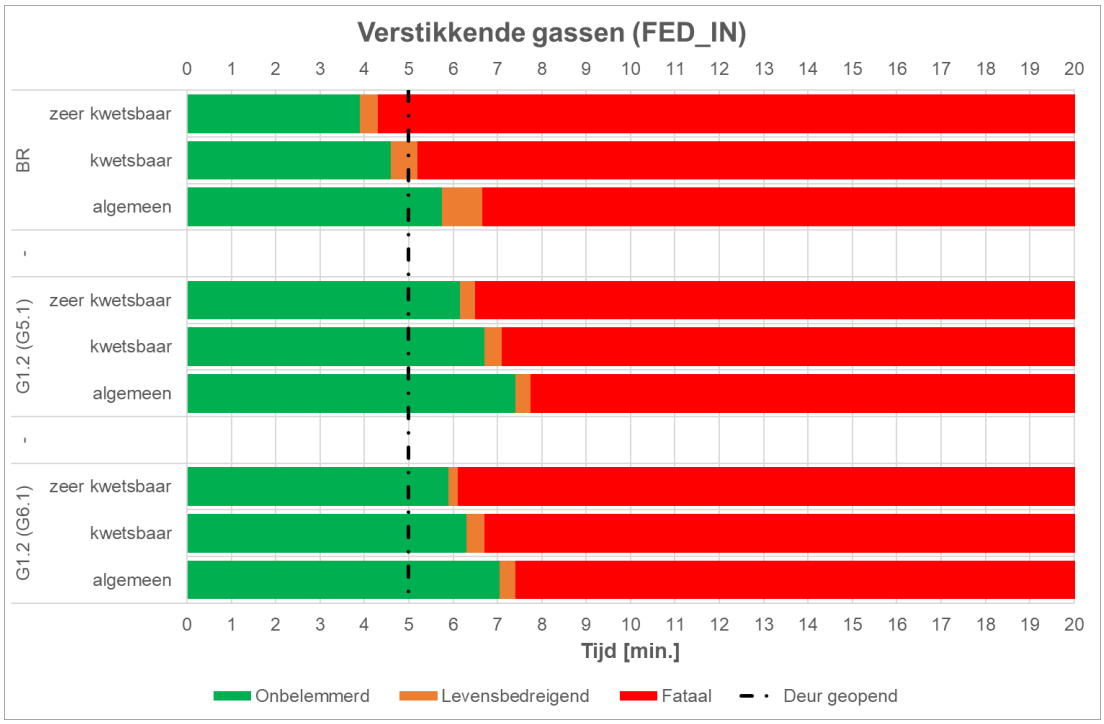


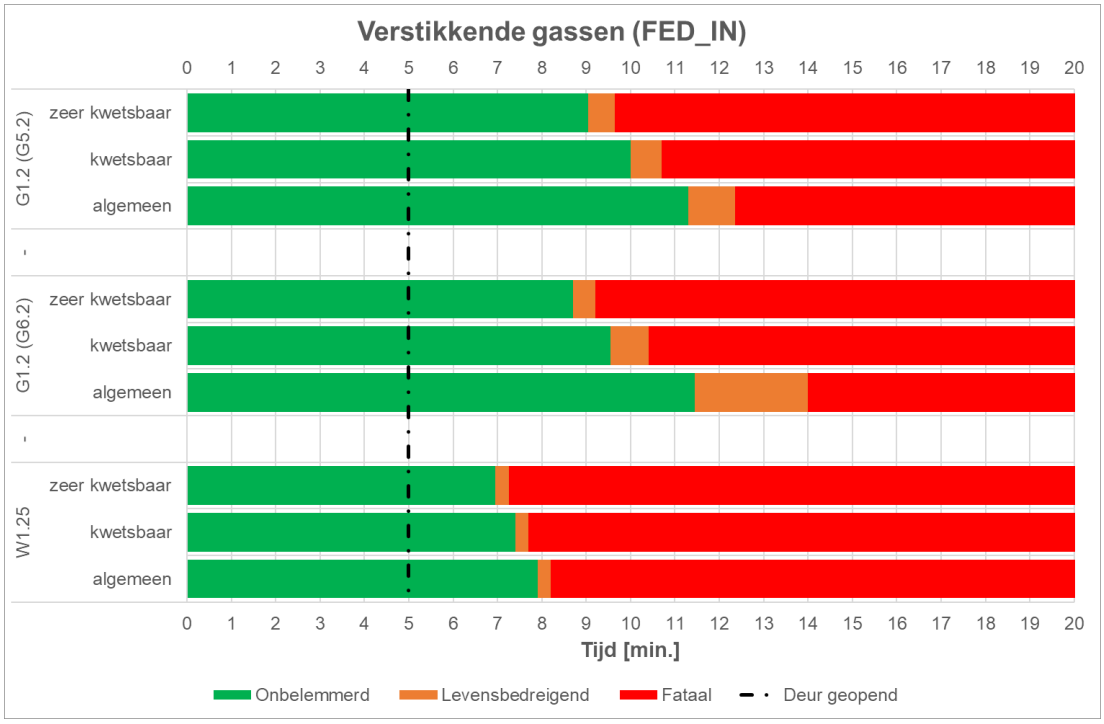
Asphyxiant gases

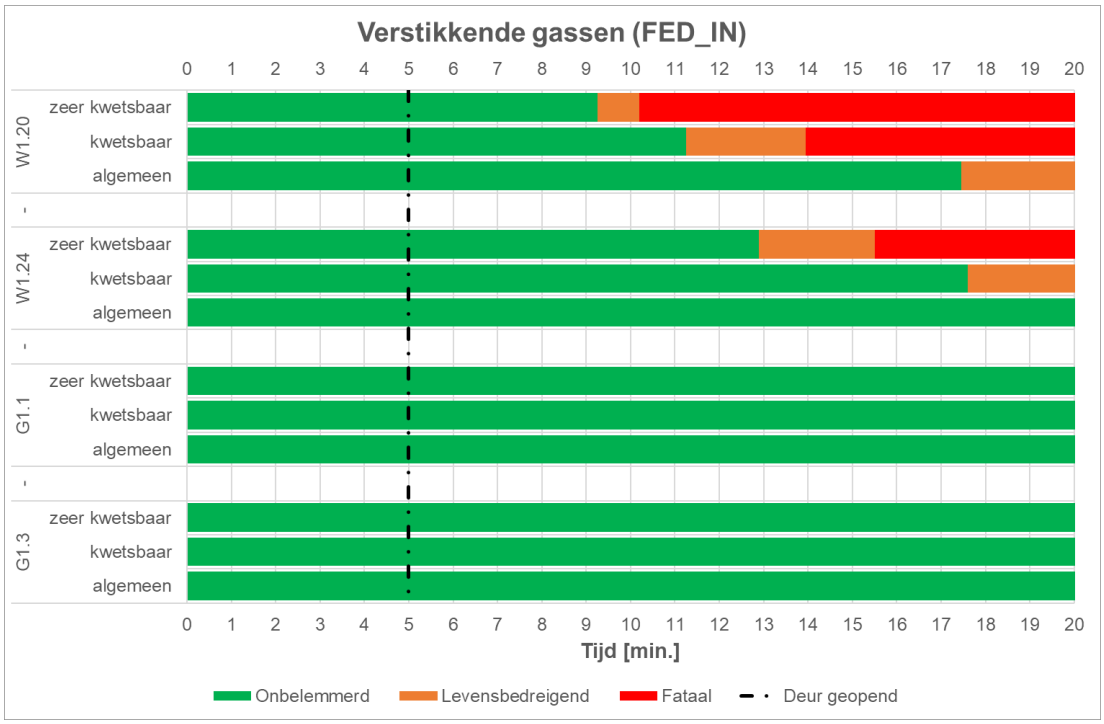


		Asphyxiant gases (FED_IN)			
	Group	Threshold [-]	Safe [min.]	Life-threatening [min.]	Fatal [min.]
Fire room 1.19 G1	Highly vulnerable	0.1/0.2	3.9	4.3	> 4.3
	Vulnerable	0.3/0.6	4.6	5.2	> 5.2
	General	1.0/2.0	5.8	6.7	> 6.7
Residence 1.20 G2	Highly vulnerable	0.1/0.2	9.3	10.2	> 10.2
	Vulnerable	0.3/0.6	11.3	14.0	> 14.0
	General	1.0/2.0	17.5	23.5	> 23.5
Residence 1.24 G3	Highly vulnerable	0.1/0.2	12.9	15.5	> 15.5
	Vulnerable	0.3/0.6	17.6	22.5	> 22.5
	General	1.0/2.0	27.8	37.5	> 37.5
Residence 1.25	Highly vulnerable	0.1/0.2	7.0	7.3	> 7.3

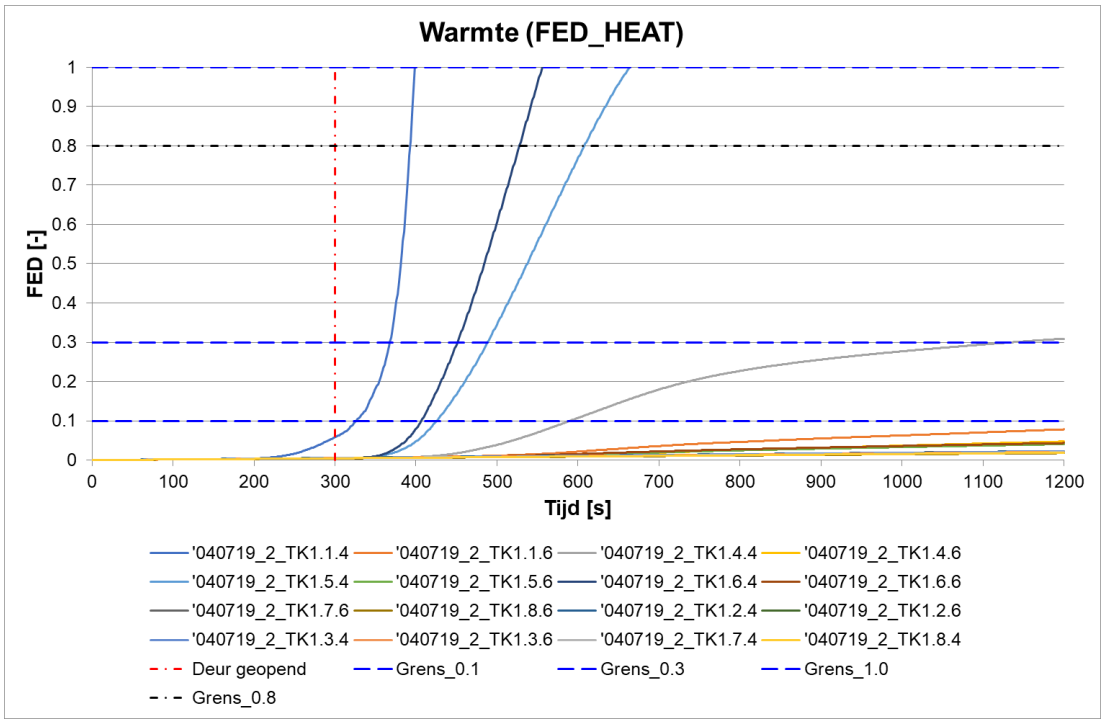
G4	Vulnerable	0.3/0.6	7.4	7.7	> 7.7
	General	1.0/2.0	7.9	8.2	> 8.2
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.2	6.2	6.5	> 6.5
	Vulnerable	0.3/0.6	6.7	7.1	> 7.1
	General	1.0/2.0	7.4	7.8	> 7.8
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.2	9.1	9.7	> 9.7
	Vulnerable	0.3/0.6	10.0	10.7	> 10.7
	General	1.0/2.0	11.3	12.4	> 12.4
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.2	5.9	6.1	> 6.1
	Vulnerable	0.3/0.6	6.3	6.7	> 6.7
	General	1.0/2.0	7.1	7.4	> 7.4
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.2	8.7	9.2	> 9.2
	Vulnerable	0.3/0.6	9.6	10.4	> 10.4
	General	1.0/2.0	11.5	14.0	> 14.0
Corridor 1.1 G7	Highly vulnerable	0.1/0.2	40.3	54.2	> 54.2
	Vulnerable	0.3/0.6	> 55.0	-	-
	General	1.0/2.0	> 55.0	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.2	26.6	> 55.0	-
	Vulnerable	0.3/0.6	> 55.0	-	-
	General	1.0/2.0	> 55.0	-	-


Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G5.1)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.1)
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend


Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend

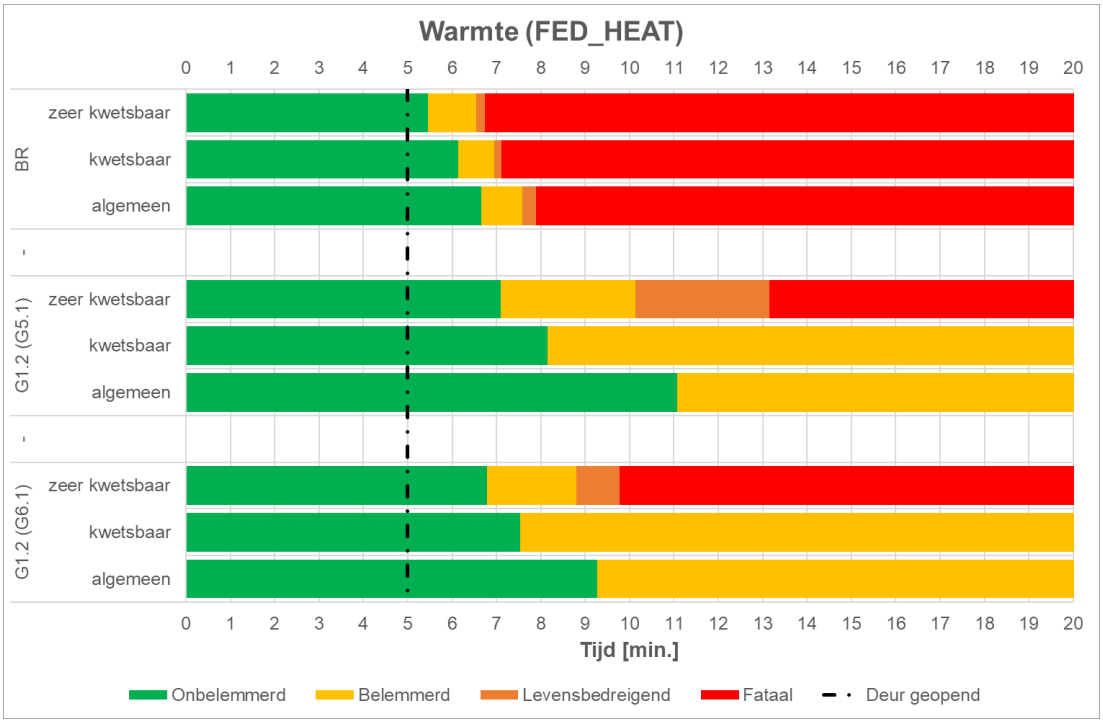

Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend

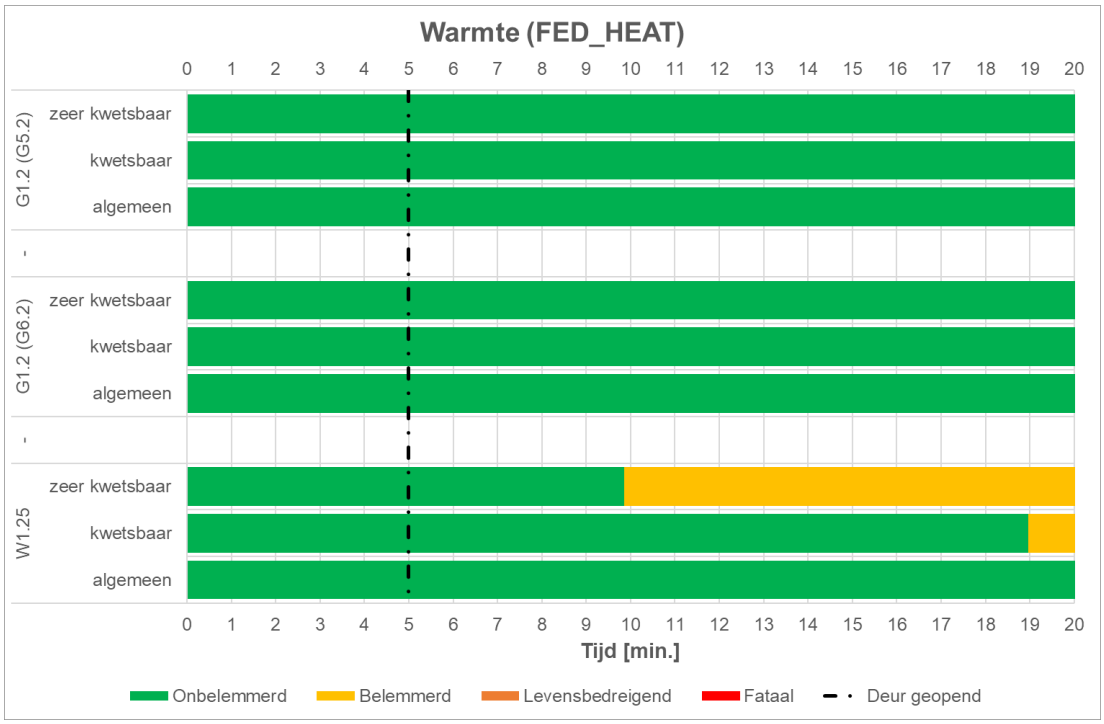
Heat

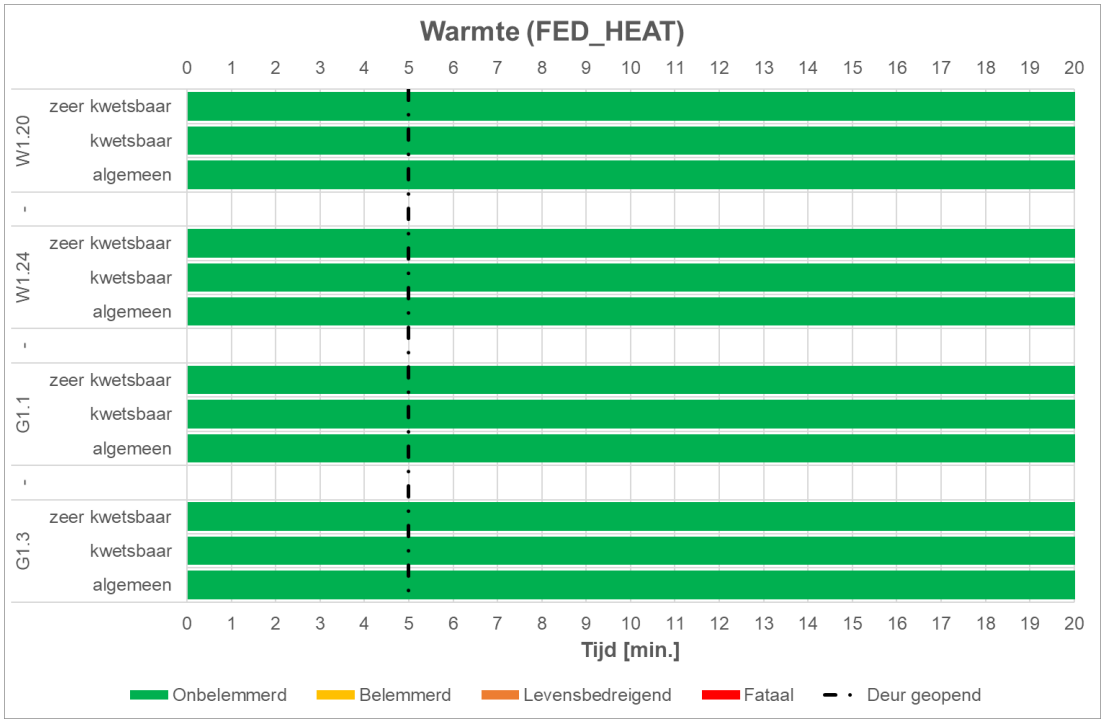

Warmte (FED_HEAT)
FED [-]
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
Tijd [s]
'040719_2_TK1.1.4
'040719_2_TK1.1.6
'040719_2_TK1.4.4
'040719_2_TK1.4.6
'040719_2_TK1.5.4
'040719_2_TK1.5.6
'040719_2_TK1.6.4
'040719_2_TK1.6.6
'040719_2_TK1.7.6
'040719_2_TK1.8.6
'040719_2_TK1.2.4
'040719_2_TK1.2.6
'040719_2_TK1.3.4
'040719_2_TK1.3.6
'040719_2_TK1.7.4
'040719_2_TK1.8.4
Deur geopend
Grens_0.1
Grens_0.3
Grens_1.0
Grens_0.8

		Heat (FED_HEAT)				
	Group	Threshold [-]	Safe [min.]	Impaired [min.]	Life-threatening [min.]	Fatal [min.
Fire room 1.19 G1	Highly vulnerable	0.1/0.8/1.2	5.5	6.6	6.7	> 6.7
	Vulnerable	0.3/2.4/12.0	6.1	7.0	7.1	> 7.1
	General	1.0/8.0/12.0	6.7	7.6	7.9	> 7.9
Residence 1.20 G2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Residence 1.24 G3	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Residence 1.25 G4	Highly vulnerable	0.1/0.8/1.2	9.9	> 55.0	-	-
	Vulnerable	0.3/2.4/12.0	19.0	> 55.0	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.8/1.2	7.1	10.1	13.2	> 13.2
	Vulnerable	0.3/2.4/12.0	8.2	> 55.0	-	-
	General	1.0/8.0/12.0	11.1	> 55.0	-	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.8/1.2	49.6	> 55.0	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.8/1.2	6.8	8.8	9.8	> 9.8

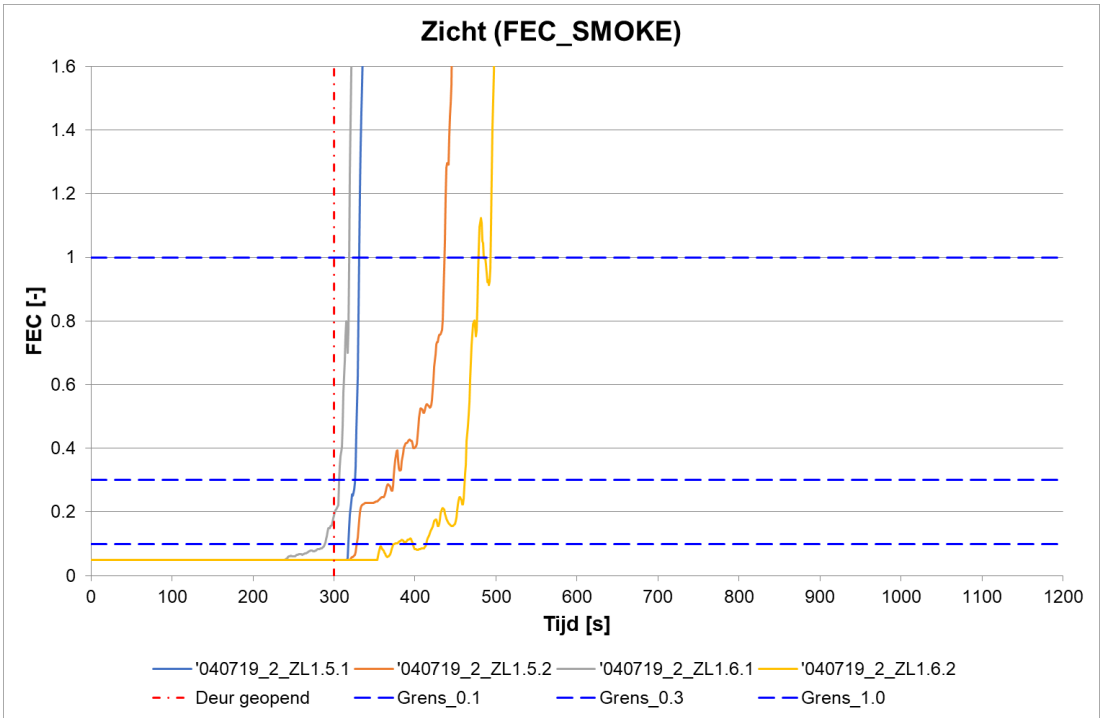
	Vulnerable	0.3/2.4/12.0	7.5	39.8	> 55.0	-
	General	1.0/8.0/12.0	9.3	-	-	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.8/1.2	51.1	> 55.0	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-




Warmte (FED_HEAT)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend

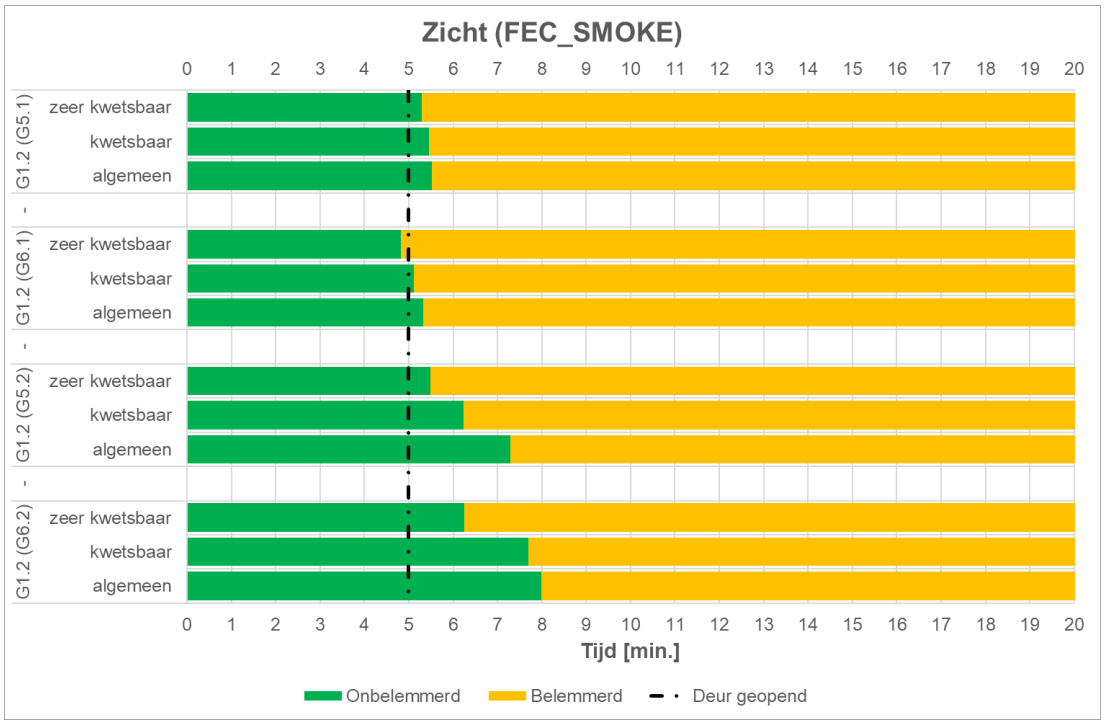

Warmte (FED_HEAT)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend

Visibility

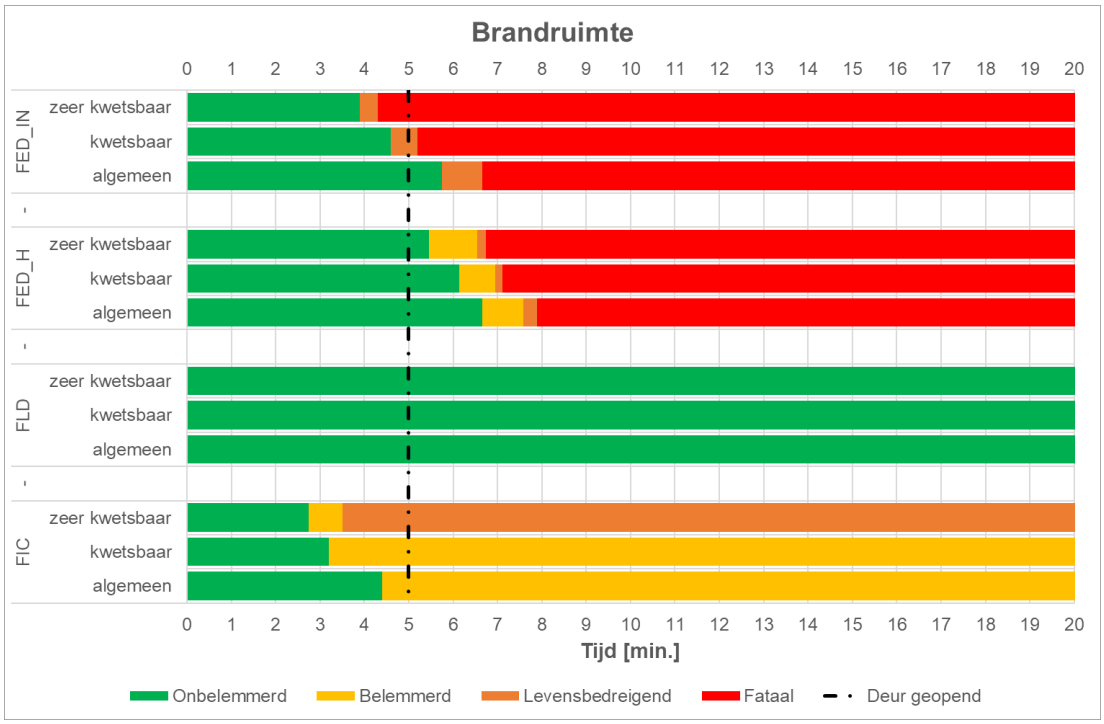


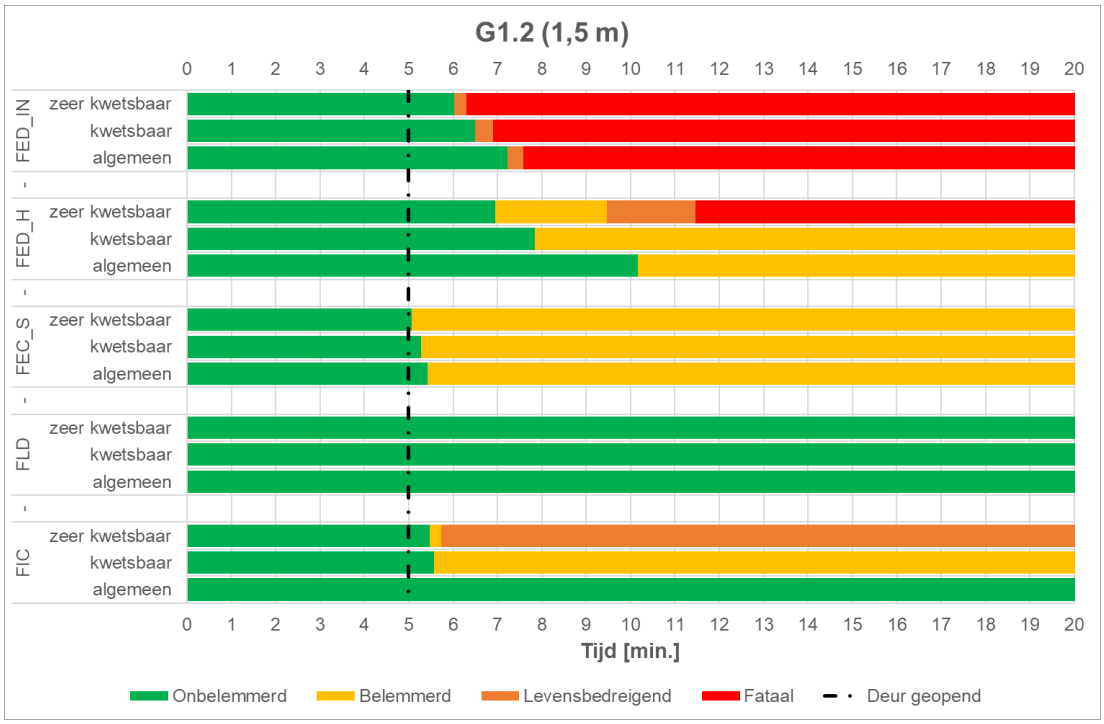
	Visibility (FEC_SMOKE)			
	Group	Threshold [-]	Safe [min.]	Impaired [min.]
Corridor 1.2 G5.1	Highly vulnerable	0.1	5.3	> 5.3
	Vulnerable	0.3	5.5	> 5.5
	General	1.0	5.5	> 5.5
Corridor 1.2 G5.2	Highly vulnerable	0.1	5.5	> 5.5
	Vulnerable	0.3	6.2	> 6.2
	General	1.0	7.3	> 7.3
Corridor 1.2 G6.1	Highly vulnerable	0.1	4.8	> 4.8
	Vulnerable	0.3	5.1	> 5.1
	General	1.0	5.3	> 5.3
Corridor 1.2	Highly vulnerable	0.1	6.3	> 6.3

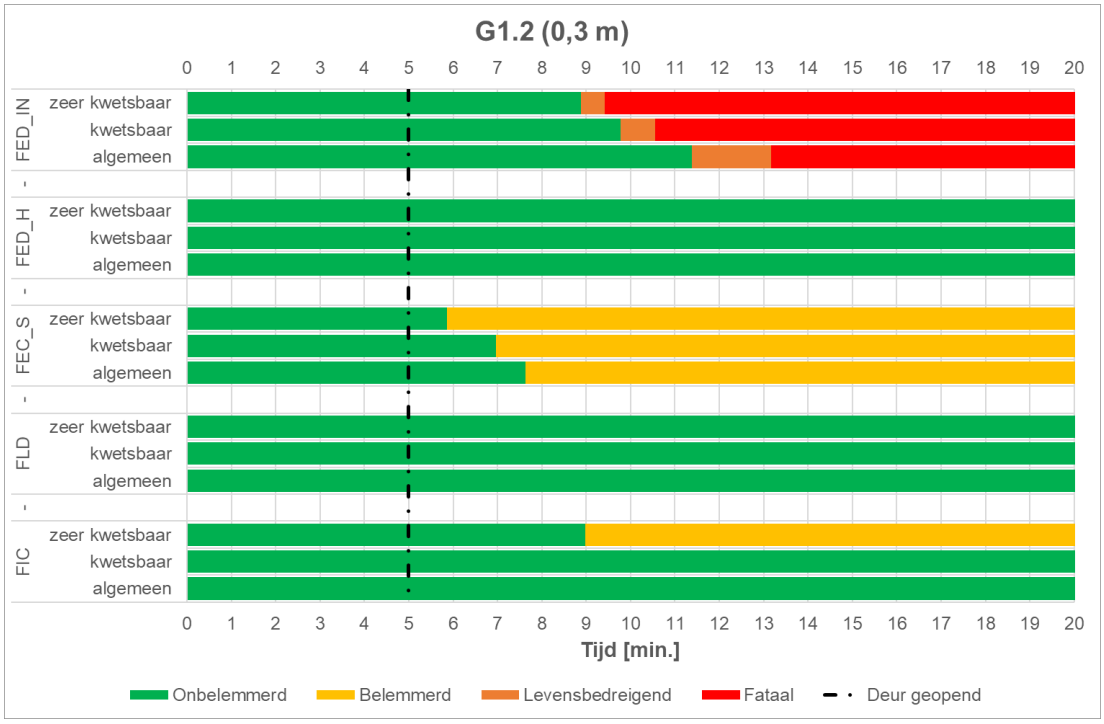
G6.2	Vulnerable	0.3	7.7	> 7.7
	General	1.0	8.0	> 8.0



Overview

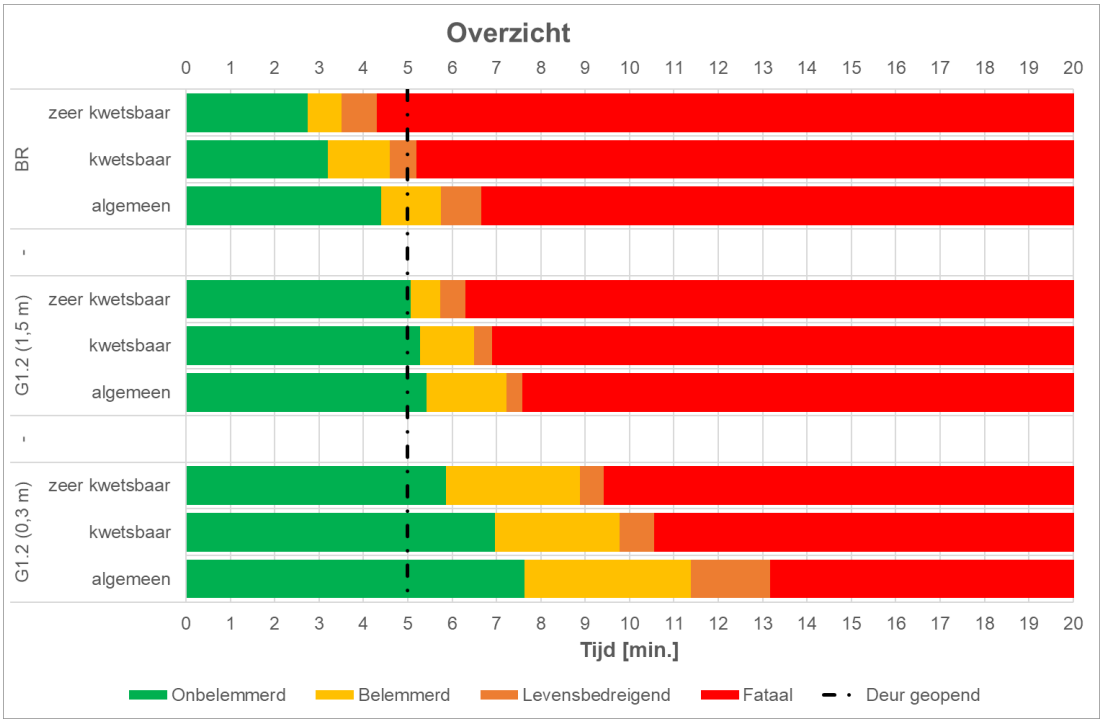


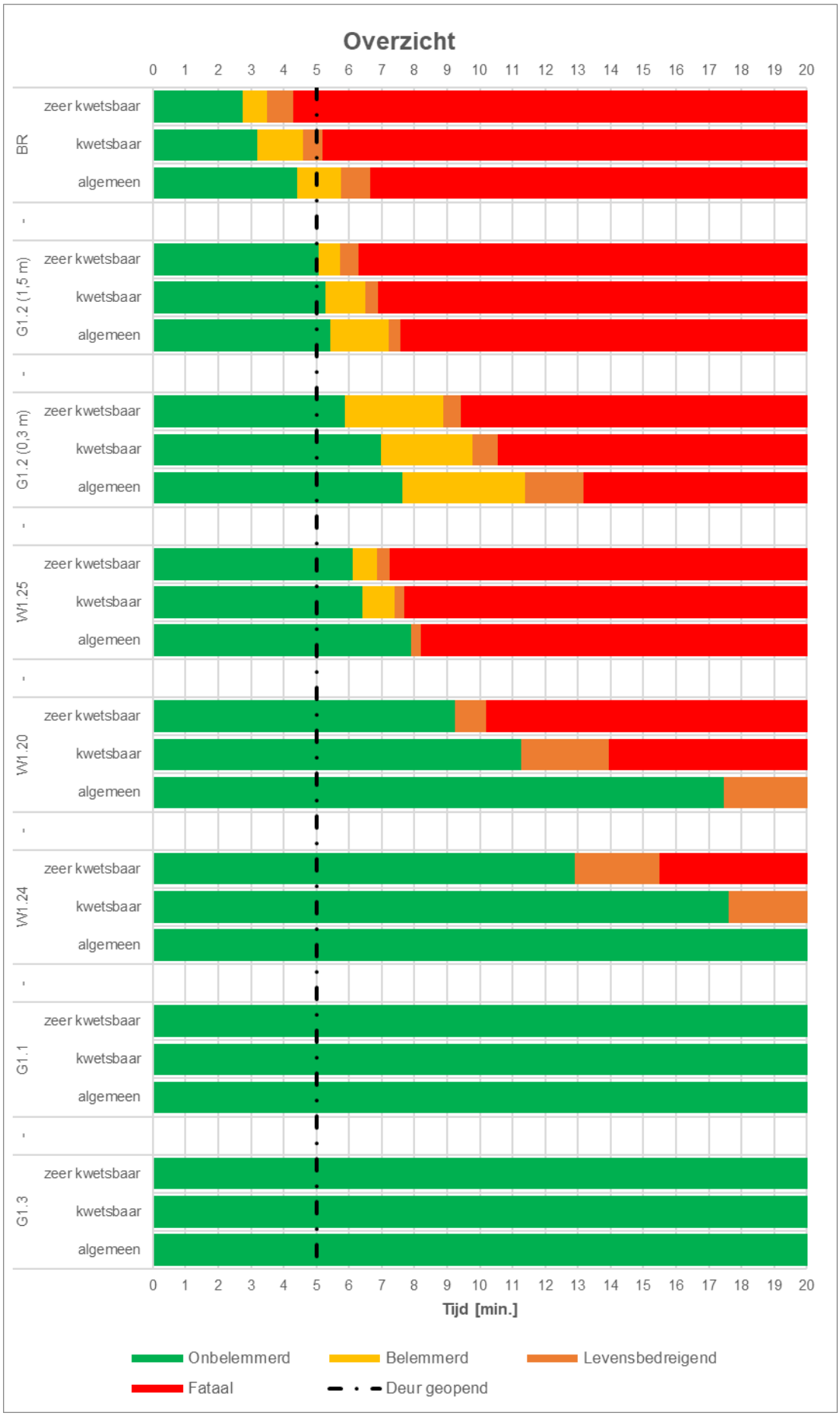

G1.2 (1,5 m)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
FED_IN
FED_H
FEC_S
FLD
FIC
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend


G1.2 (0,3 m)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
FED_IN
FED_H
FEC_S
FLD
FIC
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend

	Overview	Escape	Survivability		
	Group	Safe [min.]	Impaired [min.]	Life-threatening [min.]	Fatal [min.]
Fire room 1.19 G1	Highly vulnerable	2.8	3.5	4.3	> 4.3
	Vulnerable	3.2	4.6	5.2	> 5.2
	General	4.4	5.8	6.7	> 6.7
Residence 1.20 G2	Highly vulnerable	9.3	9.3	10.2	> 10.2
	Vulnerable	11.3	11.3	14.0	> 14.0
	General	17.5	17.5	23.5	> 23.5
Residence 1.24 G3	Highly vulnerable	12.9	12.9	15.5	> 15.5
	Vulnerable	17.6	17.6	22.5	> 22.5
	General	27.8	27.8	37.5	> 37.5
Residence 1.25 G4	Highly vulnerable	6.1	6.9	7.3	> 7.3
	Vulnerable	6.4	7.4	7.7	> 7.7
	General	7.9	7.9	8.2	> 8.2
Corridor 1.2 G5.1	Highly vulnerable	5.3	5.9	6.5	> 6.5
	Vulnerable	5.5	6.7	7.1	> 7.1
	General	5.5	7.4	7.8	> 7.8
Corridor 1.2 G5.2	Highly vulnerable	5.5	9.1	9.7	> 9.7
	Vulnerable	6.2	10.0	10.7	> 10.7
	General	7.3	11.3	12.4	> 12.4
Corridor 1.2 G6.1	Highly vulnerable	4.8	5.6	6.1	> 6.1
	Vulnerable	5.1	6.3	6.7	> 6.7
	General	5.3	7.1	7.4	> 7.4
Corridor 1.2	Highly vulnerable	6.3	8.7	9.2	> 9.2

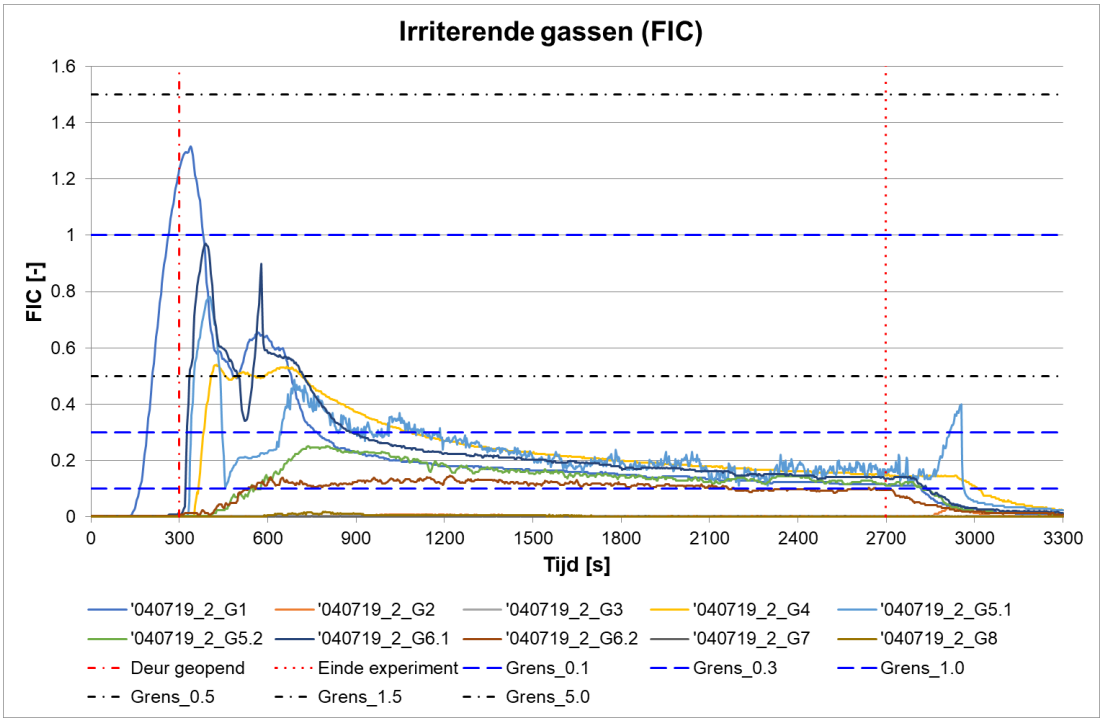
G6.2	Vulnerable	7.7	9.6	10.4	> 10.4
	General	8.0	11.5	14.0	> 14.0
Corridor 1.1 G7	Highly vulnerable	40.3	40.3	54.2	> 54.2
	Vulnerable	> 55.0	-	-	-
	General	> 55.0	-	-	-
Corridor 1.3 G8	Highly vulnerable	26.6	26.6	> 55.0	-
	Vulnerable	> 55.0	-	-	-
	General	> 55.0	-	-	-

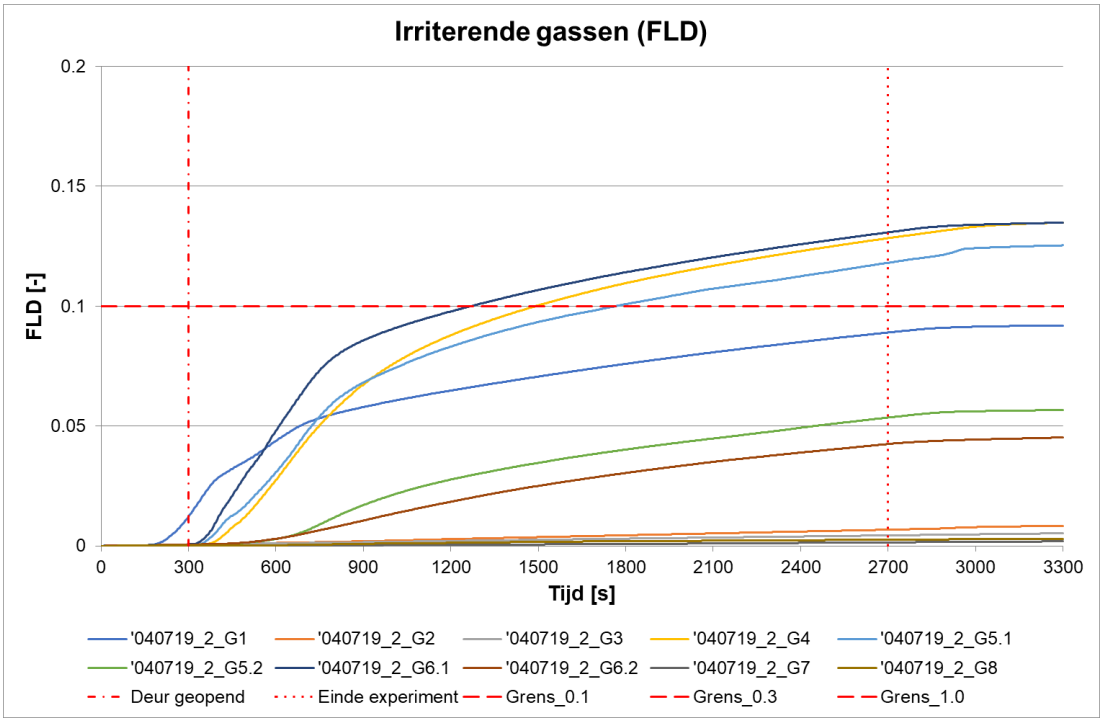



Overzicht
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (1,5 m)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (0,3 m)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend

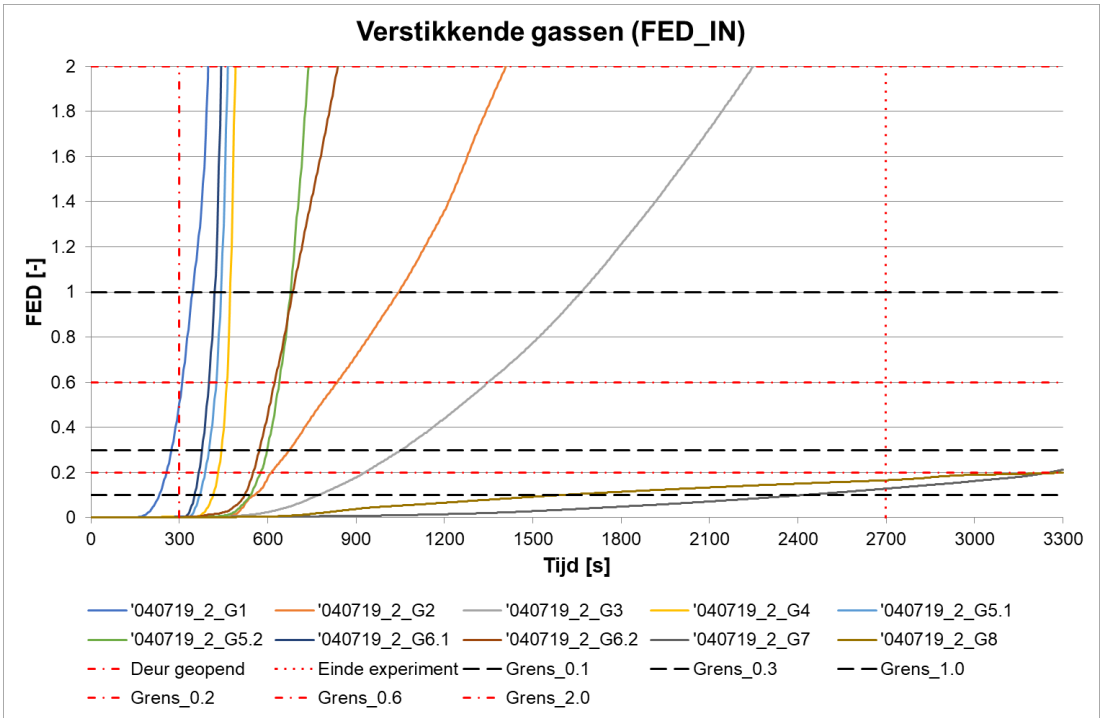
C. Deployment phase (20 - 55 minutes)

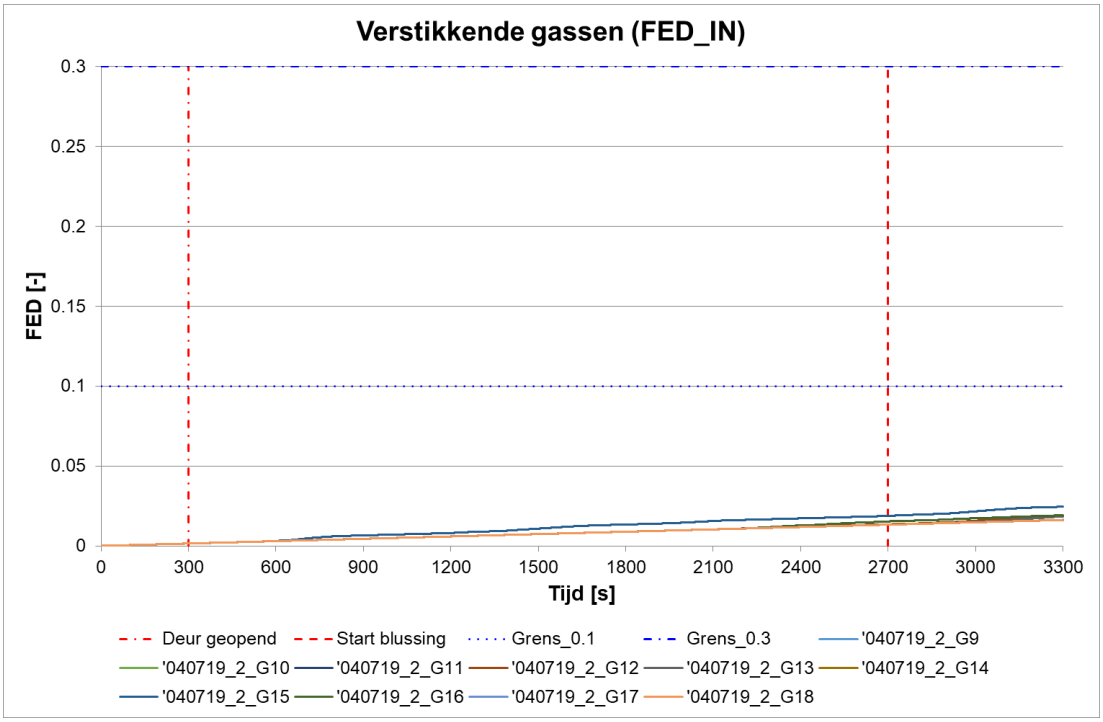
Irritant gases



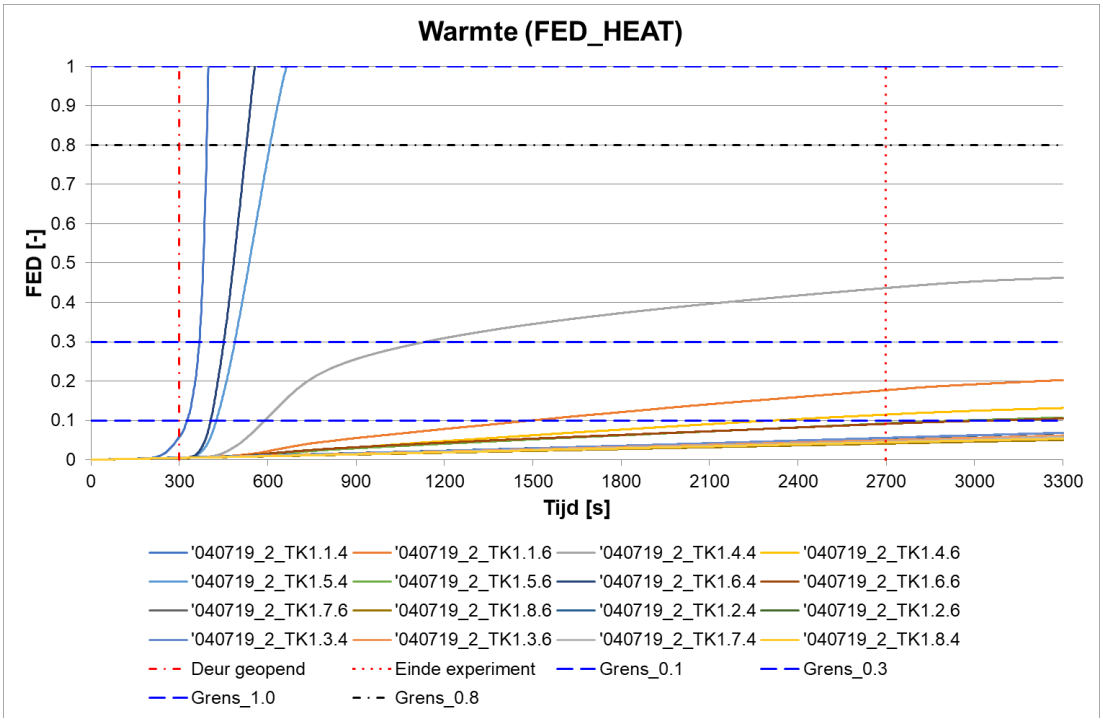


Asphyxiant gases

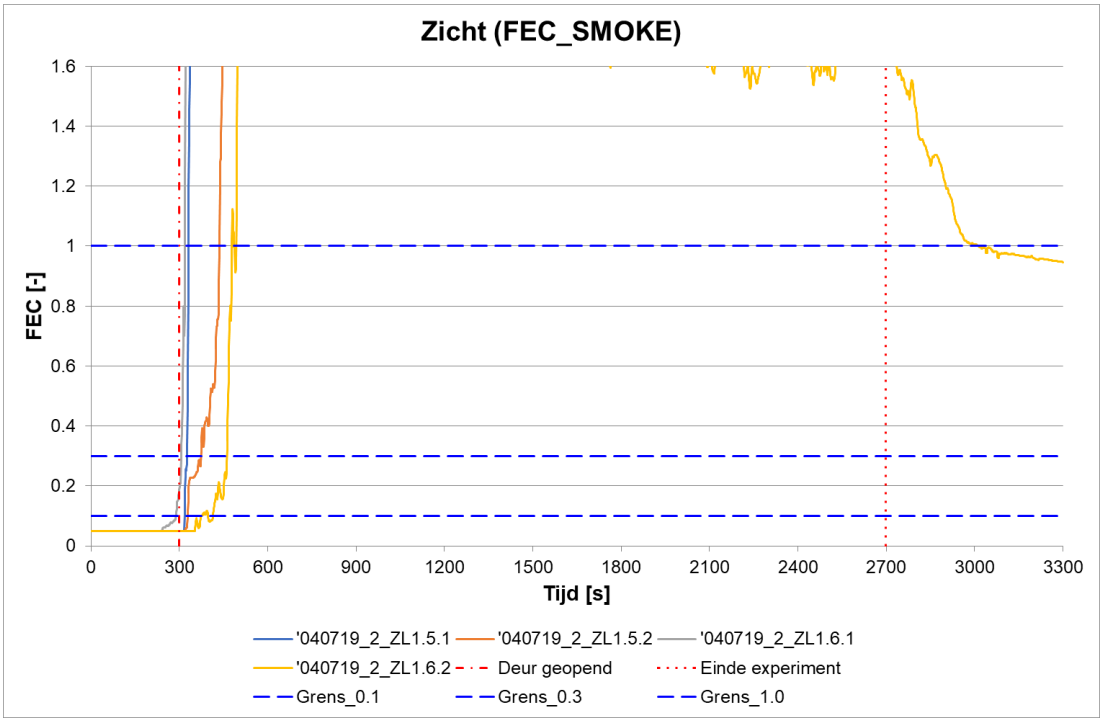




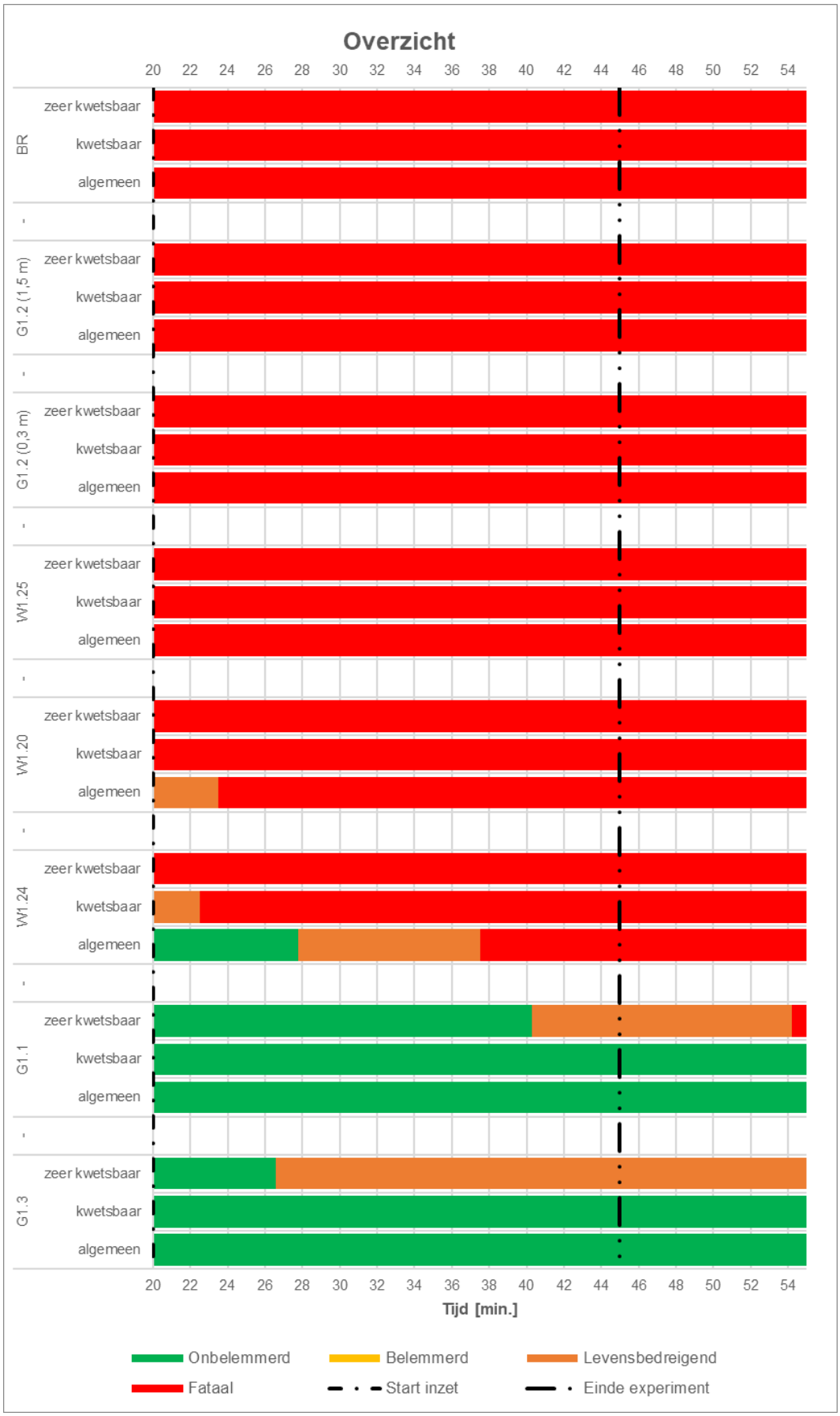
Heat



Visibility



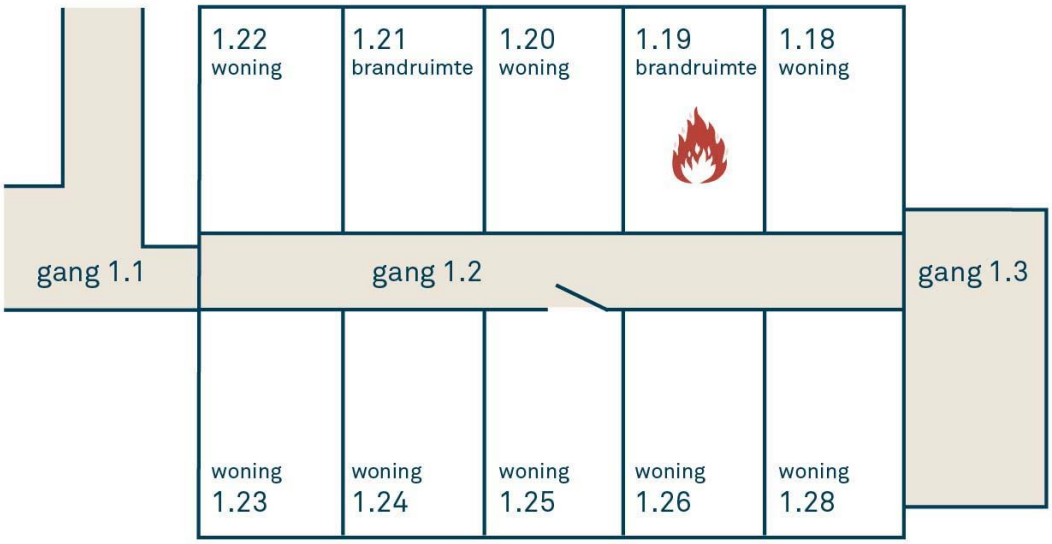
Overview


Overzicht
20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54
BR
G1.2 (1,5 m)
G1.2 (0,3 m)
W1.25
W1.20
W1.24
G1.1
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
-
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Start inzet
Einde experiment

Test 18 (variant 8: balcony door open and door open) 05/07/19

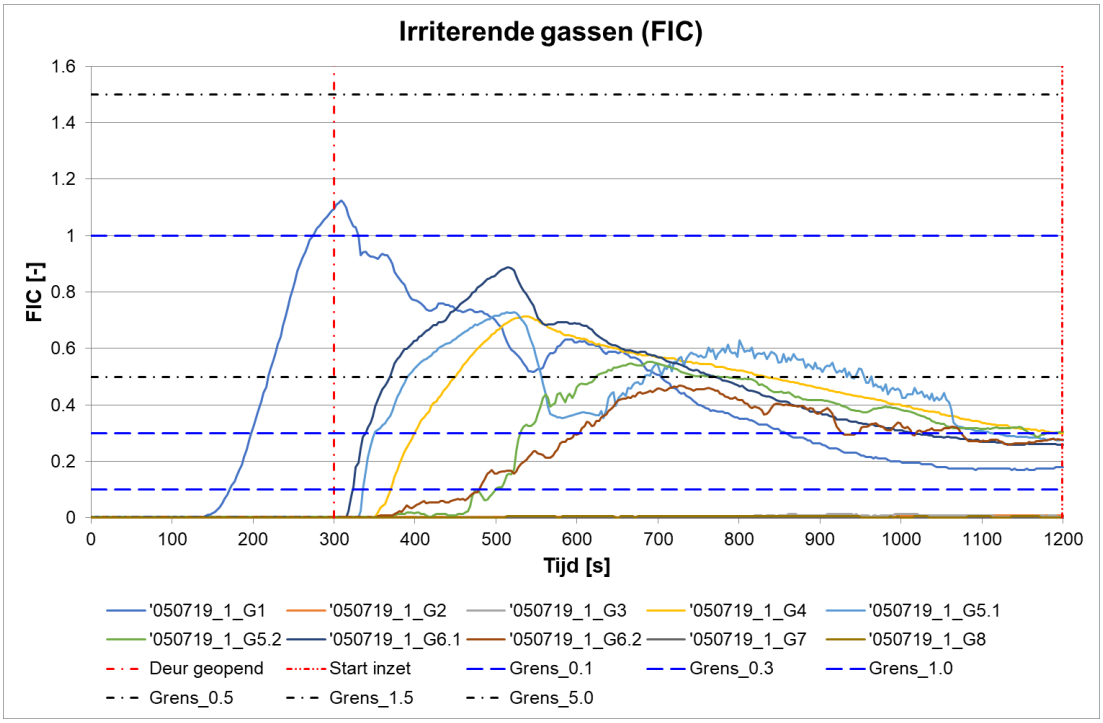
A. Description of the test

Test number	18
Date	05/07/2019
Morning / afternoon	Morning
Fire room	1.19
Door to the fire room open / closed	Open
Fire service deployment	Offensive interior attack
Extra measures	Balcony door open
Specific aspects	Camera A6 failed at t = 20.5 minutes. Frame of kitchen burned slightly during the deployment



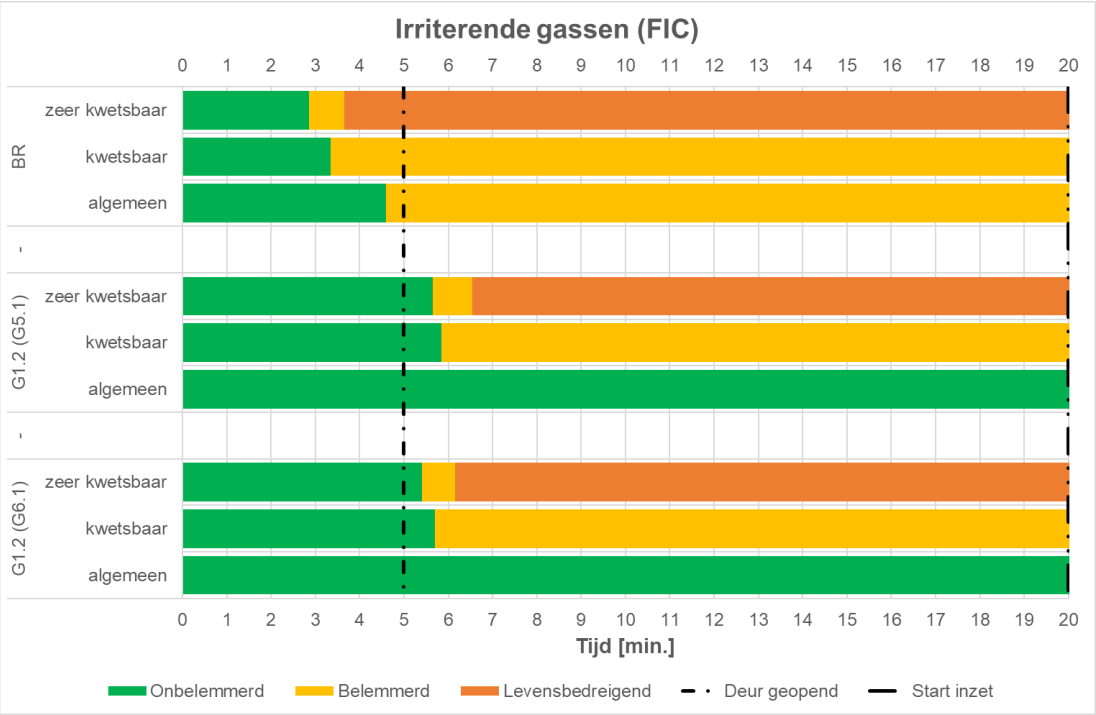
B. Escape phase (0 - 20 minutes)

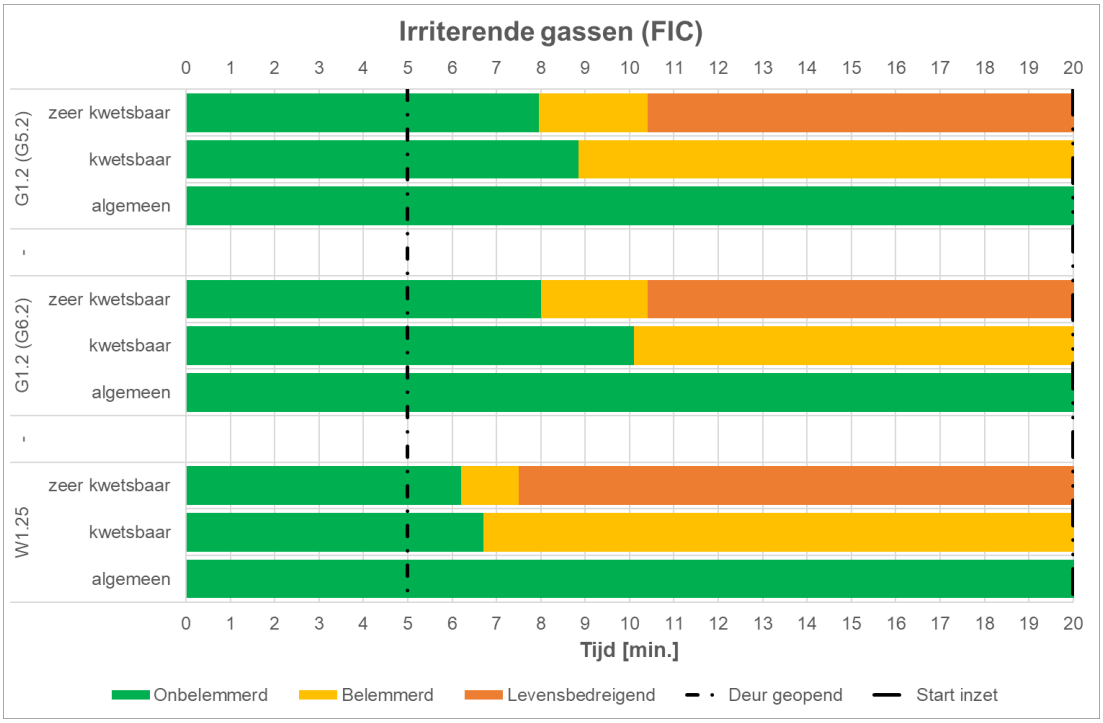
Irritant gases

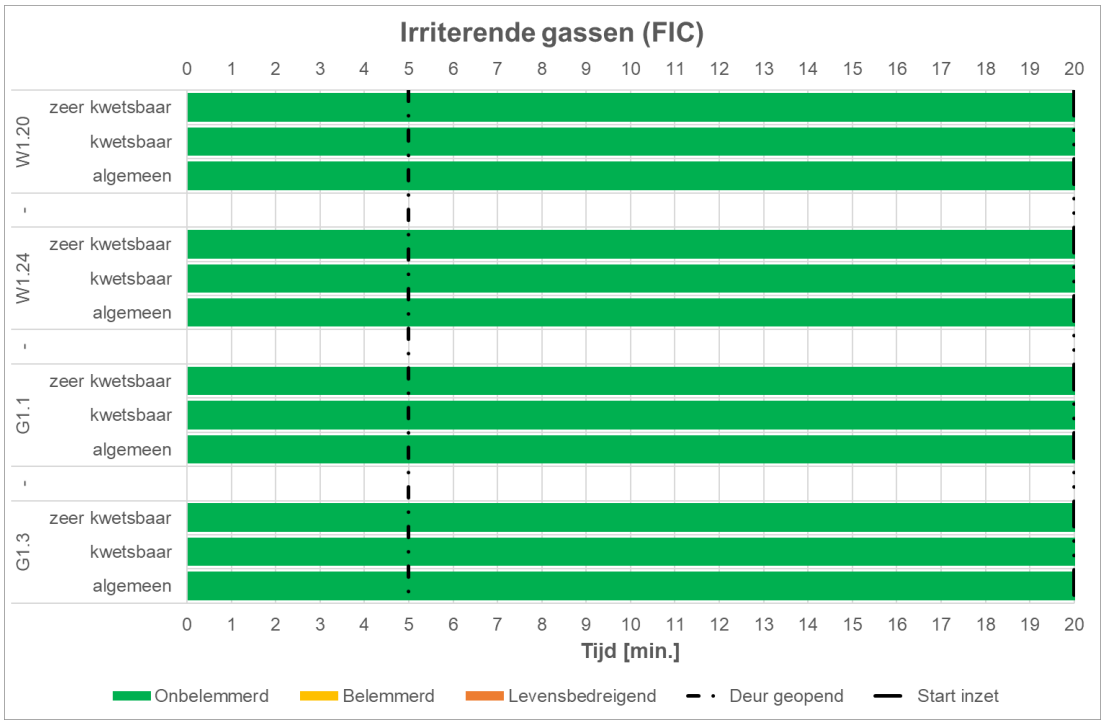


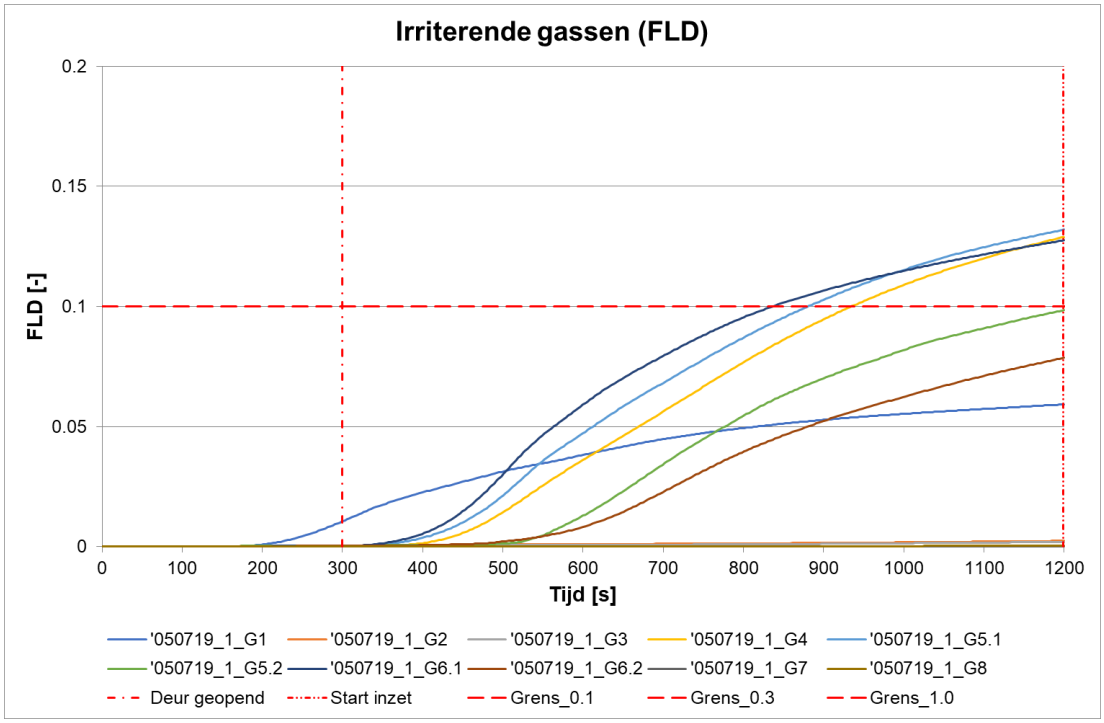
		Irritant gases (FIC)			
	Group	Threshold [-]	Safe [min.]	Impaired [min.]	Life-threatening [min.]
Fire room 1.19 G1	Highly vulnerable	0.1/0.5	2.9	3.7	> 3.7
	Vulnerable	0.3/1.5	3.4	> 55.0	-
	General	1.0/5.0	4.6	> 55.0	-
Residence 1.20 G2	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Residence 1.24 G3	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-

Residence 1.25 G4	Highly vulnerable	0.1/0.5	6.2	7.5	> 7.5
	Vulnerable	0.3/1.5	6.7	> 55.0	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.5	5.7	6.6	> 6.6
	Vulnerable	0.3/1.5	5.9	> 55.0	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.5	8.0	10.4	> 10.4
	Vulnerable	0.3/1.5	8.9	> 55.0	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.5	5.4	6.2	> 6.2
	Vulnerable	0.3/1.5	5.7	> 55.0	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.5	8.0	10.4	> 10.4
	Vulnerable	0.3/1.5	10.1	> 55.0	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-


Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G5.1)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.1)
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Start inzet

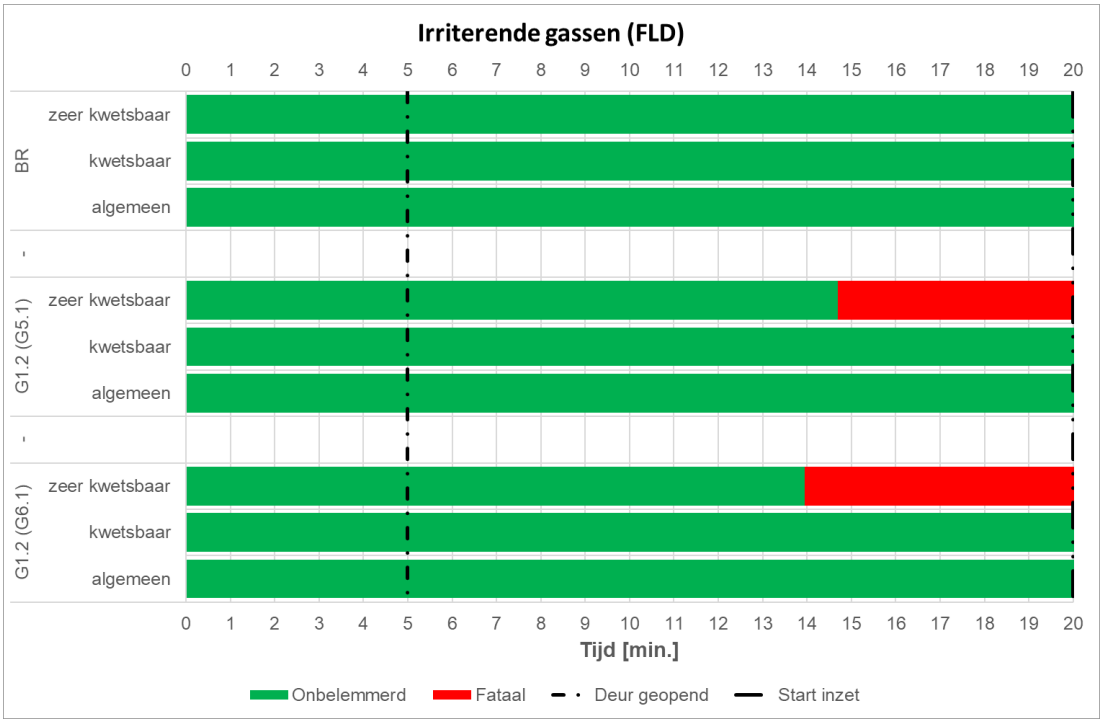

Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Start inzet


Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Start inzet

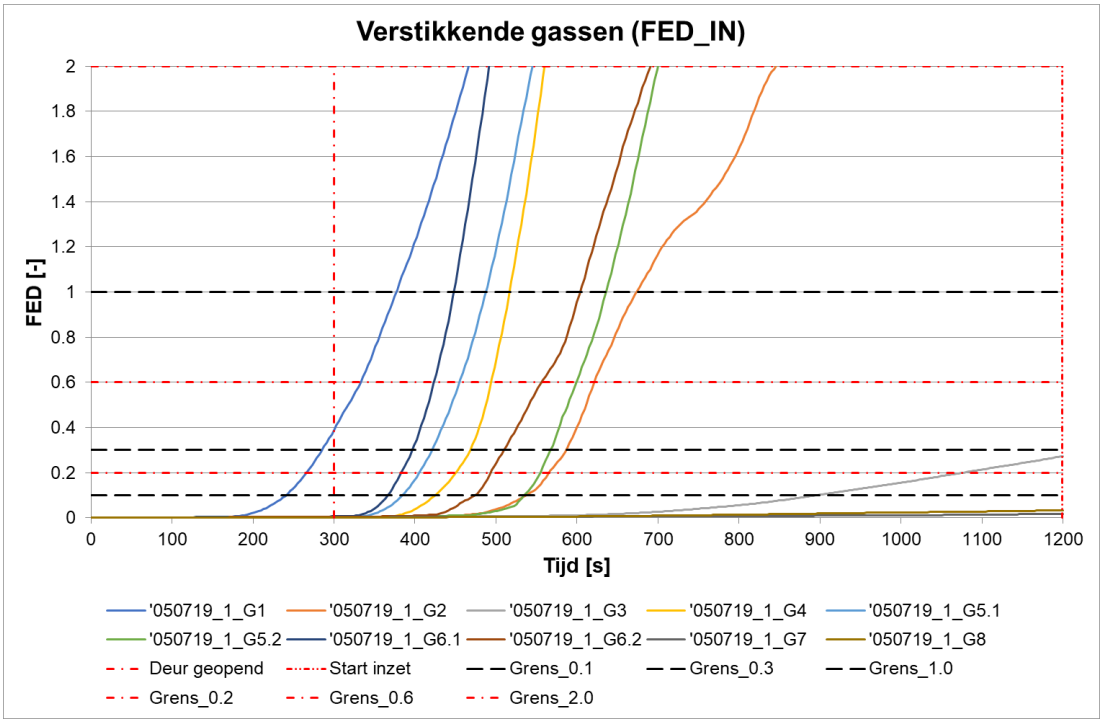

Irriterende gassen (FLD)
FLD [-]
0.2
0.15
0.1
0.05
0
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
Tijd [s]
'050719_1_G1
'050719_1_G2
'050719_1_G3
'050719_1_G4
'050719_1_G5.1
'050719_1_G5.2
'050719_1_G6.1
'050719_1_G6.2
'050719_1_G7
'050719_1_G8
Deur geopend
Start inzet
Grens_0.1
Grens_0.3
Grens_1.0

	Irritant gases (FLD)			
	Group	Threshold [-]	Safe [min.]	Impaired [min.]
Fire room 1.19 G1	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.20 G2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.24 G3	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.25 G4	Highly vulnerable	0.1	> 15.6	> 15.6
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G5.1	Highly vulnerable	0.1	14.7	> 14.7
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G5.2	Highly vulnerable	0.1	20.4	> 20.4
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G6.1	Highly vulnerable	0.1	14.0	> 14.0
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G6.2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-

	General	1.0	> 55.0	-
Corridor 1.1 G7	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.3 G8	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-

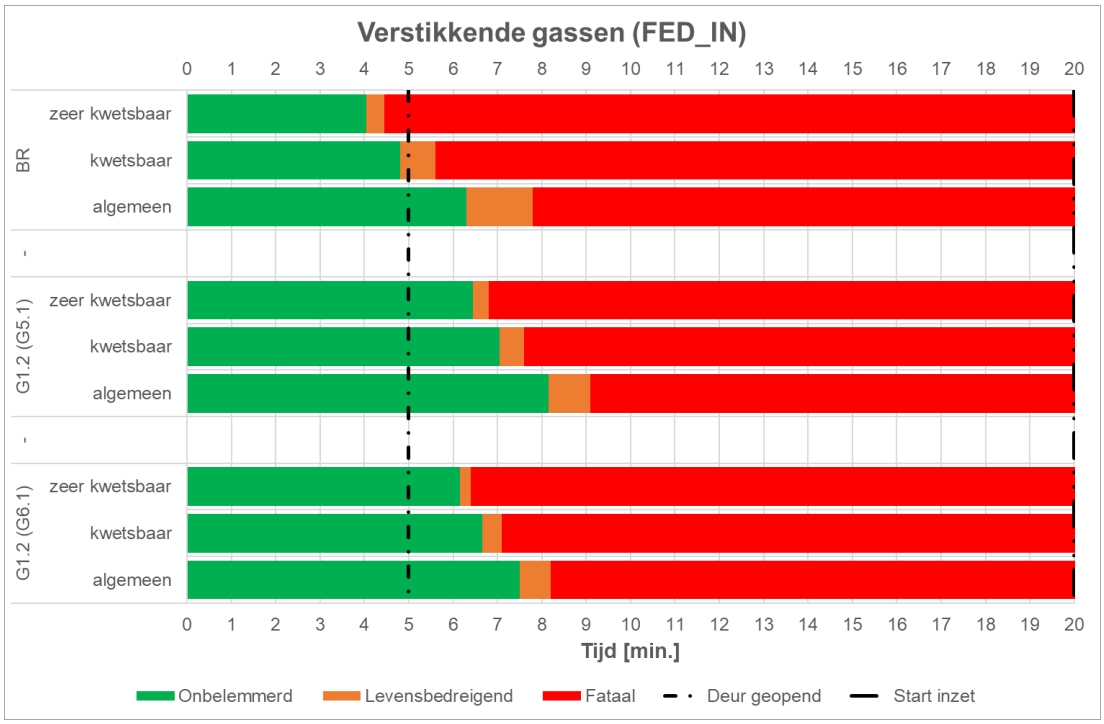


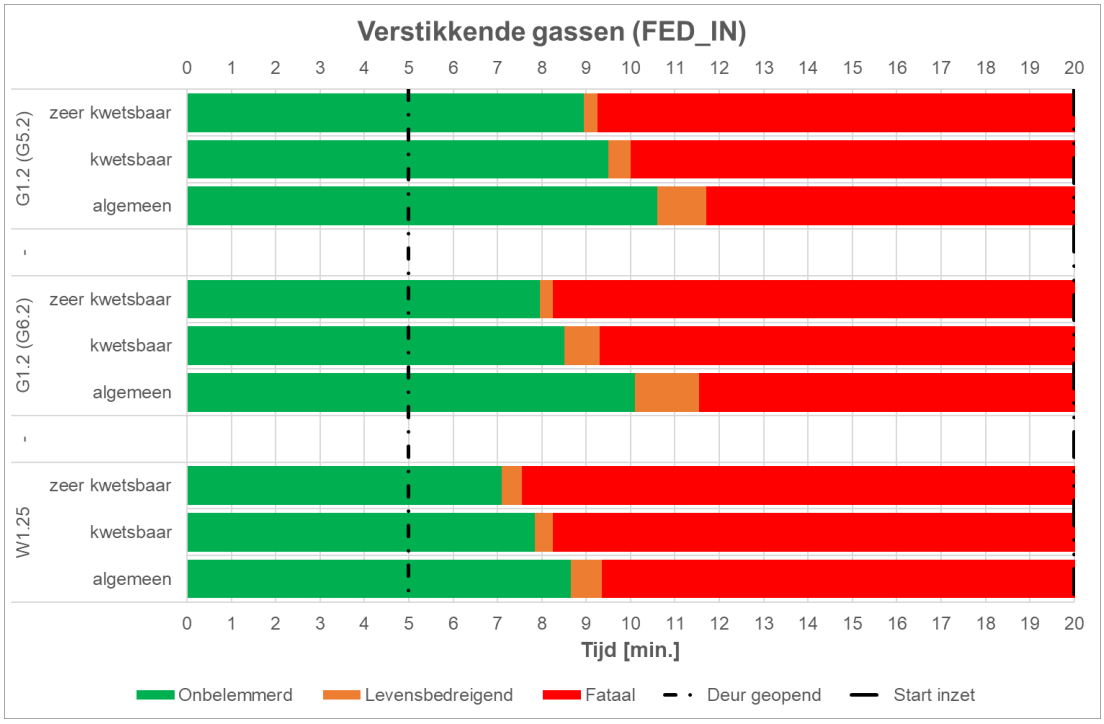
Asphyxiant gases

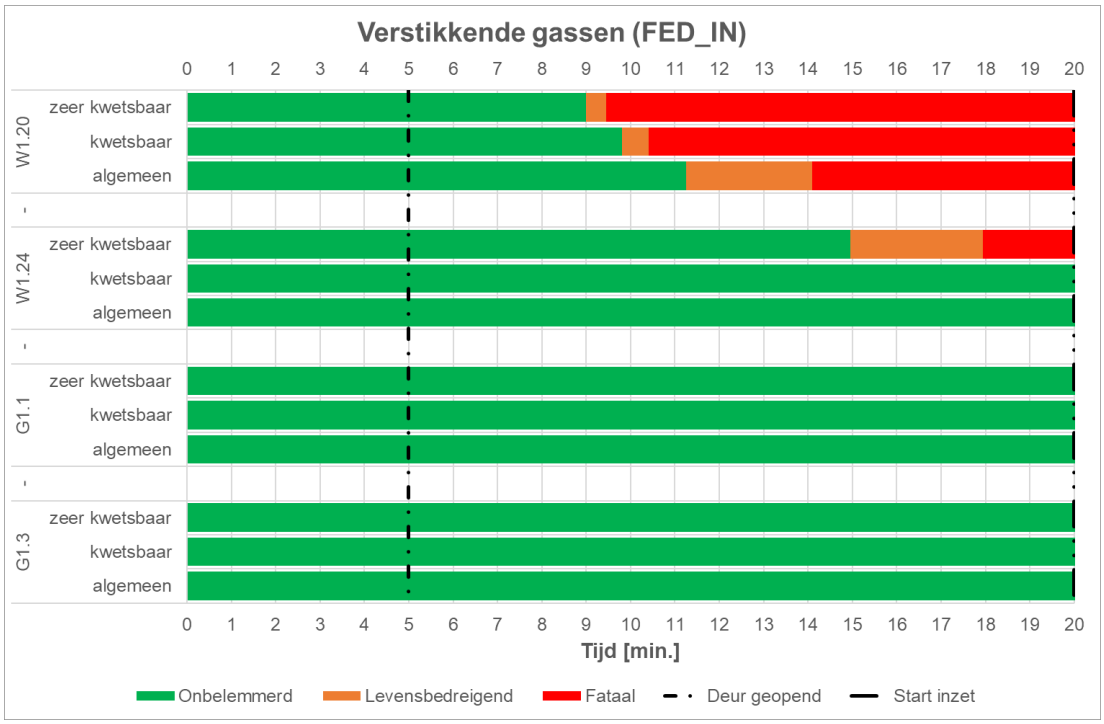


		Asphyxiant gases (FED_IN)			
	Group	Threshold [-]	Safe [min.]	Life-threatening [min.]	Fatal [min.]
Fire room 1.19 G1	Highly vulnerable	0.1/0.2	4.1	4.5	> 4.5
	Vulnerable	0.3/0.6	4.8	5.6	> 5.6
	General	1.0/2.0	6.3	7.8	> 7.8
Residence 1.20 G2	Highly vulnerable	0.1/0.2	9.0	9.5	> 9.5
	Vulnerable	0.3/0.6	9.8	10.4	> 10.4
	General	1.0/2.0	11.3	14.1	> 14.1
Residence 1.24 G3	Highly vulnerable	0.1/0.2	15.0	18.0	> 18.0
	Vulnerable	0.3/0.6	20.7	26.6	> 26.6
	General	1.0/2.0	31.8	> 55.0	-
Residence 1.25	Highly vulnerable	0.1/0.2	7.1	7.6	> 7.6

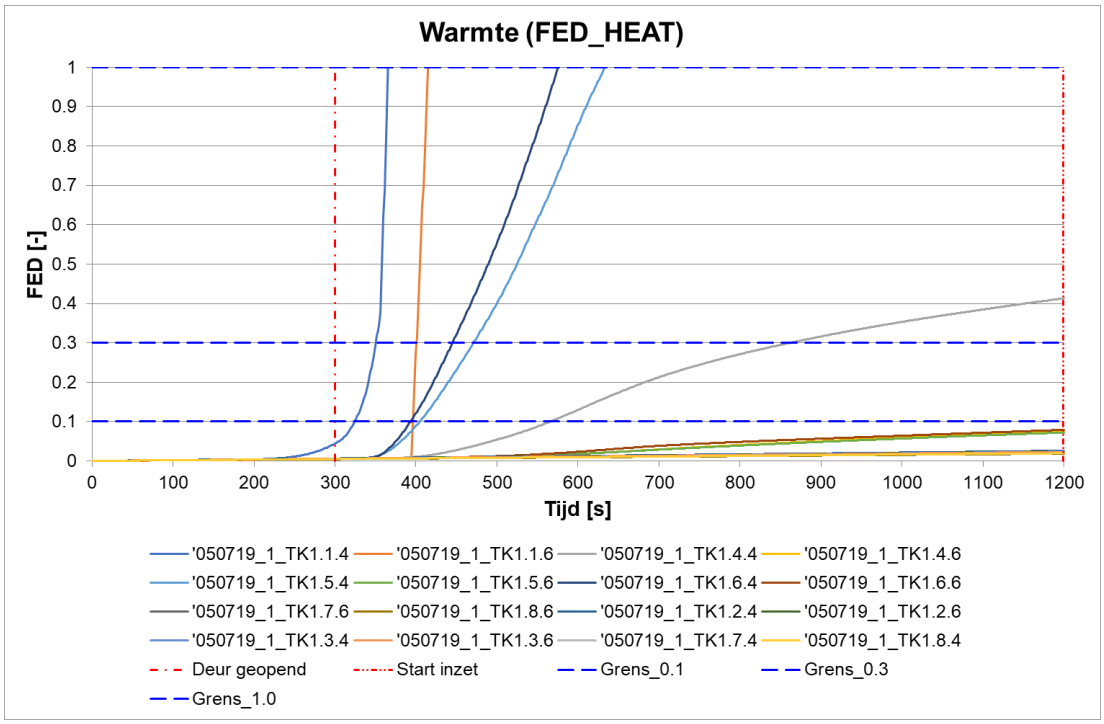
G4	Vulnerable	0.3/0.6	7.9	8.3	> 8.3
	General	1.0/2.0	8.7	9.4	> 9.4
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.2	6.5	6.8	> 6.8
	Vulnerable	0.3/0.6	7.1	7.6	> 7.6
	General	1.0/2.0	8.2	9.1	> 9.1
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.2	9.0	9.3	> 9.3
	Vulnerable	0.3/0.6	9.5	10.0	> 10.0
	General	1.0/2.0	10.6	11.7	> 11.7
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.2	6.2	6.4	> 6.4
	Vulnerable	0.3/0.6	6.7	7.1	> 7.1
	General	1.0/2.0	7.5	8.2	> 8.2
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.2	8.0	8.3	> 8.3
	Vulnerable	0.3/0.6	8.5	9.3	> 9.3
	General	1.0/2.0	10.1	11.6	> 11.6
Corridor 1.1 G7	Highly vulnerable	0.1/0.2	36.7	> 55.0	-
	Vulnerable	0.3/0.6	> 55.0	-	-
	General	1.0/2.0	> 55.0	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.2	23.0	25.2	> 25.2
	Vulnerable	0.3/0.6	29.4	49.1	> 49.1
	General	1.0/2.0	> 55.0	-	-


Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G5.1)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.1)
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet


Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet

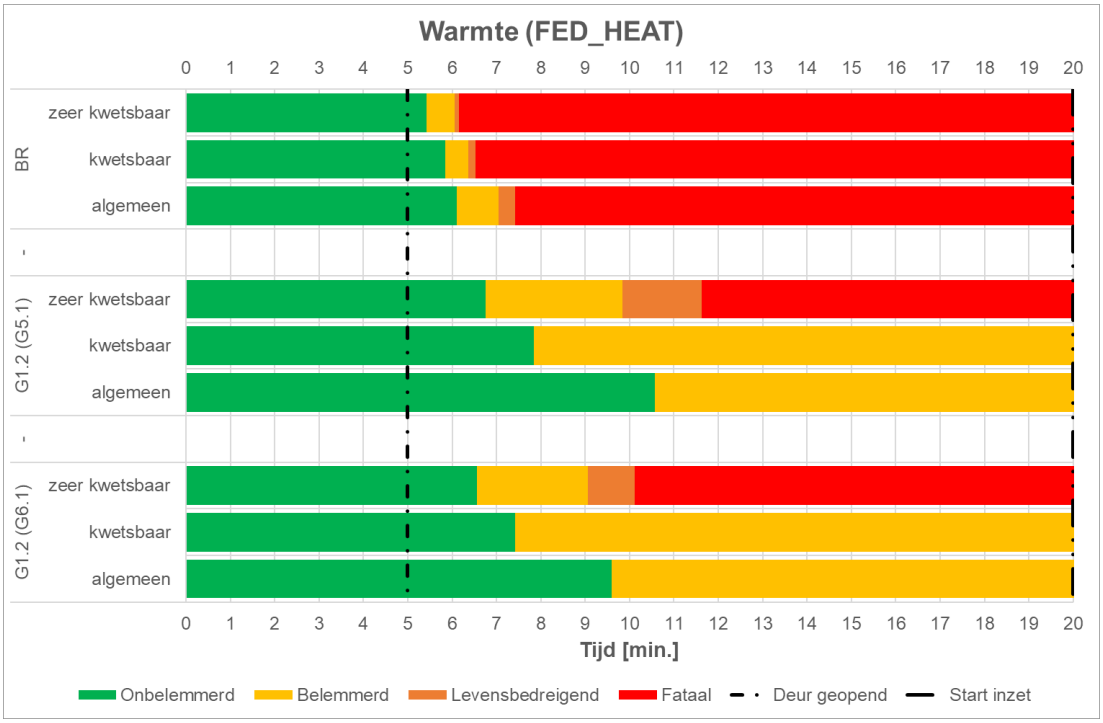

Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet

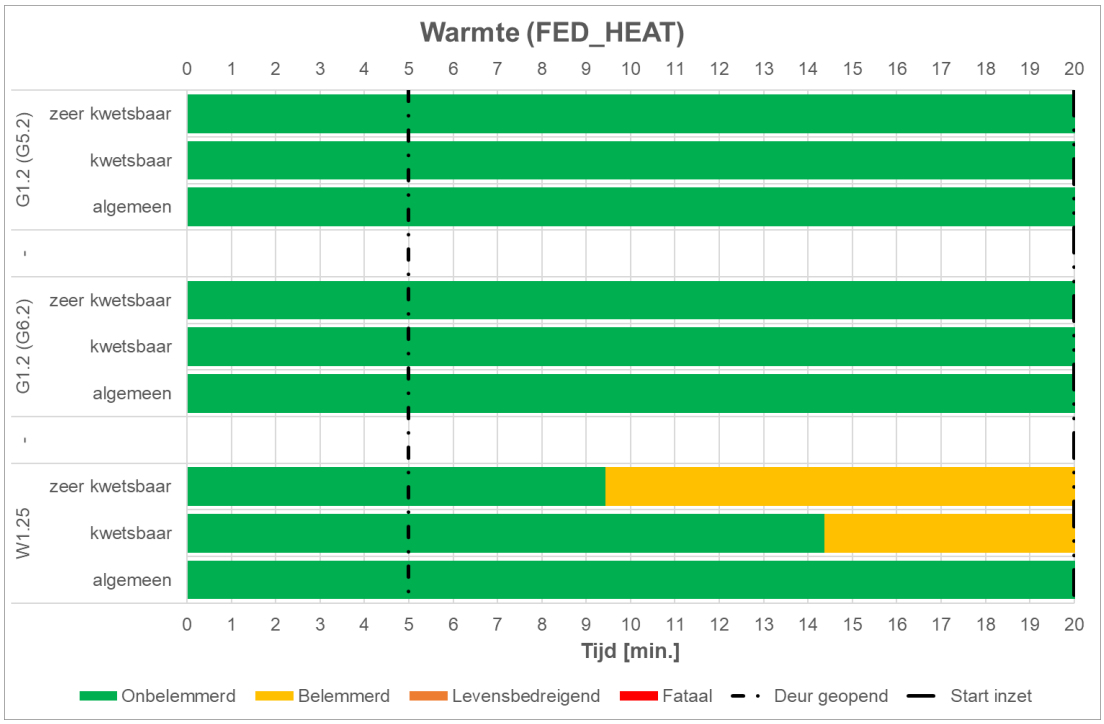
Heat

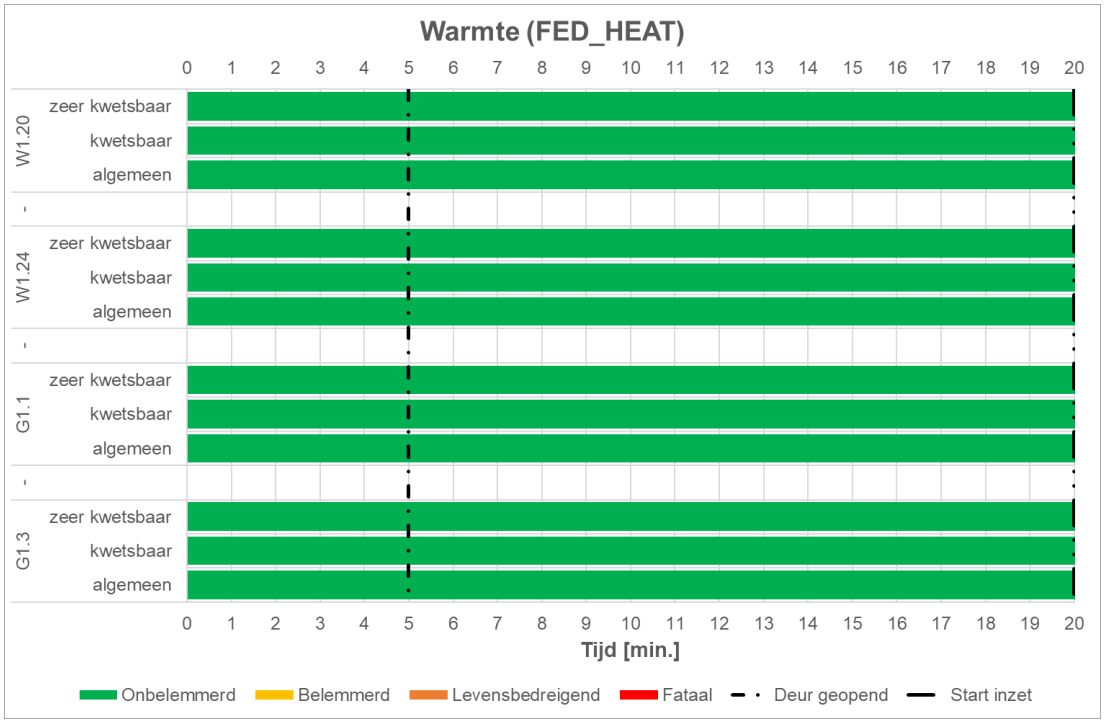

Warmte (FED_HEAT)
FED [-]
0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
Tijd [s]
'050719_1_TK1.1.4
'050719_1_TK1.1.6
'050719_1_TK1.4.4
'050719_1_TK1.4.6
'050719_1_TK1.5.4
'050719_1_TK1.5.6
'050719_1_TK1.6.4
'050719_1_TK1.6.6
'050719_1_TK1.7.6
'050719_1_TK1.8.6
'050719_1_TK1.2.4
'050719_1_TK1.2.6
'050719_1_TK1.3.4
'050719_1_TK1.3.6
'050719_1_TK1.7.4
'050719_1_TK1.8.4
Deur geopend
Start inzet
Grens_0.1
Grens_0.3
Grens_1.0

		Heat (FED_HEAT)				
	Group	Threshold [-]	Safe [min.]	Impaired [min.]	Life-threatening [min.]	Fatal [min.
Fire room 1.19 G1	Highly vulnerable	0.1/0.8/1.2	5.4	6.1	6.2	> 6.2
	Vulnerable	0.3/2.4/12.0	5.9	6.4	6.5	> 6.5
	General	1.0/8.0/12.0	6.1	7.1	7.4	> 7.4
Residence 1.20 G2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Residence 1.24 G3	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Residence 1.25 G4	Highly vulnerable	0.1/0.8/1.2	9.4	> 55.0	-	-
	Vulnerable	0.3/2.4/12.0	14.4	> 55.0	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.8/1.2	6.8	9.8	11.6	> 11.6
	Vulnerable	0.3/2.4/12.0	7.9	> 55.0	-	-
	General	1.0/8.0/12.0	10.6	> 55.0	-	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.8/1.2	31.6	> 55.0	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.8/1.2	6.6	9.1	10.1	> 10.1

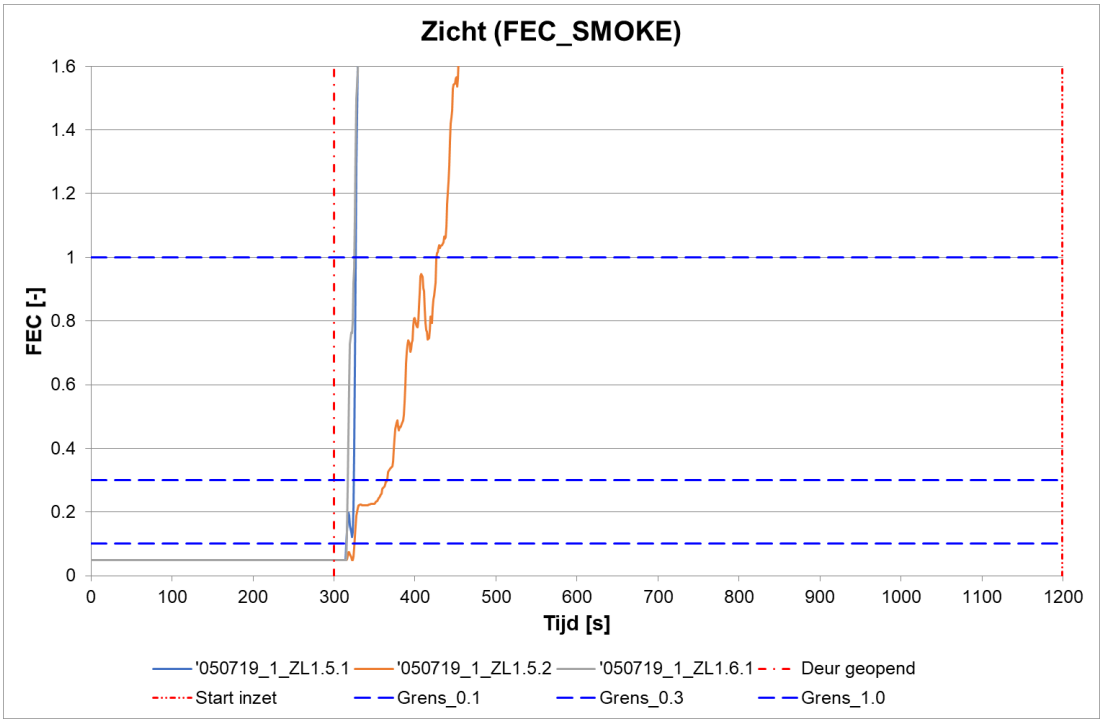
	Vulnerable	0.3/2.4/12.0	7.4	20.8	> 55.0	-
	General	1.0/8.0/12.0	9.6	> 55.0	-	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.8/1.2	30.5	> 55.0	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-




Warmte (FED_HEAT)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet

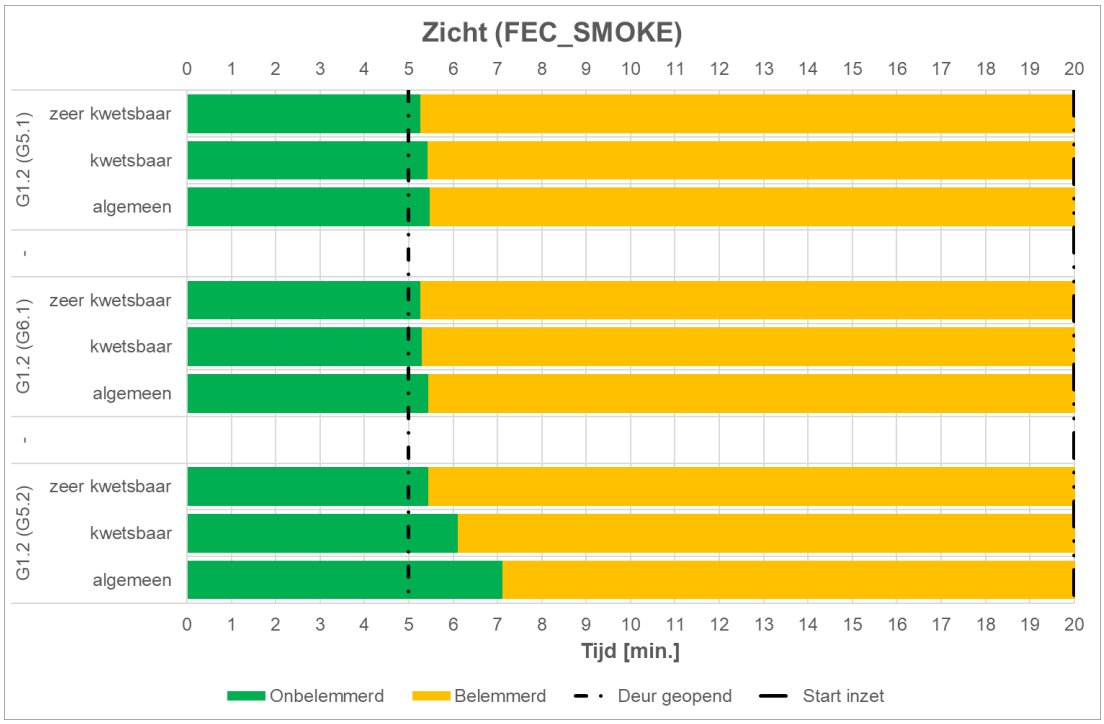

Warmte (FED_HEAT)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet

Visibility

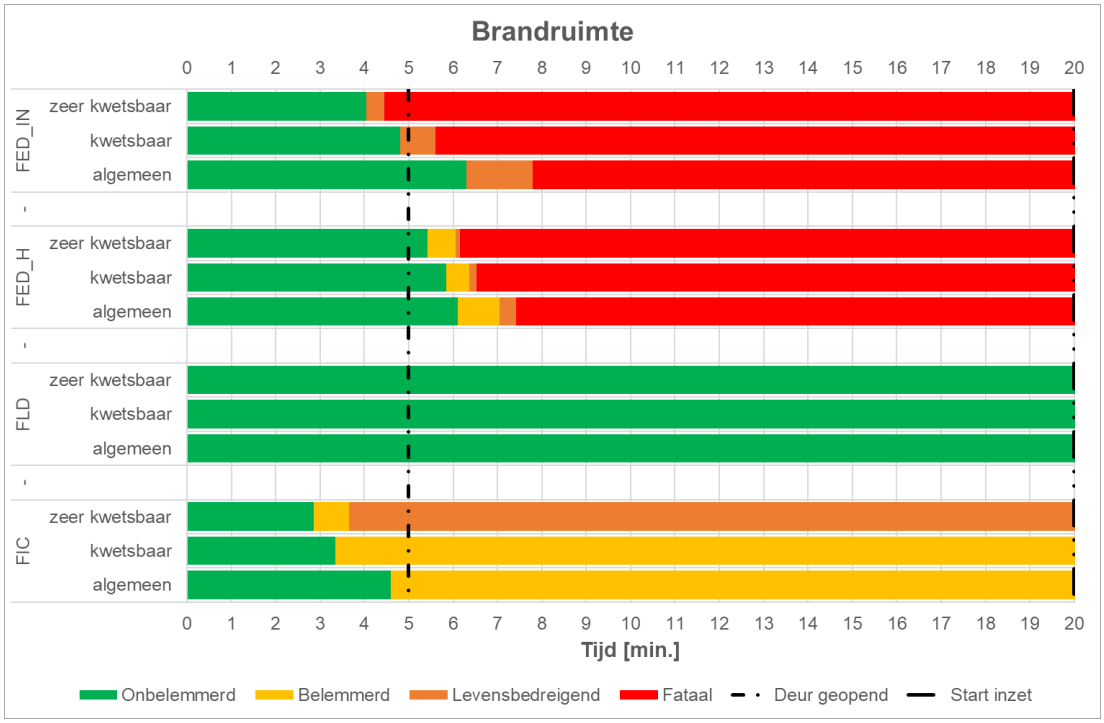


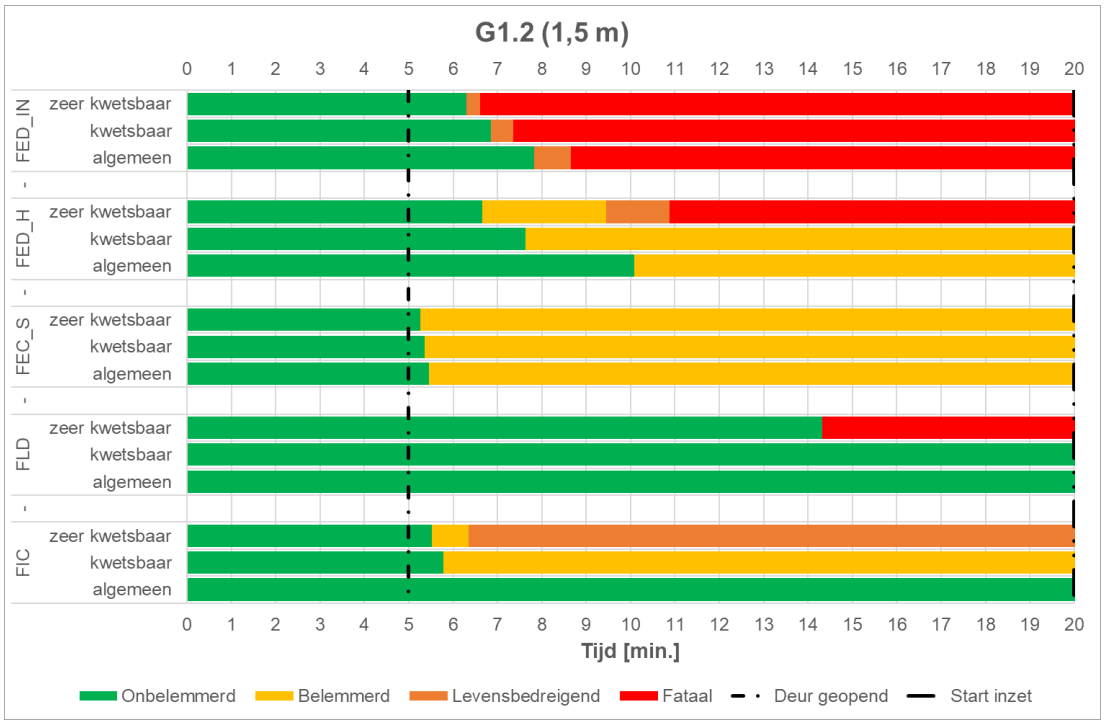
		Visibility (FEC_SMOKE)		
	Group	Threshold [-]	Safe [min.]	Impaired [min.]
Corridor 1.2 G5.1	Highly vulnerable	0.1	5.3	> 5.3
	Vulnerable	0.3	5.4	> 5.4
	General	1.0	5.5	> 5.5
Corridor 1.2 G5.2	Highly vulnerable	0.1	5.4	> 5.4
	Vulnerable	0.3	6.1	> 6.1
	General	1.0	7.1	> 7.1
Corridor 1.2 G6.1	Highly vulnerable	0.1	5.3	> 5.3
	Vulnerable	0.3	5.3	> 5.3
	General	1.0	5.4	> 5.4
Corridor 1.2	Highly vulnerable	0.1	5.4	> 5.4

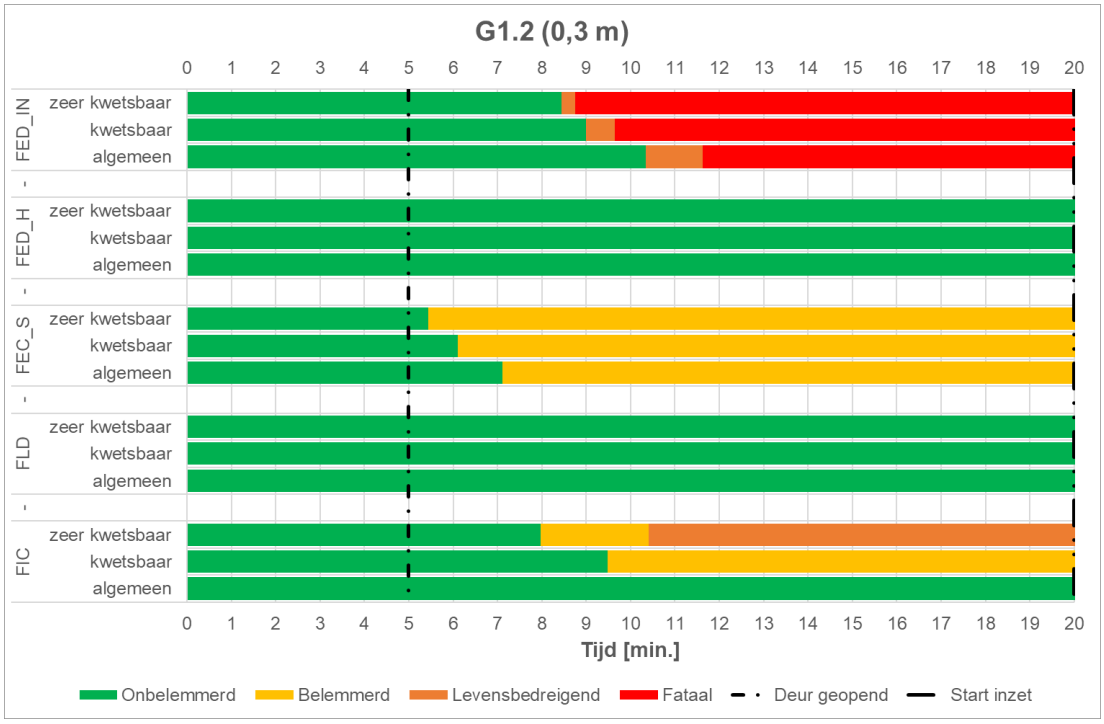
G6.2	Vulnerable	0.3	6.1	> 6.1
	General	1.0	7.1	> 7.1



Overview

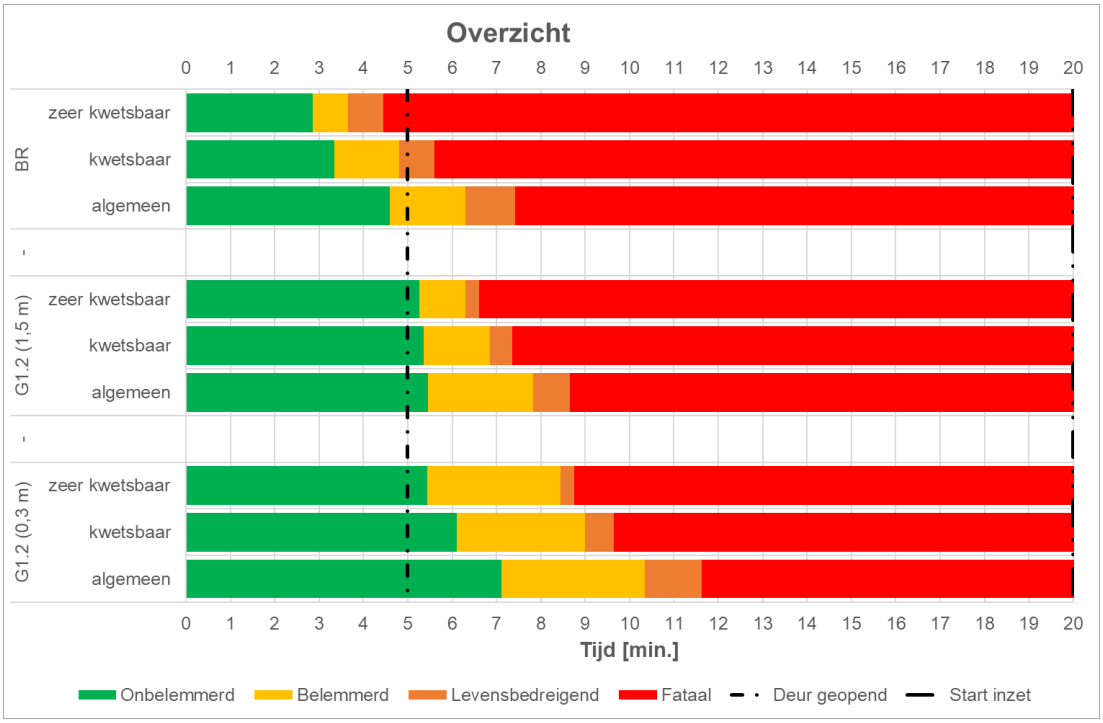


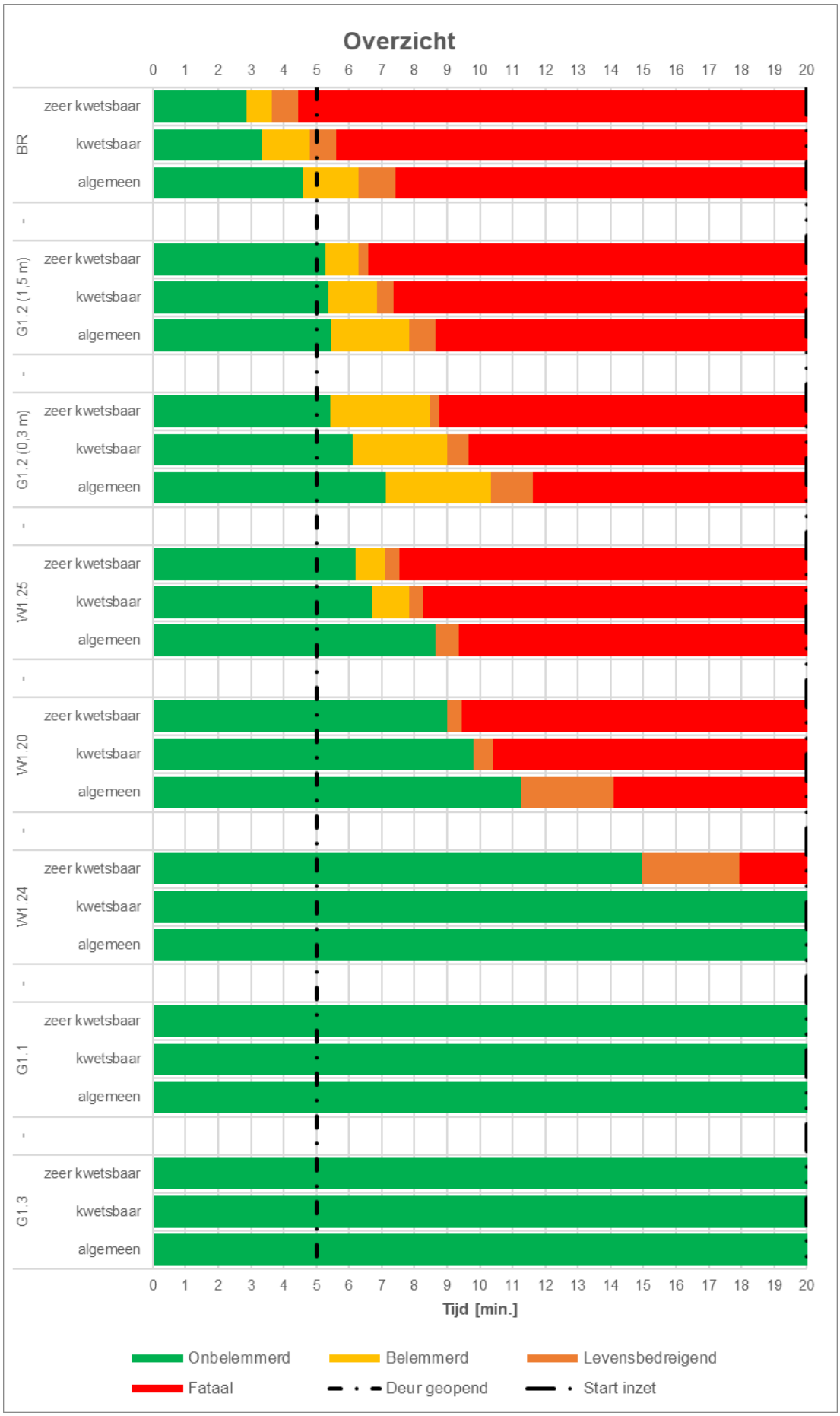

G1.2 (1,5 m)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
FED_IN
FED_H
FEC_S
FLD
FIC
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet


G1.2 (0,3 m)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
FED_IN
FED_H
FEC_S
FLD
FIC
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet

	Overview	Escape	Survivability		
	Group	Safe [min.]	Impaired [min.]	Life-threatening [min.]	Fatal [min.]
Fire room 1.19 G1	Highly vulnerable	2.9	3.7	4.5	> 4.5
	Vulnerable	3.4	4.8	5.6	> 5.6
	General	4.6	6.3	7.4	> 7.4
Residence 1.20 G2	Highly vulnerable	9.0	9.0	9.5	> 9.5
	Vulnerable	9.8	9.8	10.4	> 10.4
	General	11.3	11.3	14.1	> 14.1
Residence 1.24 G3	Highly vulnerable	15.0	15.0	18.0	> 18.0
	Vulnerable	20.7	20.7	26.6	> 26.6
	General	31.8	31.8	> 55.0	-
Residence 1.25 G4	Highly vulnerable	6.2	7.1	7.6	> 7.6
	Vulnerable	6.7	7.9	8.3	> 8.3
	General	8.7	8.7	9.4	> 9.4
Corridor 1.2 G5.1	Highly vulnerable	5.3	6.5	6.8	> 6.8
	Vulnerable	5.4	7.1	7.6	> 7.6
	General	5.5	8.2	9.1	> 9.1
Corridor 1.2 G5.2	Highly vulnerable	5.4	9.0	9.3	> 9.3
	Vulnerable	6.1	9.5	10.0	> 10.0
	General	7.1	10.6	11.7	> 11.7
Corridor 1.2 G6.1	Highly vulnerable	5.3	6.2	6.4	> 6.4
	Vulnerable	5.3	6.7	7.1	> 7.1
	General	5.4	7.5	8.2	> 8.2
Corridor 1.2	Highly vulnerable	5.4	8.0	8.3	> 8.3

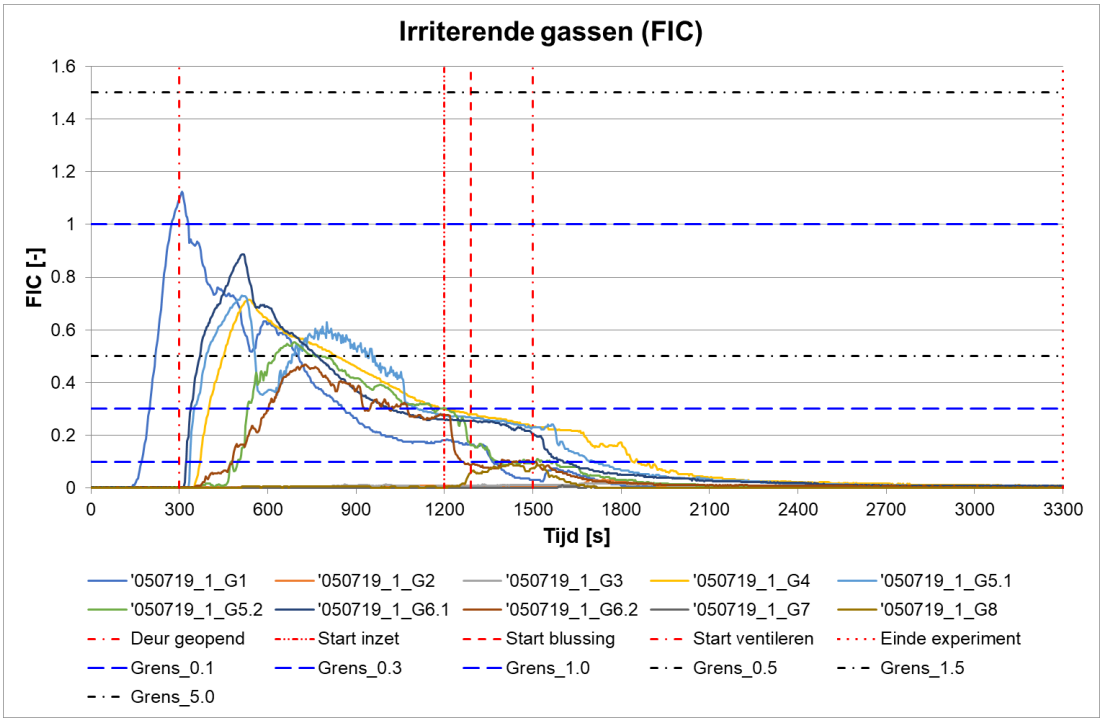
G6.2	Vulnerable	6.1	8.5	9.3	> 9.3
	General	7.1	10.1	11.6	> 11.6
Corridor 1.1 G7	Highly vulnerable	36.7	36.7	> 55.0	-
	Vulnerable	> 55.0	-	-	-
	General	> 55.0	-	-	-
Corridor 1.3 G8	Highly vulnerable	23.0	23.0	25.2	25.2
	Vulnerable	29.4	29.4	49.1	49.1
	General	55.0	55.0	55.0	55.0

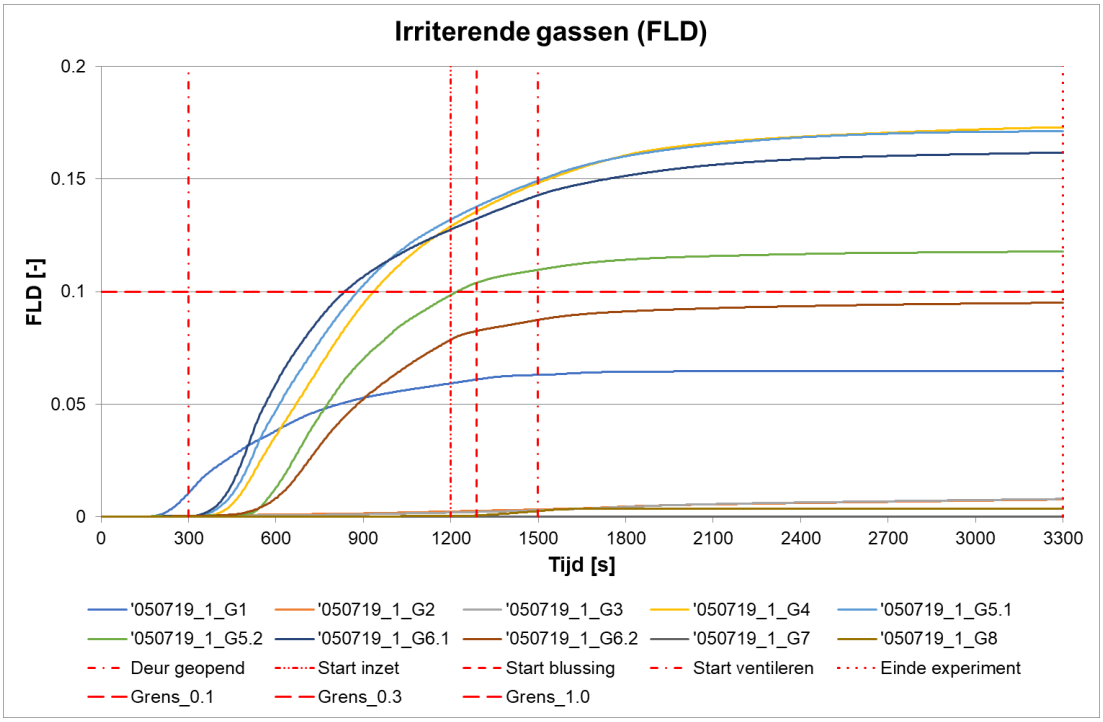



Overzicht
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (1,5 m)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (0,3 m)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet

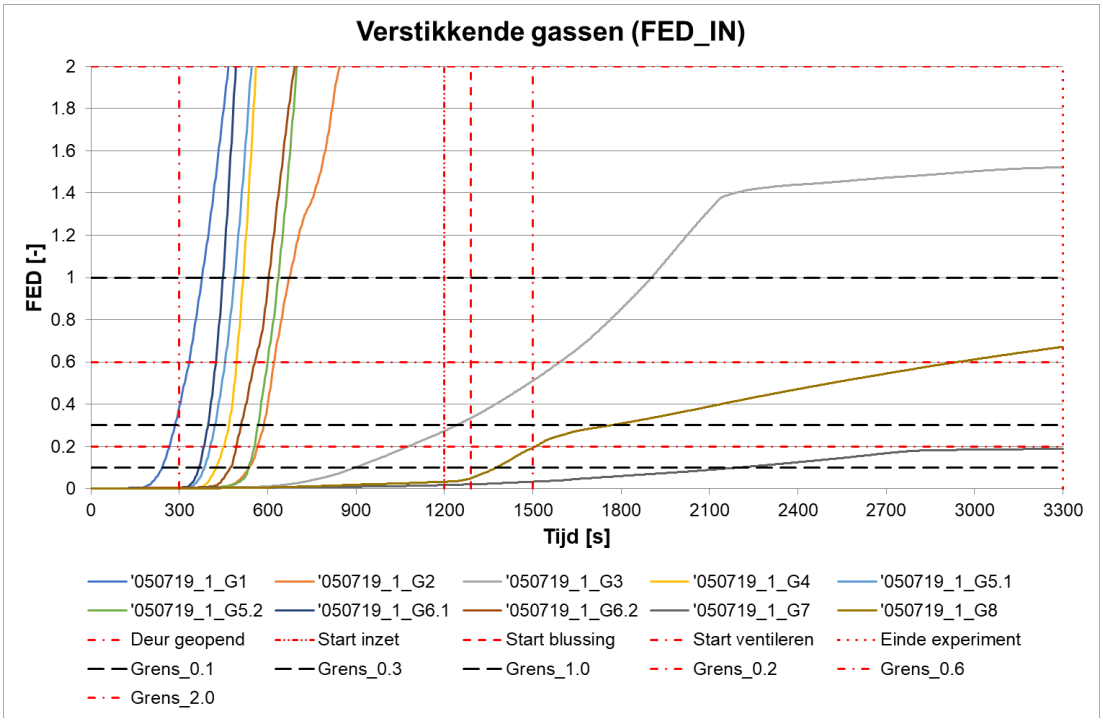
C. Deployment phase (20 - 55 minutes)

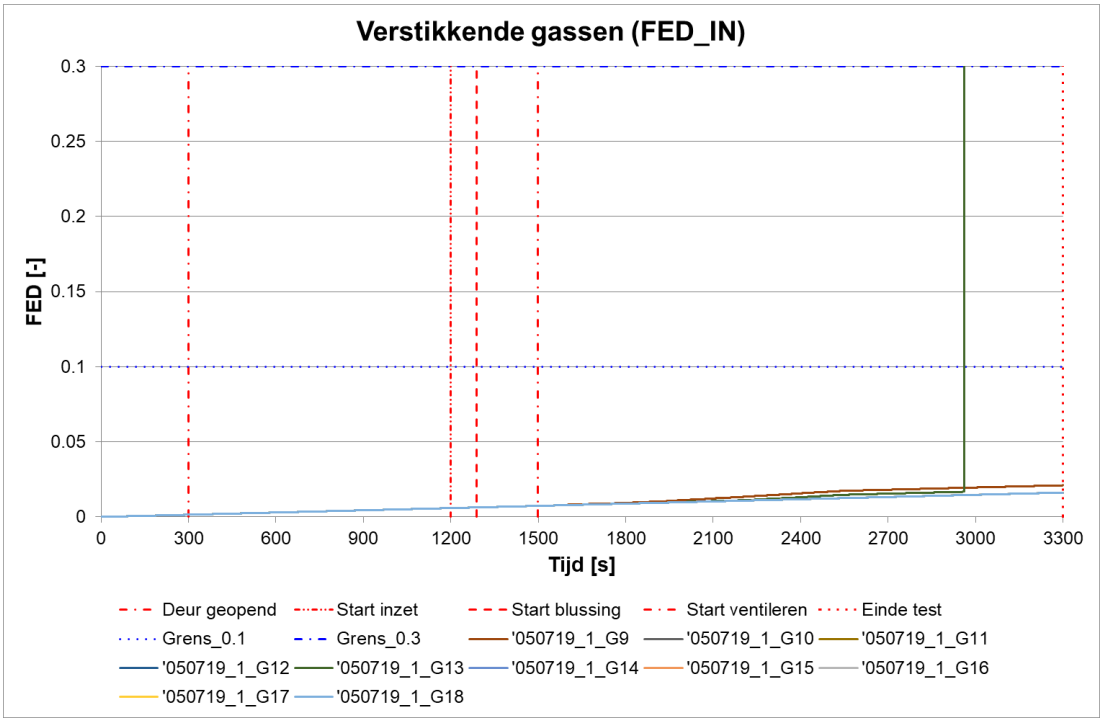
Irritant gases



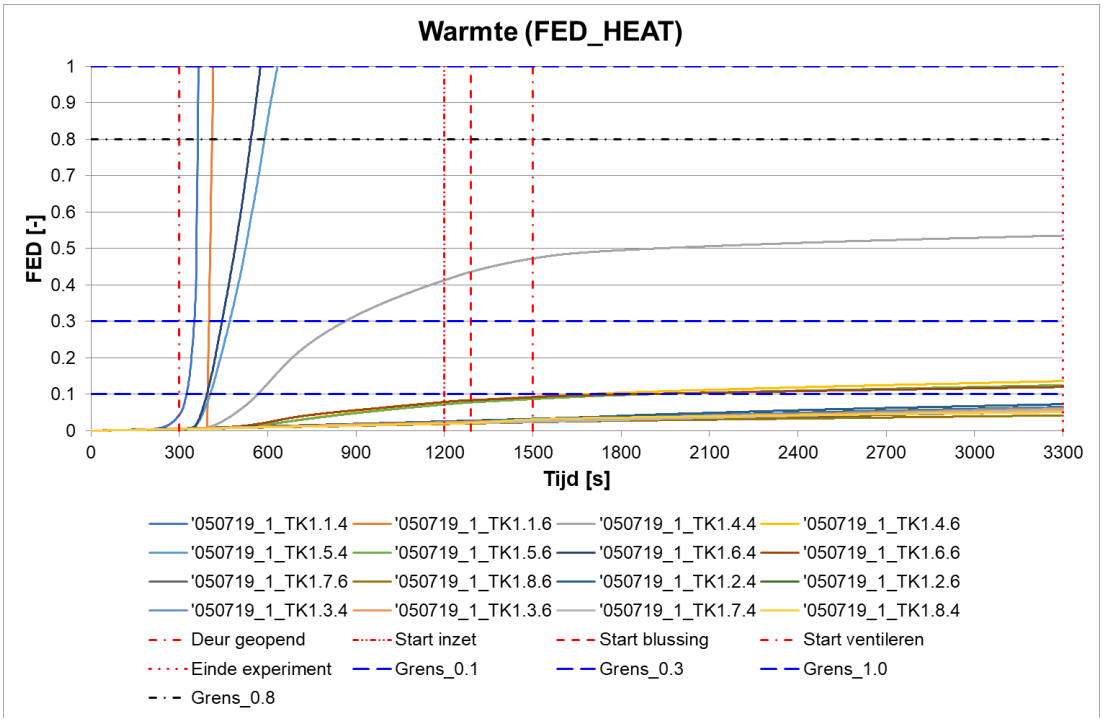


Asphyxiant gases

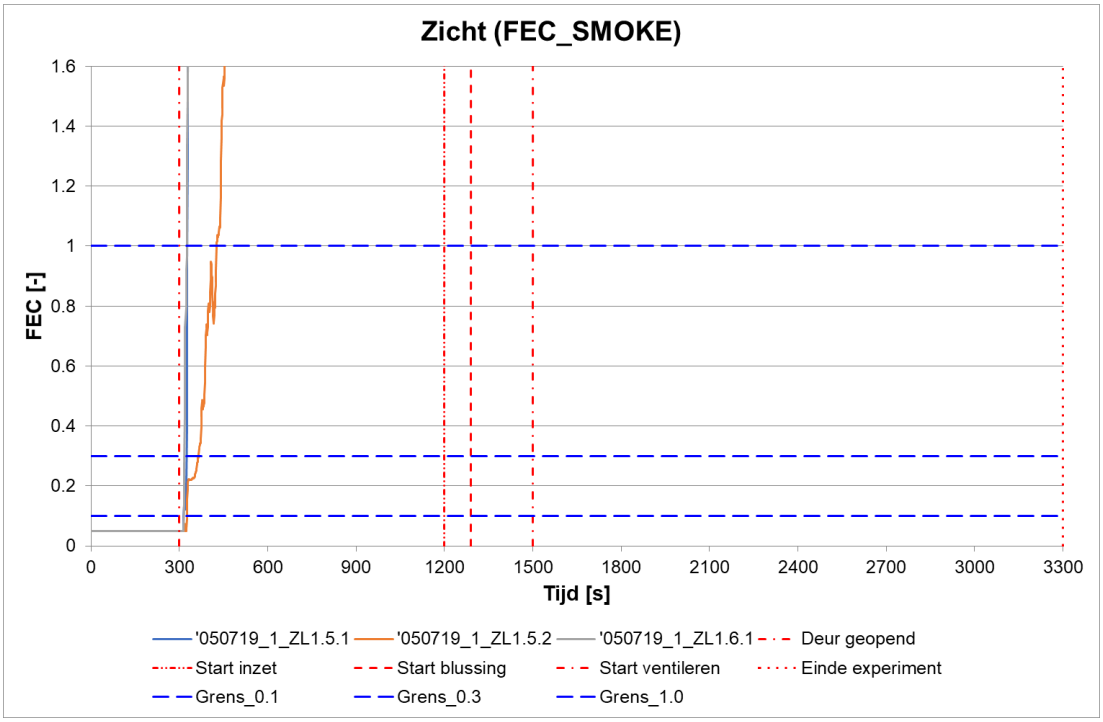




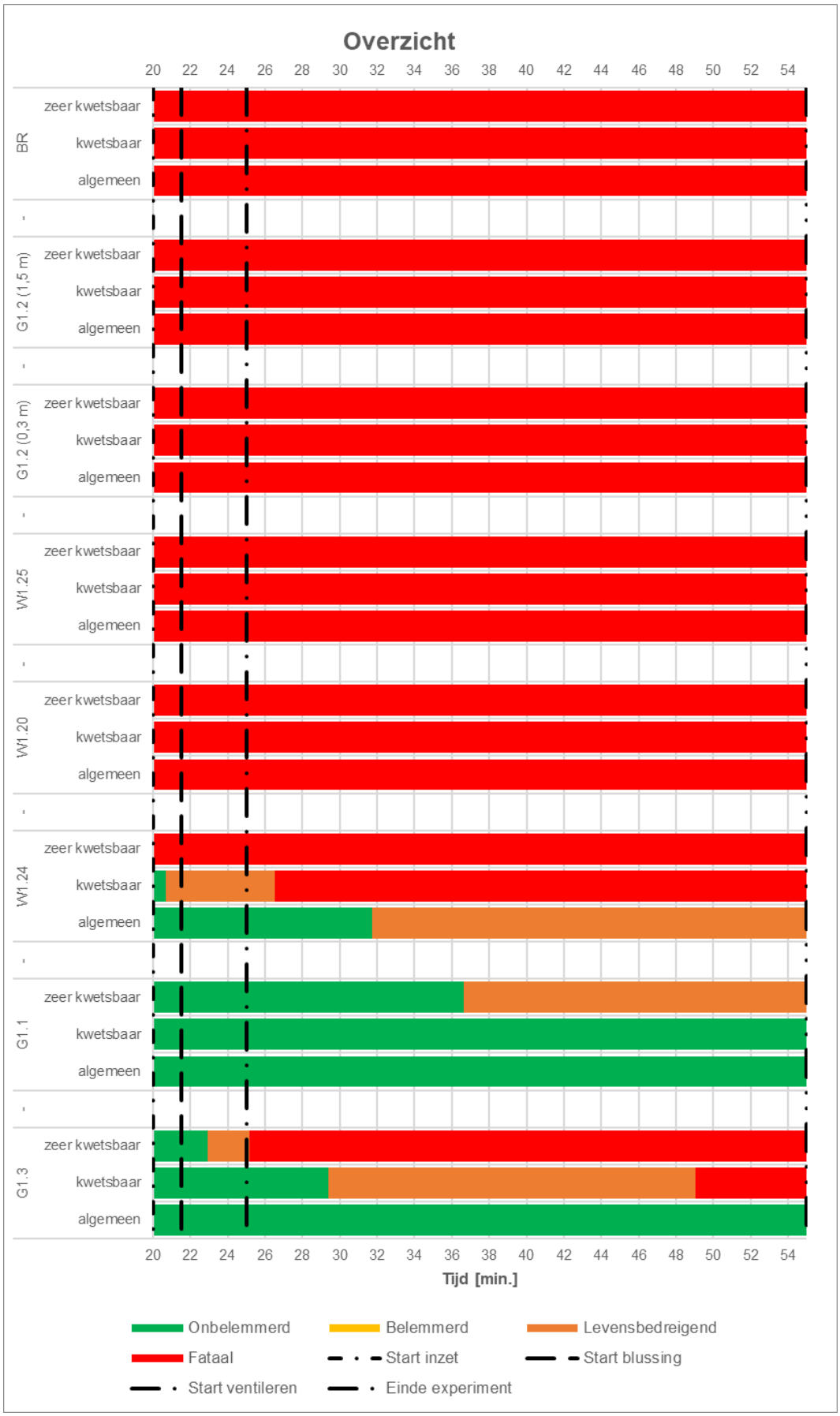
Heat



Visibility



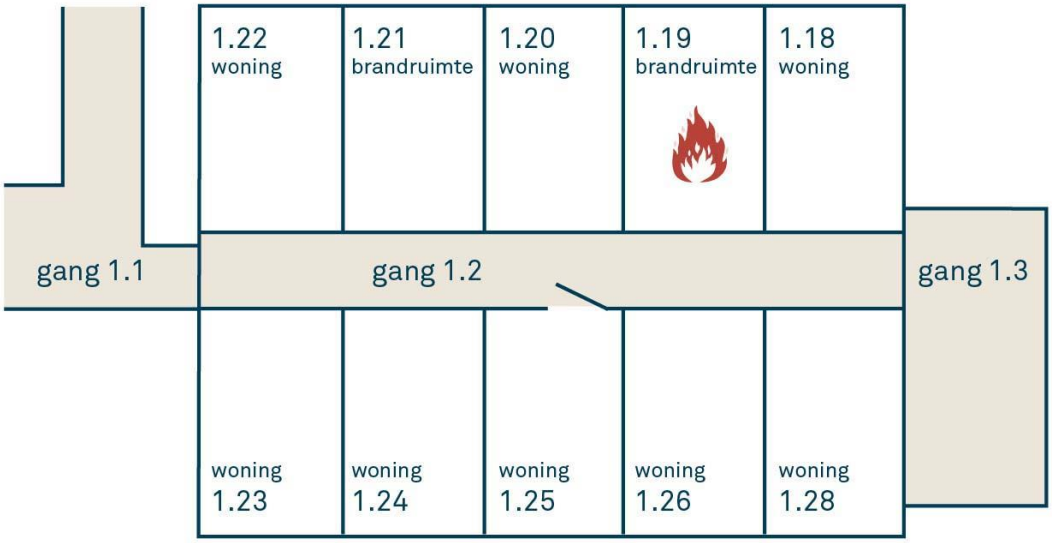
Overview


Overzicht
20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54
BR
G1.2 (1,5 m)
G1.2 (0,3 m)
W1.25
W1.20
W1.24
G1.1
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Start inzet
Start blussing
Start ventileren
Einde experiment

Test 19 (variant 8: balcony door open and door open) 05/07/19

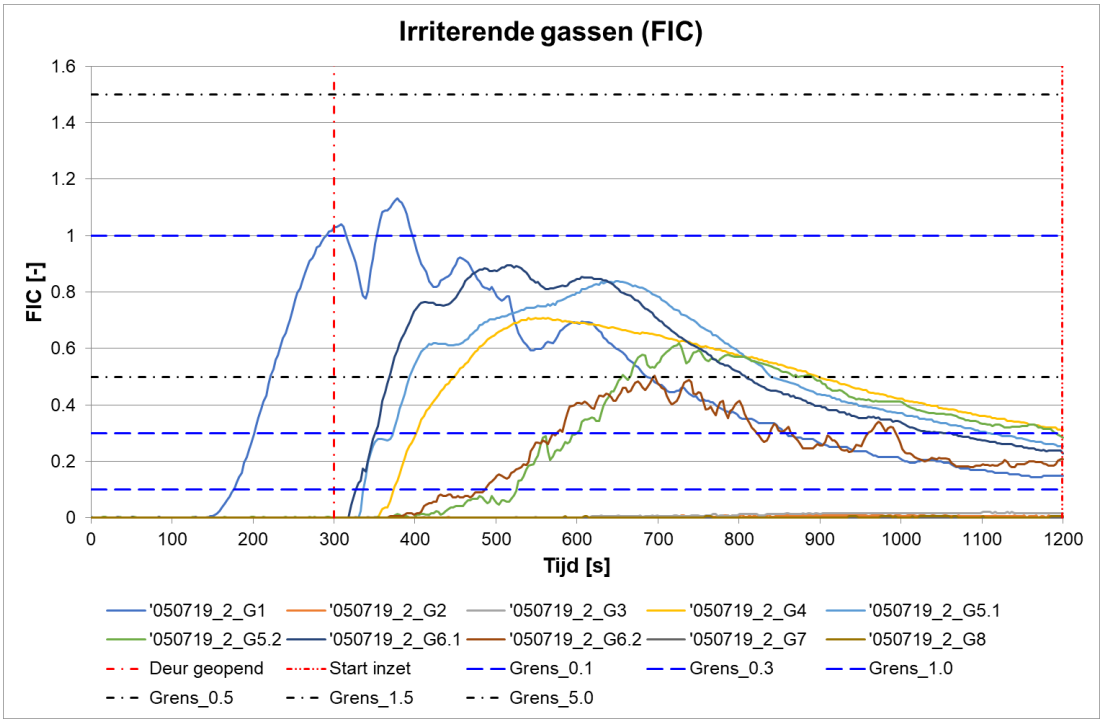
A. Description of the test

Test number	19
Date	05/07/2019
Morning / afternoon	Afternoon
Fire room	1.19
Door to the fire room open / closed	Open
Fire service deployment	Defensive interior attack
Extra measures	Balcony door open
Specific aspects	Camera A6 failed at t = 27 minutes. Residences 1.26 and 1.28 were ventilated somewhat later 'Ventilate rest of building' command was given at t=45 minutes instead of t=43.5 minutes. Residence 1.25 was ventilated at t=47 minutes instead of t=43.5 minutes.



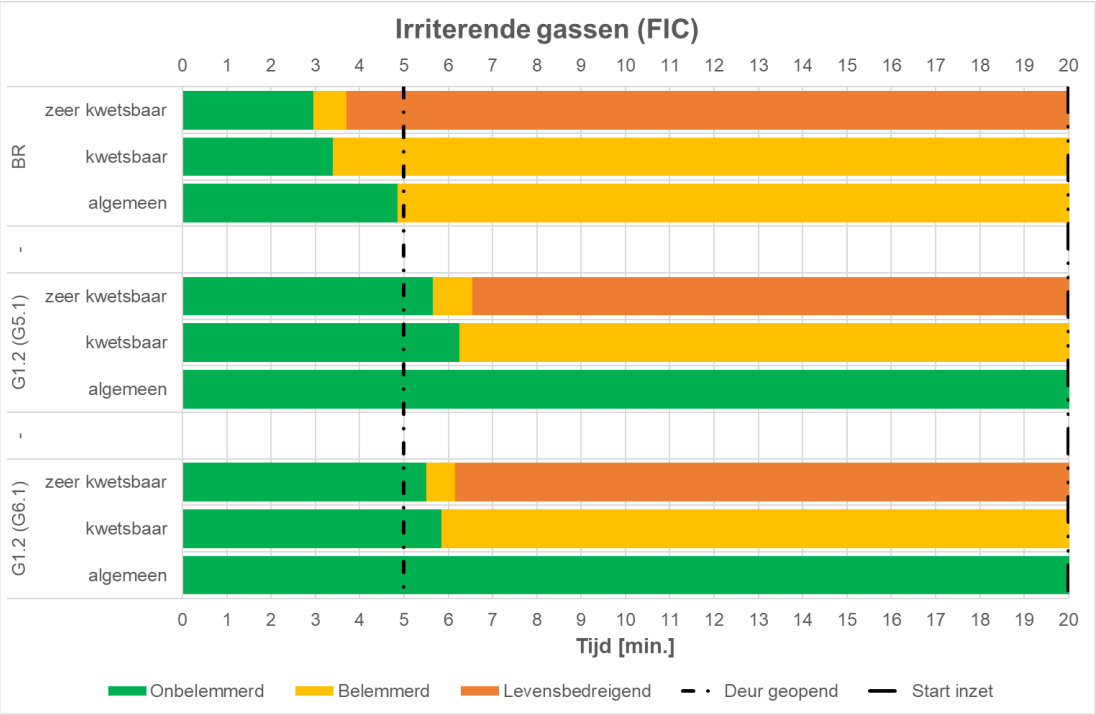
B. Escape phase (0 - 20 minutes)

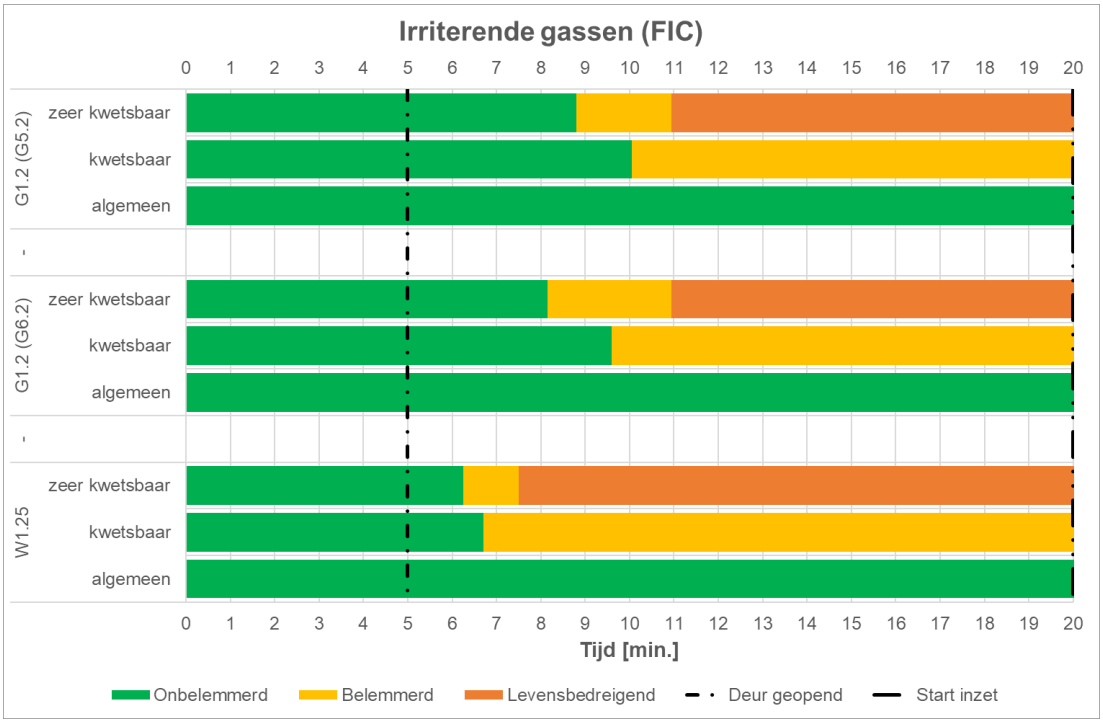
Irritant gases

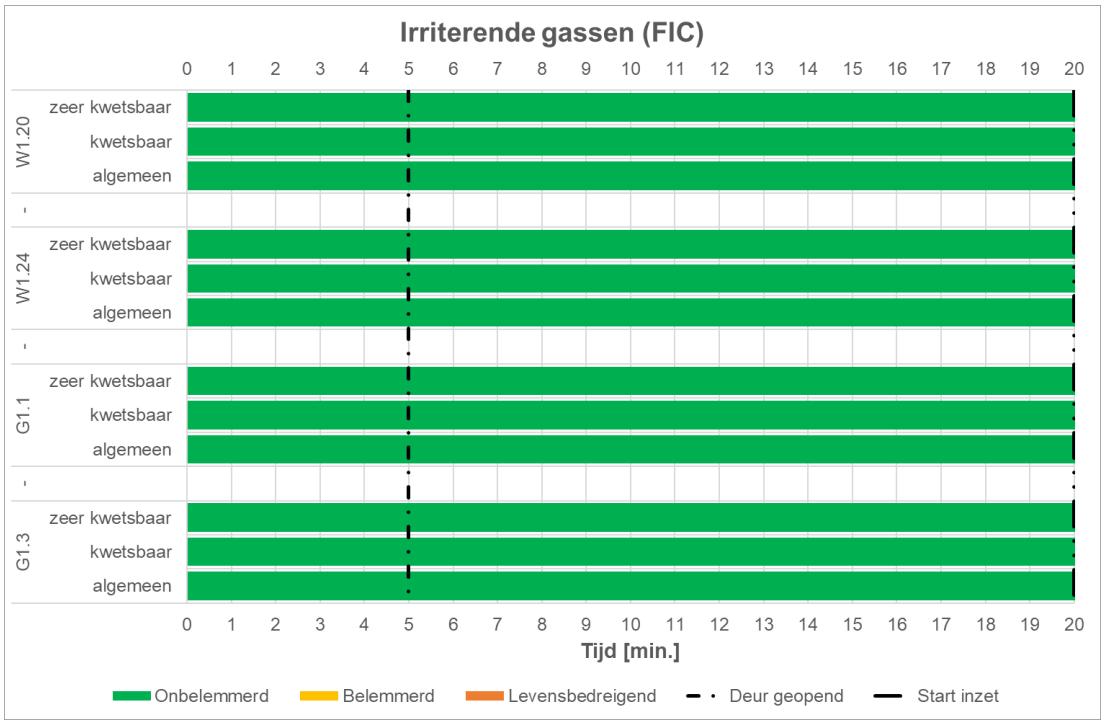


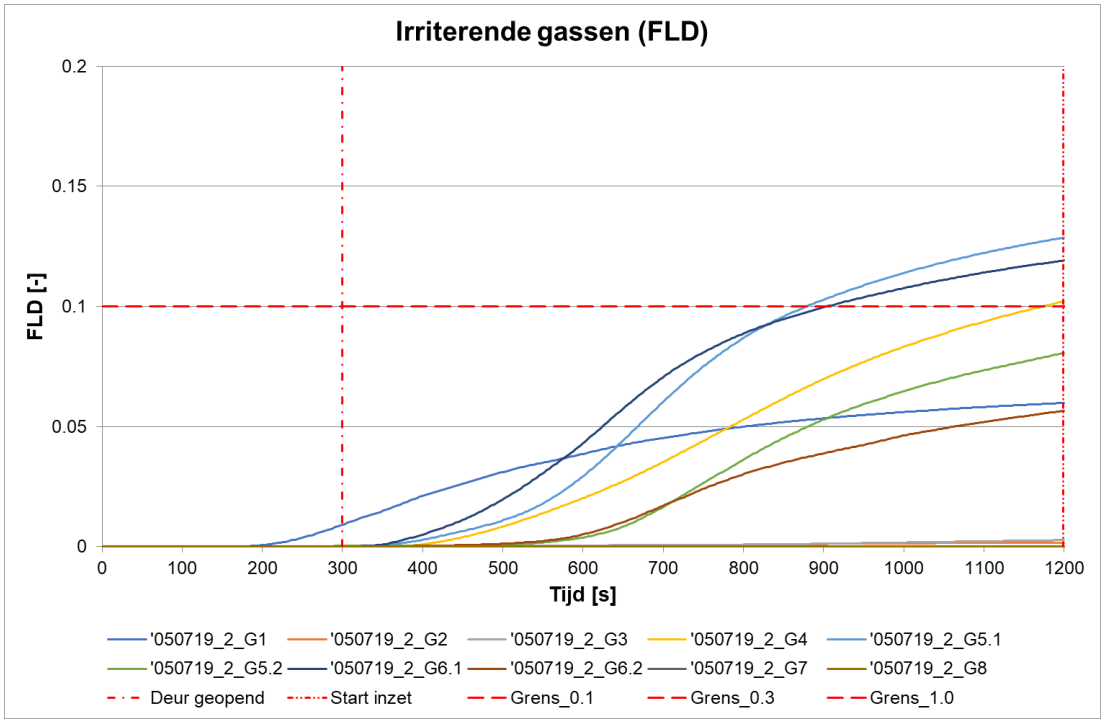
	Irritant gases (FIC)				
	Group	Threshold [-]	Safe [min.]	Impaired [min.]	Life-threatening [min.]
Fire room 1.19 G1	Highly vulnerable	0.1/0.5	3.0	3.7	> 3.7
	Vulnerable	0.3/1.5	3.4	> 55.0	-
	General	1.0/5.0	4.9	> 55.0	-
Residence 1.20 G2	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Residence 1.24 G3	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-

Residence 1.25 G4	Highly vulnerable	0.1/0.5	6.3	7.5	> 7.5
	Vulnerable	0.3/1.5	6.7	> 55.0	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.5	5.7	6.6	> 6.6
	Vulnerable	0.3/1.5	6.3	> 55.0	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.5	8.8	11.0	> 11.0
	Vulnerable	0.3/1.5	10.1	> 55.0	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.5	5.5	6.2	> 6.2
	Vulnerable	0.3/1.5	5.9	> 55.0	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.5	8.2	11.0	> 11.0
	Vulnerable	0.3/1.5	9.6	> 55.0	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.5	> 55.0	-	-
	Vulnerable	0.3/1.5	> 55.0	-	-
	General	1.0/5.0	> 55.0	-	-


Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G5.1)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.1)
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Start inzet

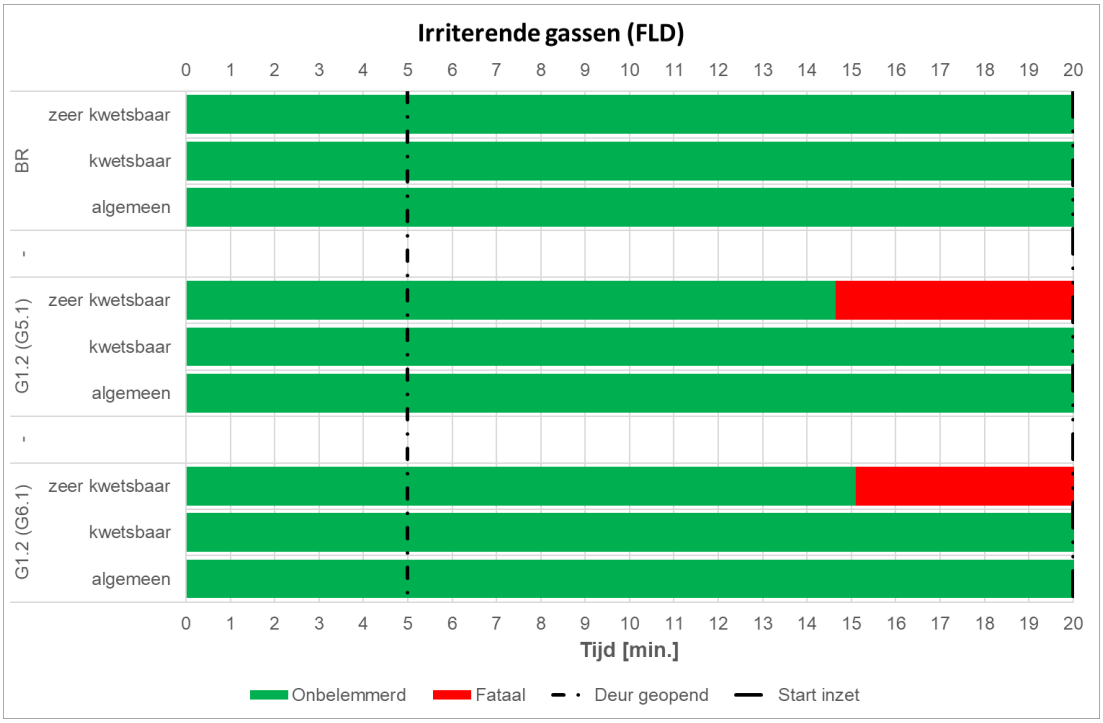

Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Start inzet


Irriterende gassen (FIC)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Deur geopend
Start inzet

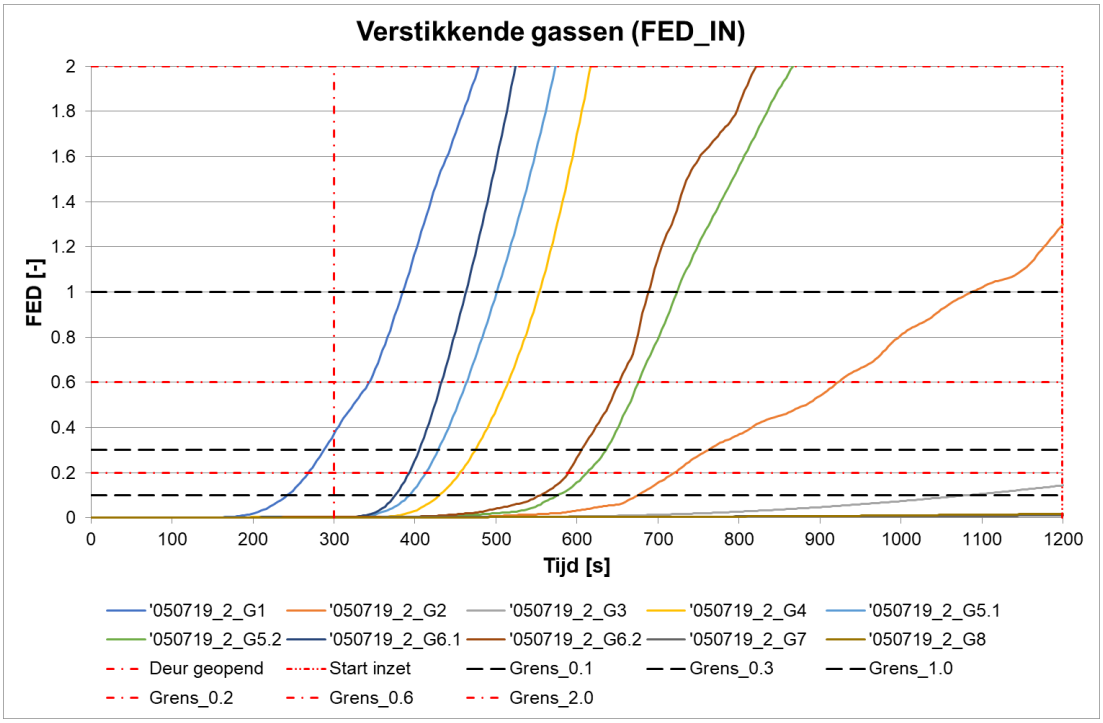

Irriterende gassen (FLD)
FLD [-]
0.2
0.15
0.1
0.05
0
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
Tijd [s]
'050719_2_G1
'050719_2_G2
'050719_2_G3
'050719_2_G4
'050719_2_G5.1
'050719_2_G5.2
'050719_2_G6.1
'050719_2_G6.2
'050719_2_G7
'050719_2_G8
Deur geopend
Start inzet
Grens_0.1
Grens_0.3
Grens_1.0

	Irritant gases (FLD)			
	Group	Threshold [-]	Safe [min.]	Impaired [min.]
Fire room 1.19 G1	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.20 G2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.24 G3	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Residence 1.25 G4	Highly vulnerable	0.1	> 19.6	> 19.6
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G5.1	Highly vulnerable	0.1	14.7	> 14.7
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G5.2	Highly vulnerable	0.1	33.1	> 33.1
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G6.1	Highly vulnerable	0.1	15.1	> 15.1
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.2 G6.2	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-

	General	1.0	> 55.0	-
Corridor 1.1 G7	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-
Corridor 1.3 G8	Highly vulnerable	0.1	> 55.0	-
	Vulnerable	0.3	> 55.0	-
	General	1.0	> 55.0	-

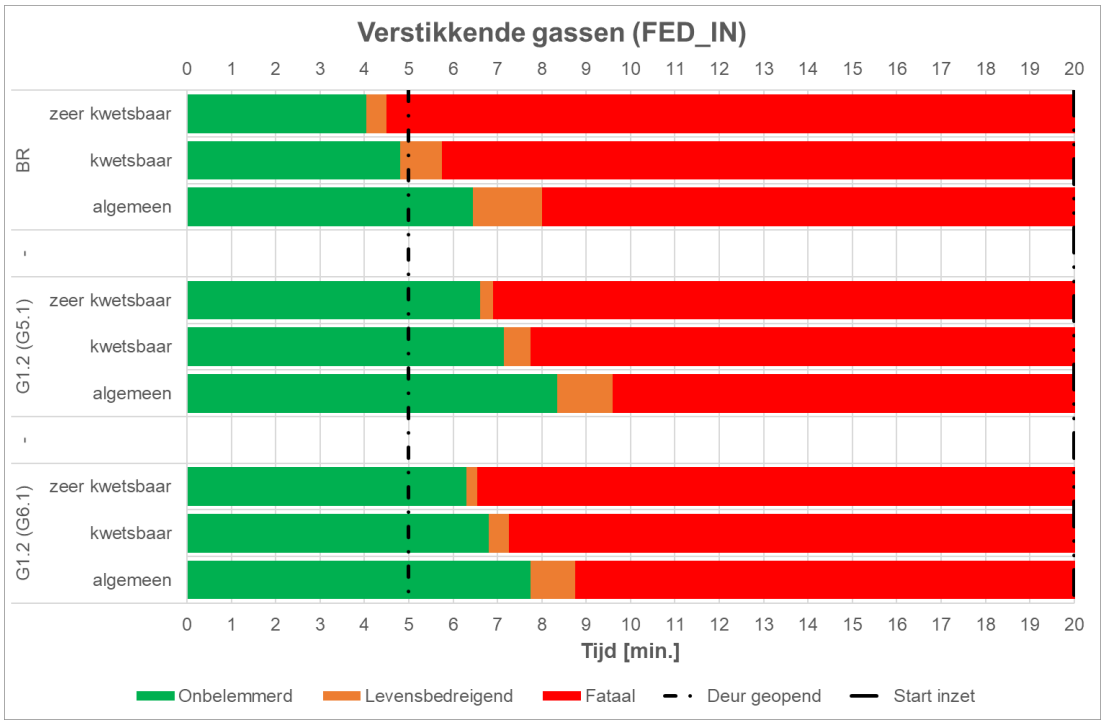


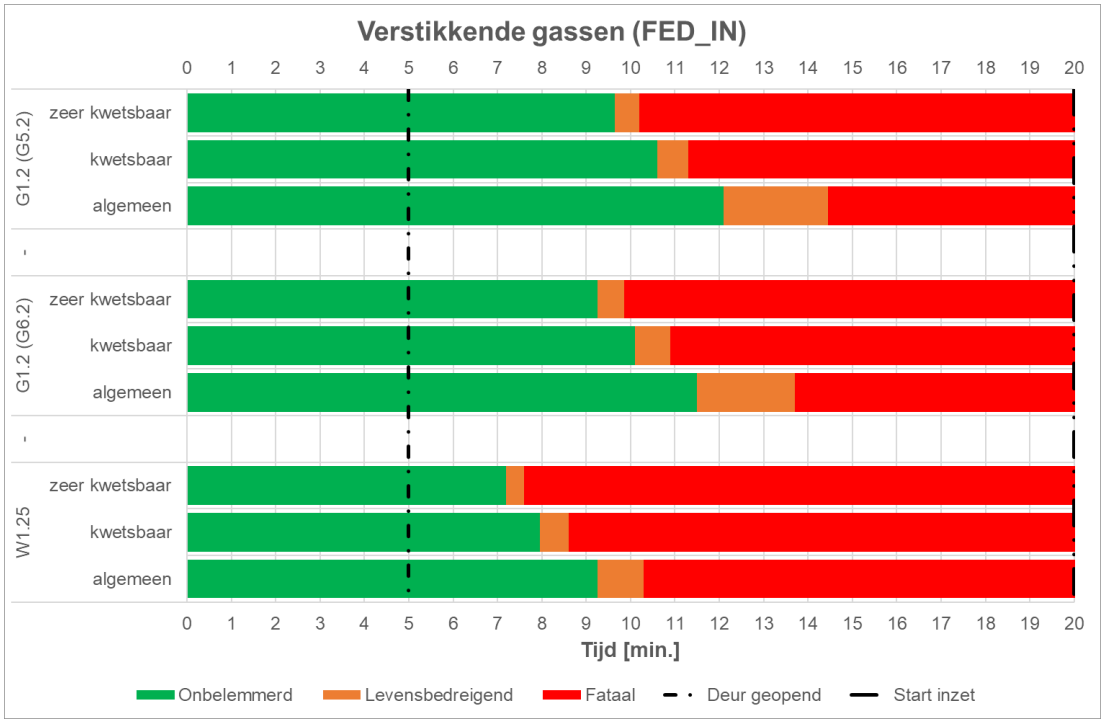
Asphyxiant gases

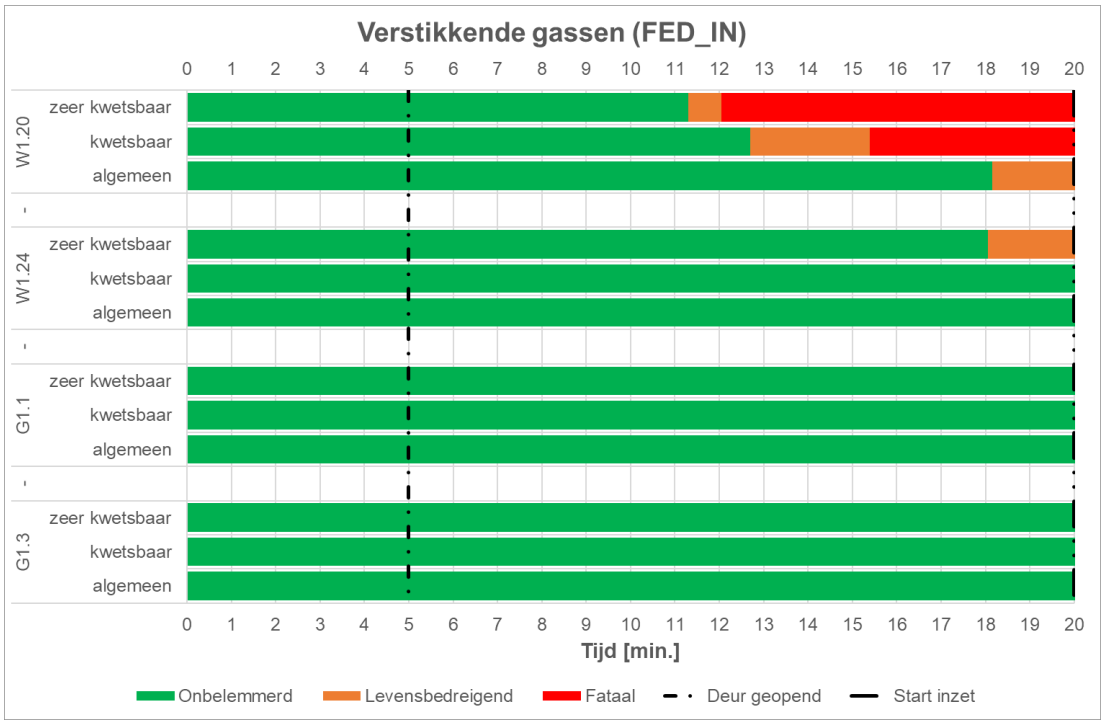


		Asphyxiant gases (FED_IN)			
	Group	Threshold [-]	Safe [min.]	Life-threatening [min.]	Fatal [min.]
Fire room 1.19 G1	Highly vulnerable	0.1/0.2	4.1	4.5	> 4.5
	Vulnerable	0.3/0.6	4.8	5.8	> 5.8
	General	1.0/2.0	6.5	8.0	> 8.0
Residence 1.20 G2	Highly vulnerable	0.1/0.2	11.3	12.1	> 12.1
	Vulnerable	0.3/0.6	12.7	15.4	> 15.4
	General	1.0/2.0	18.2	25.9	> 25.9
Residence 1.24 G3	Highly vulnerable	0.1/0.2	18.1	22.3	> 22.3
	Vulnerable	0.3/0.6	25.5	31.2	> 31.2
	General	1.0/2.0	37.1	> 55.0	-
Residence 1.25	Highly vulnerable	0.1/0.2	7.2	7.6	> 7.6

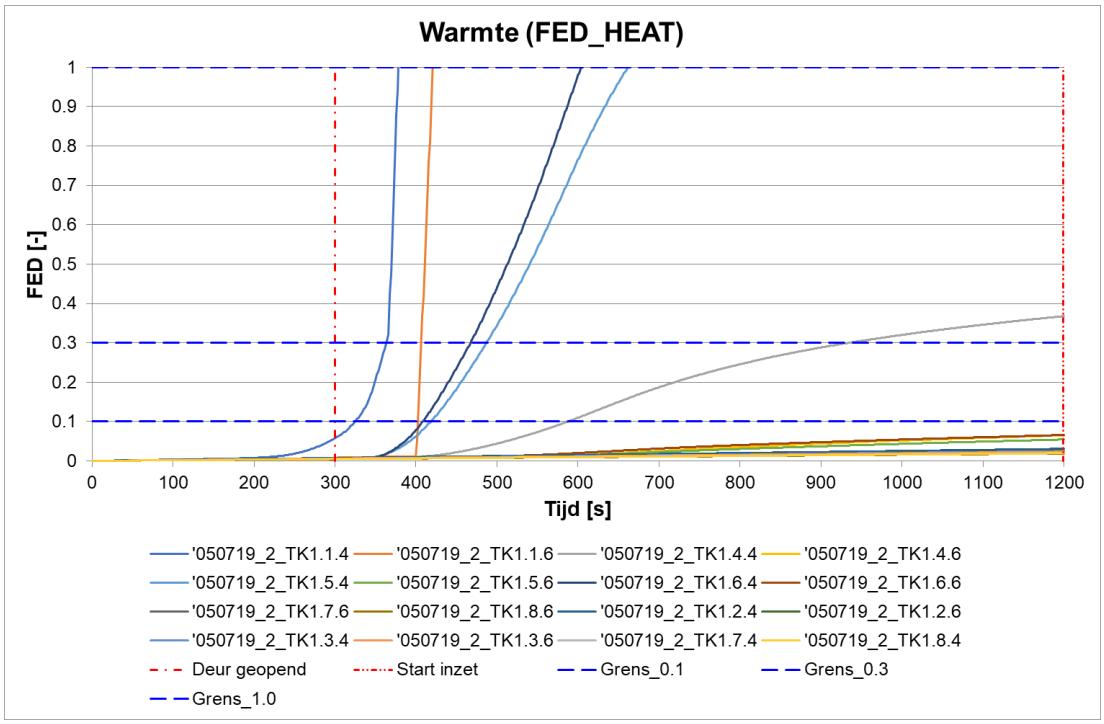
G4	Vulnerable	0.3/0.6	8.0	8.6	> 8.6
	General	1.0/2.0	9.3	10.3	> 10.3
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.2	6.6	6.9	> 6.9
	Vulnerable	0.3/0.6	7.2	7.8	> 7.8
	General	1.0/2.0	8.4	9.6	> 9.6
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.2	9.7	10.2	> 10.2
	Vulnerable	0.3/0.6	10.6	11.3	> 11.3
	General	1.0/2.0	12.1	14.5	> 14.5
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.2	6.3	6.6	> 6.6
	Vulnerable	0.3/0.6	6.8	7.3	> 7.3
	General	1.0/2.0	7.8	8.8	> 8.8
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.2	9.3	9.9	> 9.9
	Vulnerable	0.3/0.6	10.1	10.9	> 10.9
	General	1.0/2.0	11.5	13.7	> 13.7
Corridor 1.1 G7	Highly vulnerable	0.1/0.2	> 55.0	-	-
	Vulnerable	0.3/0.6	> 55.0	-	-
	General	1.0/2.0	> 55.0	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.2	45.8	> 55.0	-
	Vulnerable	0.3/0.6	> 55.0	-	-
	General	1.0/2.0	> 55.0	-	-


Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G5.1)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.1)
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet


Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet

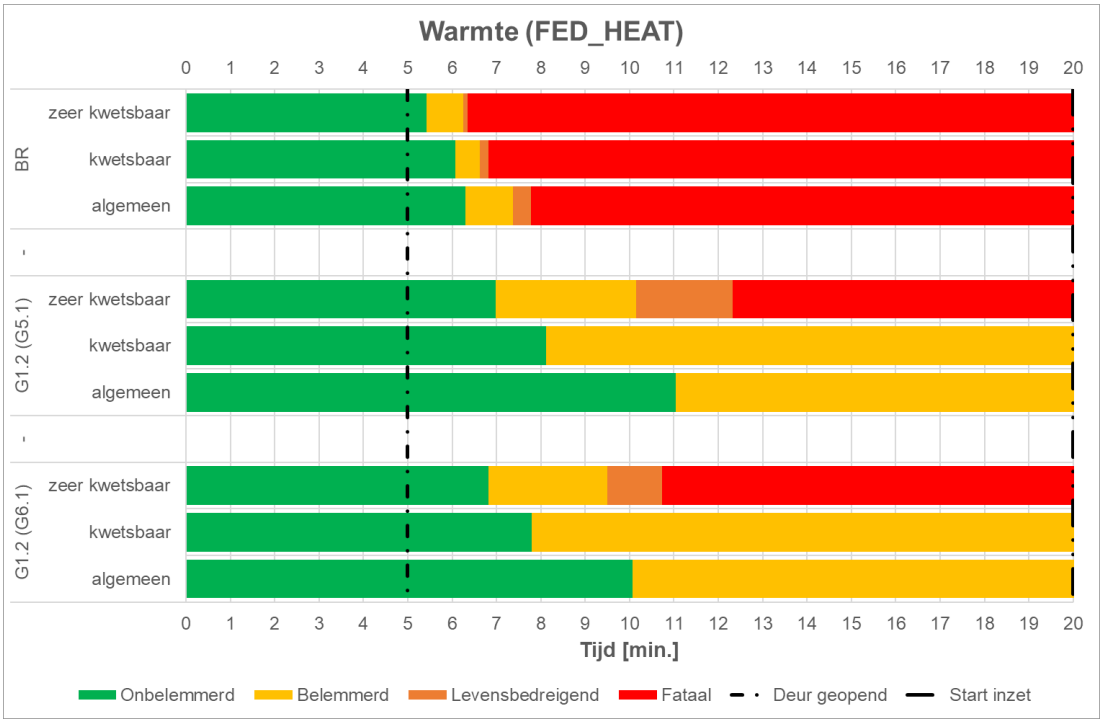

Verstikkende gassen (FED_IN)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet

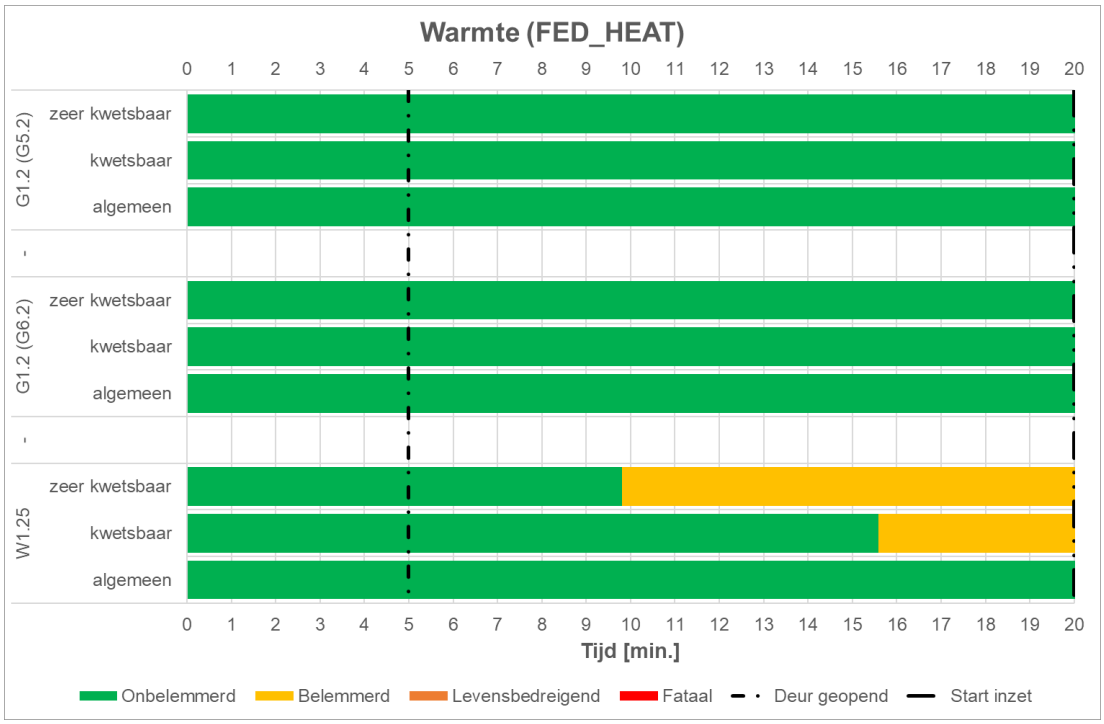
Heat

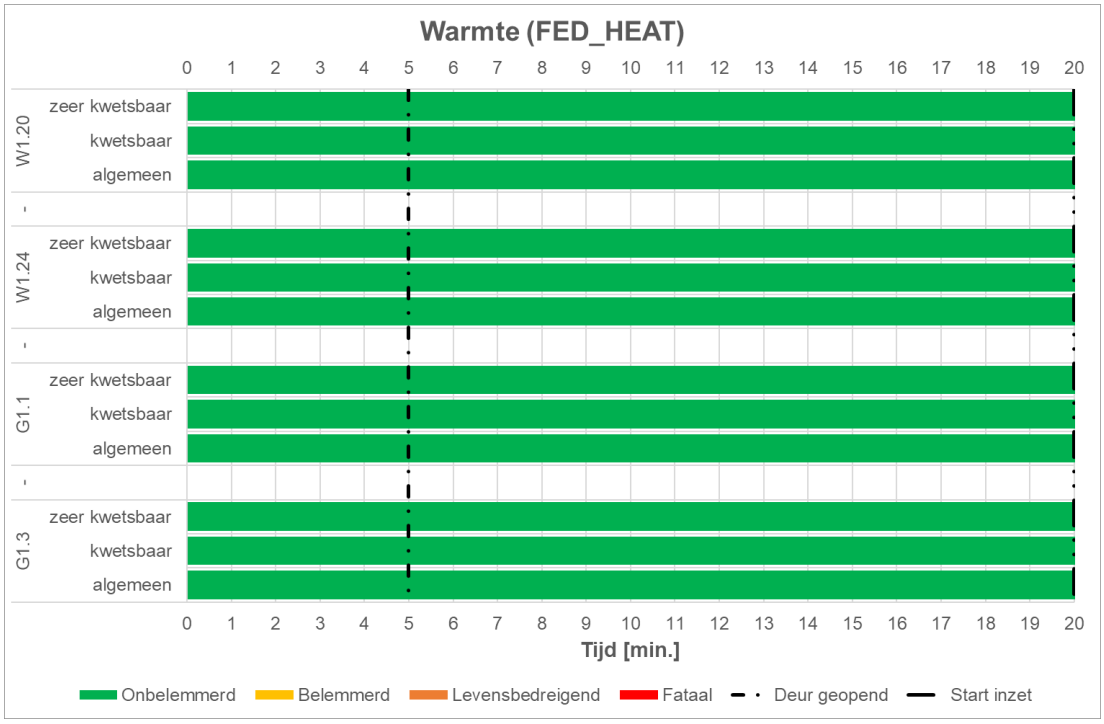

Warmte (FED_HEAT)
FED [-]
0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1
0 100 200 300 400 500 600 700 800 900 1000 1100 1200
Tijd [s]
'050719_2_TK1.1.4
'050719_2_TK1.1.6
'050719_2_TK1.4.4
'050719_2_TK1.4.6
'050719_2_TK1.5.4
'050719_2_TK1.5.6
'050719_2_TK1.6.4
'050719_2_TK1.6.6
'050719_2_TK1.7.6
'050719_2_TK1.8.6
'050719_2_TK1.2.4
'050719_2_TK1.2.6
'050719_2_TK1.3.4
'050719_2_TK1.3.6
'050719_2_TK1.7.4
'050719_2_TK1.8.4
Deur geopend
Start inzet
Grens_0.1
Grens_0.3
Grens_1.0

		Heat (FED_HEAT)				
	Group	Threshold [-]	Safe [min.]	Impaired [min.]	Life-threatening [min.]	Fatal [min.
Fire room 1.19 G1	Highly vulnerable	0.1/0.8/1.2	5.4	6.3	6.4	> 6.4
	Vulnerable	0.3/2.4/12.0	6.1	6.6	6.8	> 6.8
	General	1.0/8.0/12.0	6.3	7.4	7.8	> 7.8
Residence 1.20 G2	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Residence 1.24 G3	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Residence 1.25 G4	Highly vulnerable	0.1/0.8/1.2	9.8	> 55.0	-	-
	Vulnerable	0.3/2.4/12.0	15.6	> 55.0	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G5.1	Highly vulnerable	0.1/0.8/1.2	7.0	10.2	12.3	> 12.3
	Vulnerable	0.3/2.4/12.0	8.1	> 55.0	-	-
	General	1.0/8.0/12.0	11.0	> 55.0	-	-
Corridor 1.2 G5.2	Highly vulnerable	0.1/0.8/1.2	42.8	> 55.0	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.2 G6.1	Highly vulnerable	0.1/0.8/1.2	6.8	9.5	10.7	> 10.7

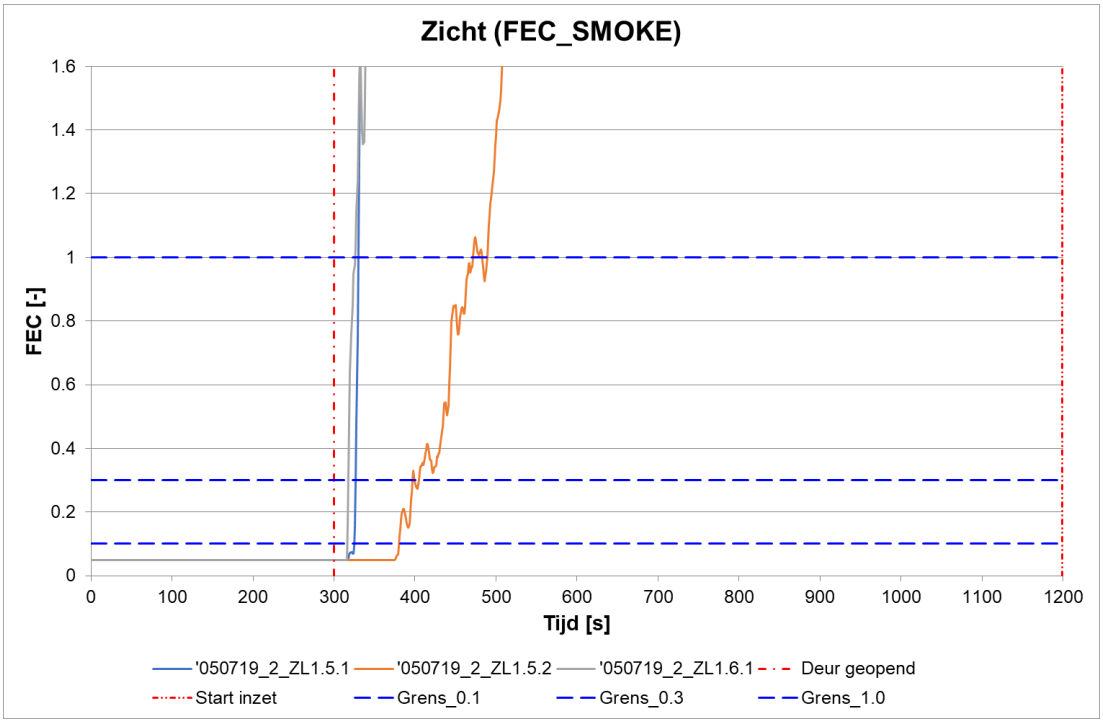
	Vulnerable	0.3/2.4/12.0	7.8	> 55.0	-	-
	General	1.0/8.0/12.0	10.1	> 55.0	-	-
Corridor 1.2 G6.2	Highly vulnerable	0.1/0.8/1.2	35.9	> 55.0	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.1 G7	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-
Corridor 1.3 G8	Highly vulnerable	0.1/0.8/1.2	> 55.0	-	-	-
	Vulnerable	0.3/2.4/12.0	> 55.0	-	-	-
	General	1.0/8.0/12.0	> 55.0	-	-	-




Warmte (FED_HEAT)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
G1.2 (G5.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (G6.2)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet

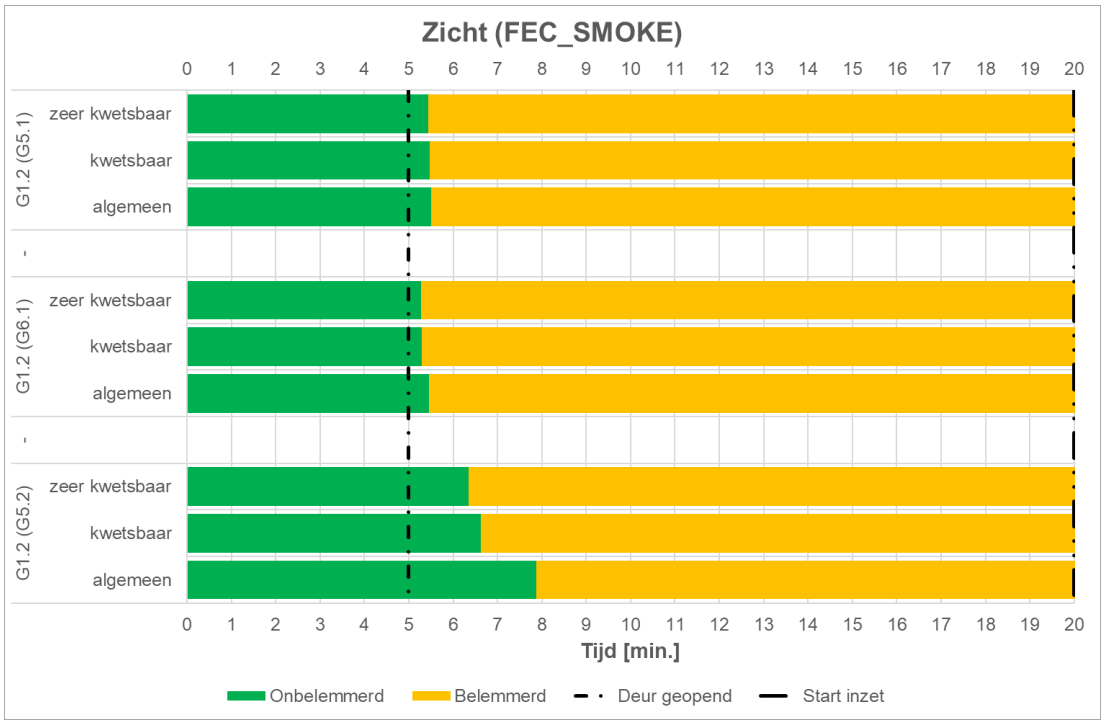

Warmte (FED_HEAT)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet

Visibility

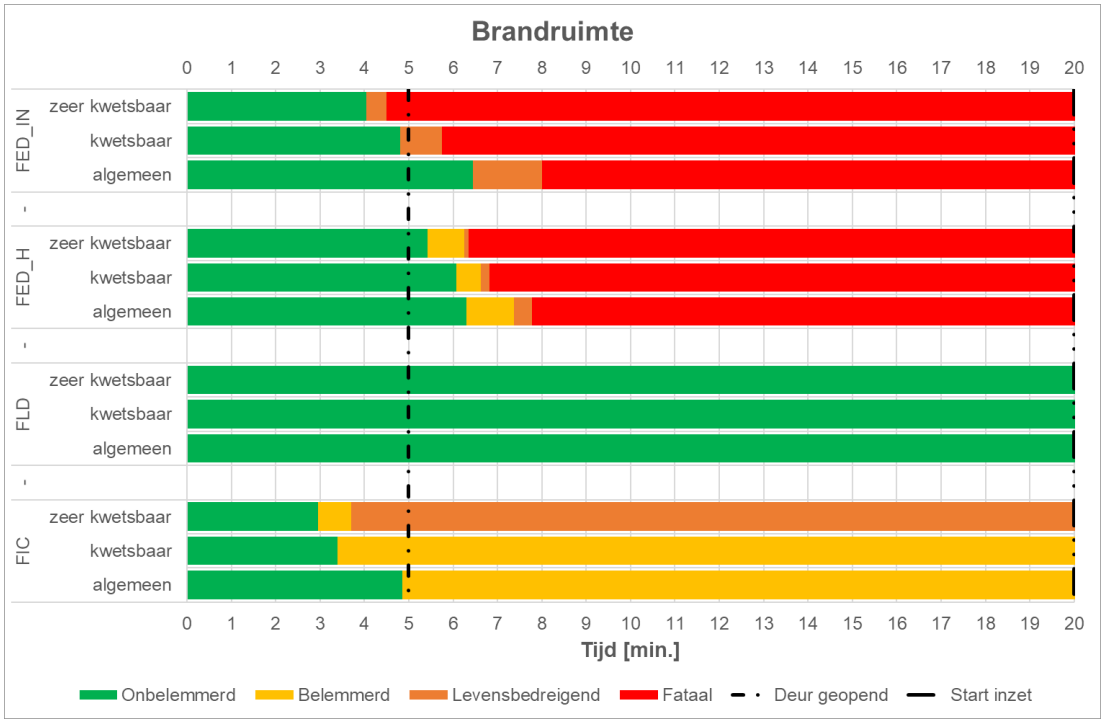


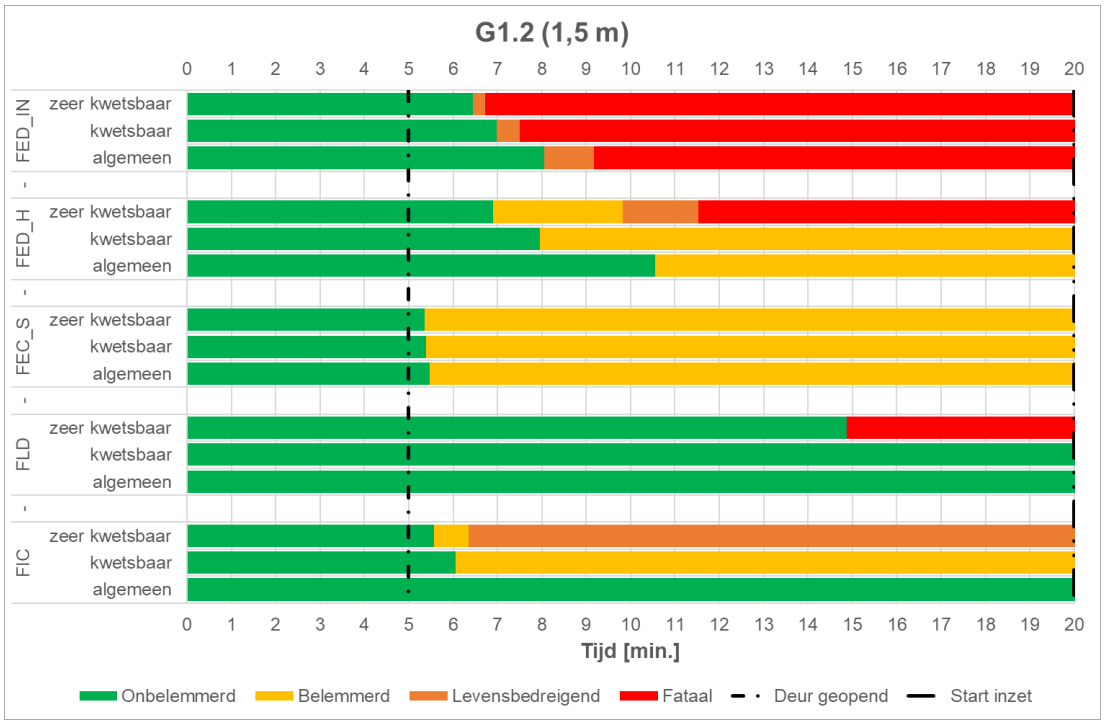
		Visibility (FEC_SMOKE)		
	Group	Threshold [-]	Safe [min.]	Impaired [min.]
Corridor 1.2 G5.1	Highly vulnerable	0.1	5.4	> 5.4
	Vulnerable	0.3	5.5	> 5.5
	General	1.0	5.5	> 5.5
Corridor 1.2 G5.2	Highly vulnerable	0.1	6.4	> 6.4
	Vulnerable	0.3	6.6	> 6.6
	General	1.0	7.9	> 7.9
Corridor 1.2 G6.1	Highly vulnerable	0.1	5.3	> 5.3
	Vulnerable	0.3	5.3	> 5.3
	General	1.0	5.5	> 5.5
Corridor 1.2	Highly vulnerable	0.1	6.4	> 6.4

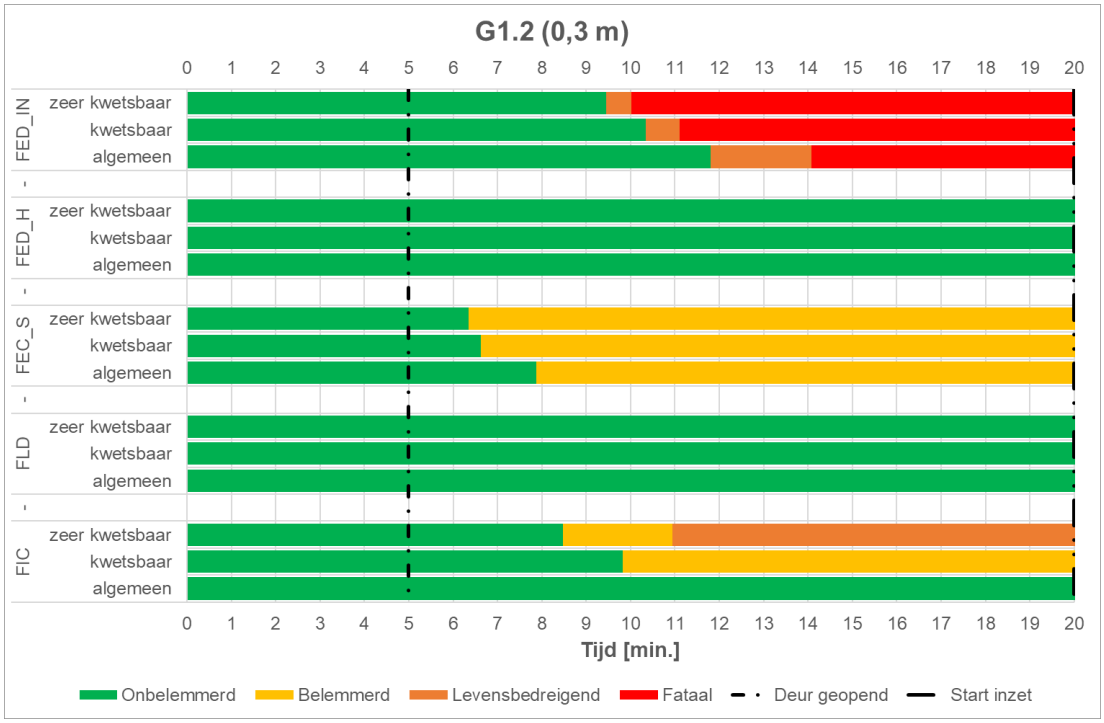
G6.2	Vulnerable	0.3	6.6	> 6.6
	General	1.0	7.9	> 7.9



Overview

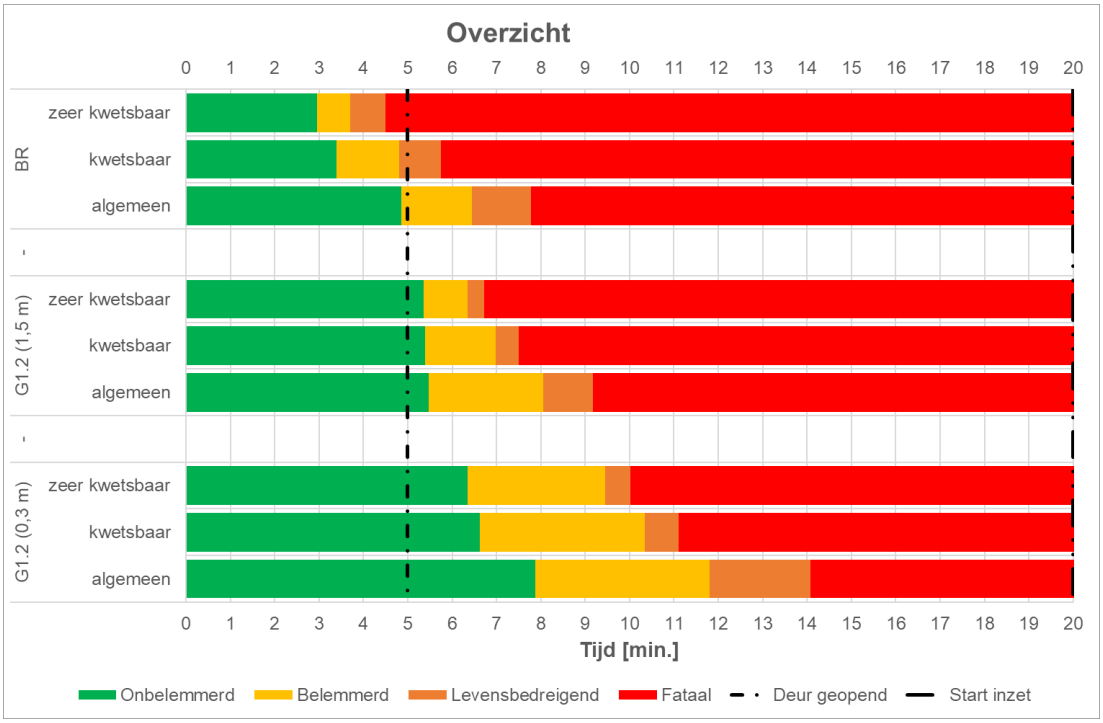


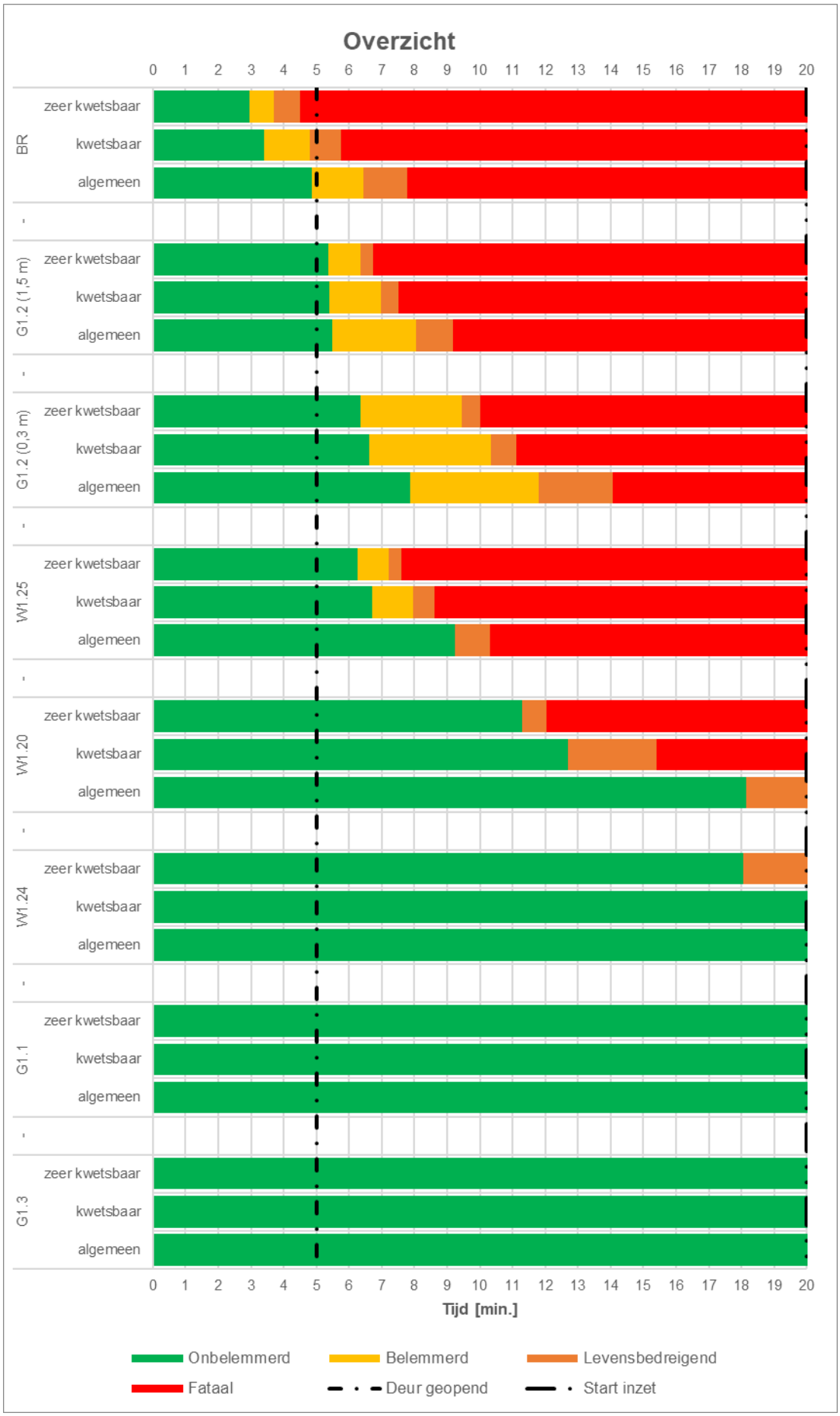

G1.2 (1,5 m)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
FED_IN
FED_H
FEC_S
FLD
FIC
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet


G1.2 (0,3 m)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
FED_IN
FED_H
FEC_S
FLD
FIC
zeer kwetsbaar
kwetsbaar
algemeen
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet

	Overview	Escape	Survivability		
	Group	Safe [min.]	Impaired [min.]	Life-threatening [min.]	Fatal [min.]
Fire room 1.19 G1	Highly vulnerable	3.0	3.7	4.5	> 4.5
	Vulnerable	3.4	4.8	5.8	> 5.8
	General	4.9	6.5	7.8	> 7.8
Residence 1.20 G2	Highly vulnerable	11.3	11.3	12.1	> 12.1
	Vulnerable	12.7	12.7	15.4	> 15.4
	General	18.2	18.2	25.9	> 25.9
Residence 1.24 G3	Highly vulnerable	18.1	18.1	22.3	> 22.3
	Vulnerable	25.5	25.5	31.2	> 31.2
	General	37.1	37.1	> 55.0	-
Residence 1.25 G4	Highly vulnerable	6.3	7.2	7.6	> 7.6
	Vulnerable	6.7	8.0	8.6	> 8.6
	General	9.3	9.3	10.3	> 10.3
Corridor 1.2 G5.1	Highly vulnerable	5.4	6.6	6.9	> 6.9
	Vulnerable	5.5	7.2	7.8	> 7.8
	General	5.5	8.4	9.6	> 9.6
Corridor 1.2 G5.2	Highly vulnerable	6.4	9.7	10.2	> 10.2
	Vulnerable	6.6	10.6	11.3	> 11.3
	General	7.9	12.1	14.5	> 14.5
Corridor 1.2 G6.1	Highly vulnerable	5.3	6.2	6.6	> 6.6
	Vulnerable	5.3	6.8	7.3	> 7.3
	General	5.5	7.8	8.8	> 8.8
Corridor 1.2	Highly vulnerable	6.4	9.3	9.9	> 9.9

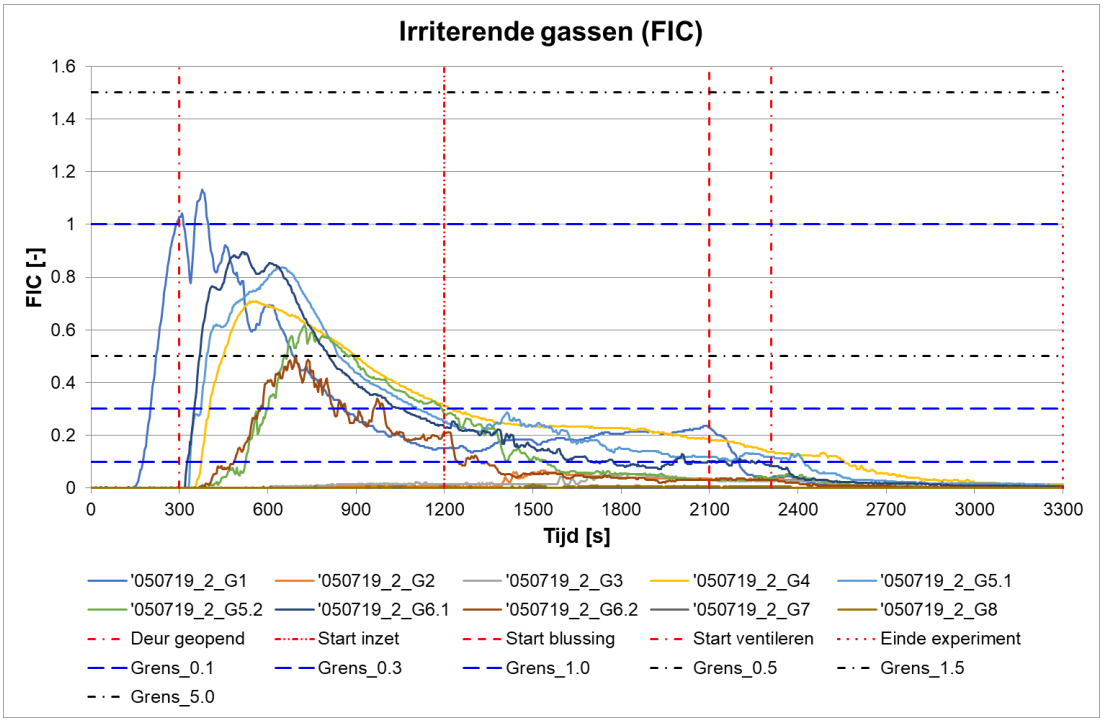
G6.2	Vulnerable	6.6	10.1	10.9	> 10.9
	General	7.9	11.5	13.7	> 13.7
Corridor 1.1 G7	Highly vulnerable	> 55.0	-	-	-
	Vulnerable	> 55.0	-	-	-
	General	> 55.0	-	-	-
Corridor 1.3 G8	Highly vulnerable	45.8	45.8	> 55.0	-
	Vulnerable	> 55.0	-	-	-
	General	> 55.0	-	-	-

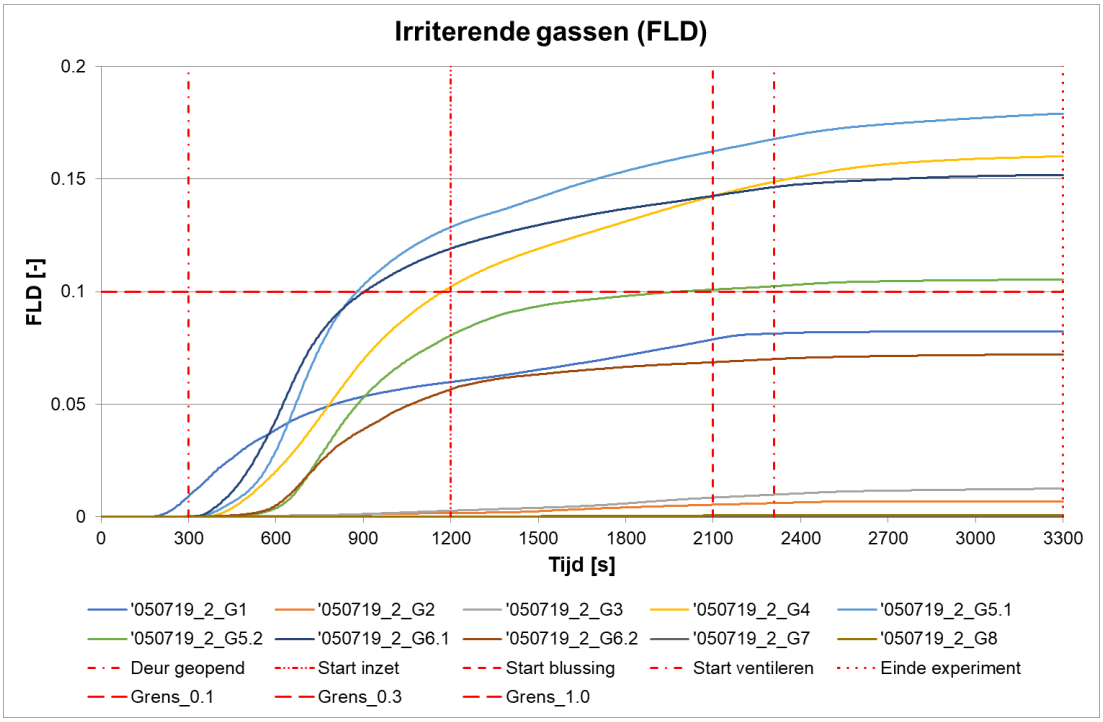



Overzicht
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
BR
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (1,5 m)
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.2 (0,3 m)
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.25
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.20
zeer kwetsbaar
kwetsbaar
algemeen
-
W1.24
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.1
zeer kwetsbaar
kwetsbaar
algemeen
-
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Deur geopend
Start inzet

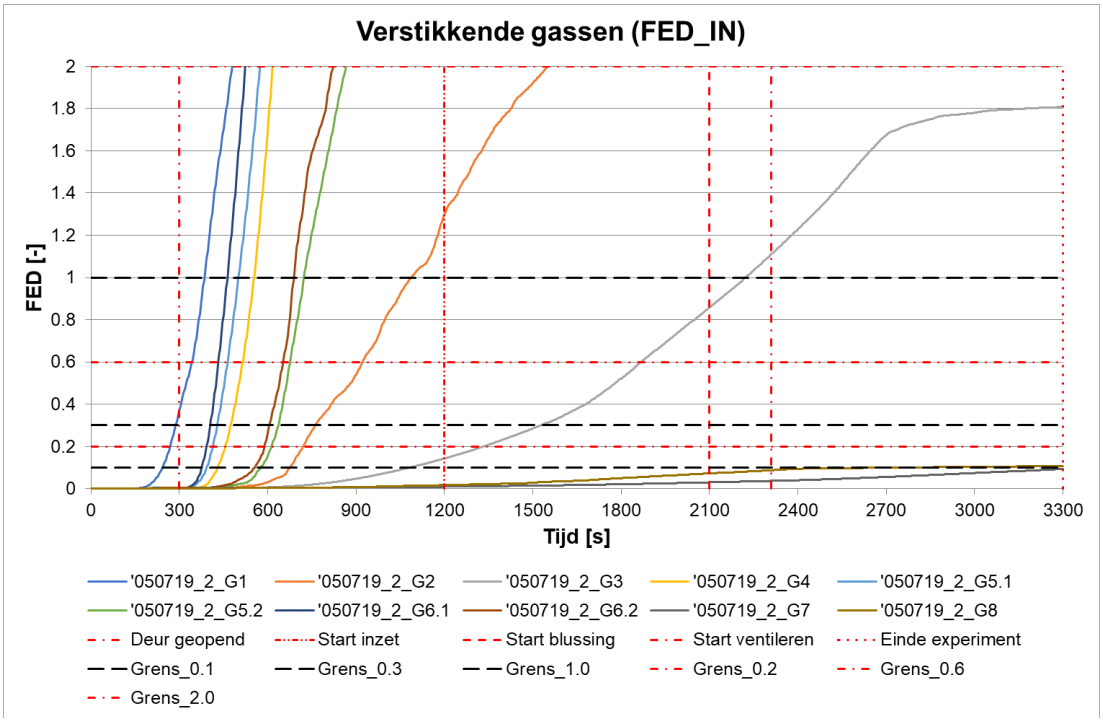
C. Deployment phase (20 - 55 minutes)

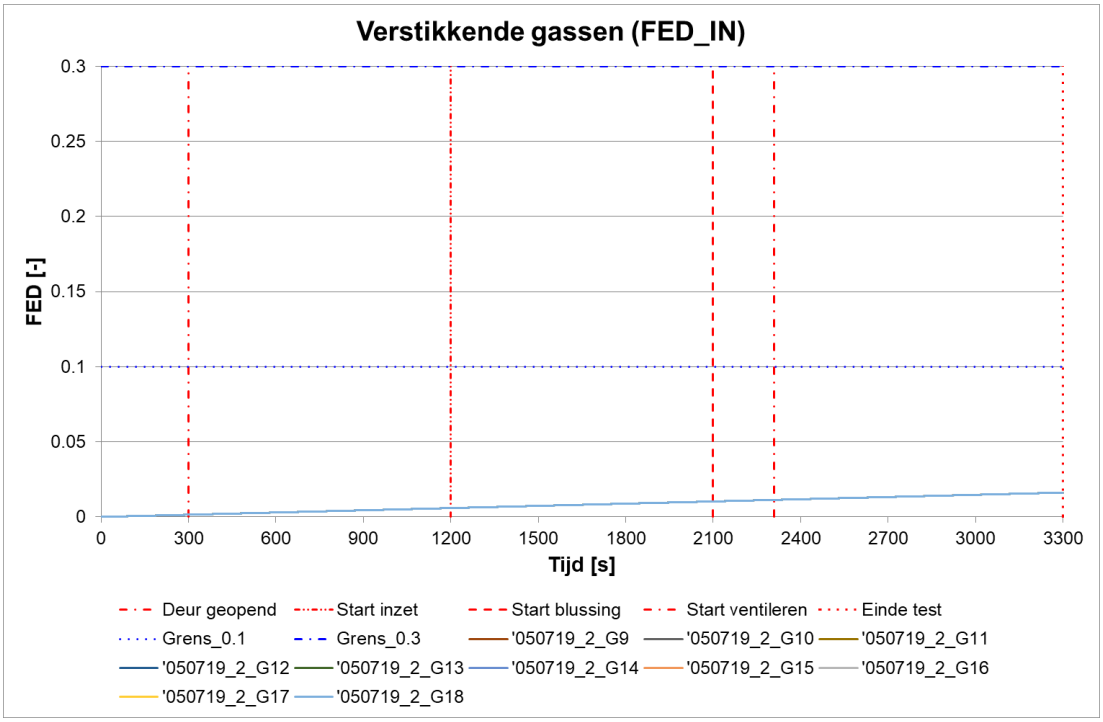
Irritant gases



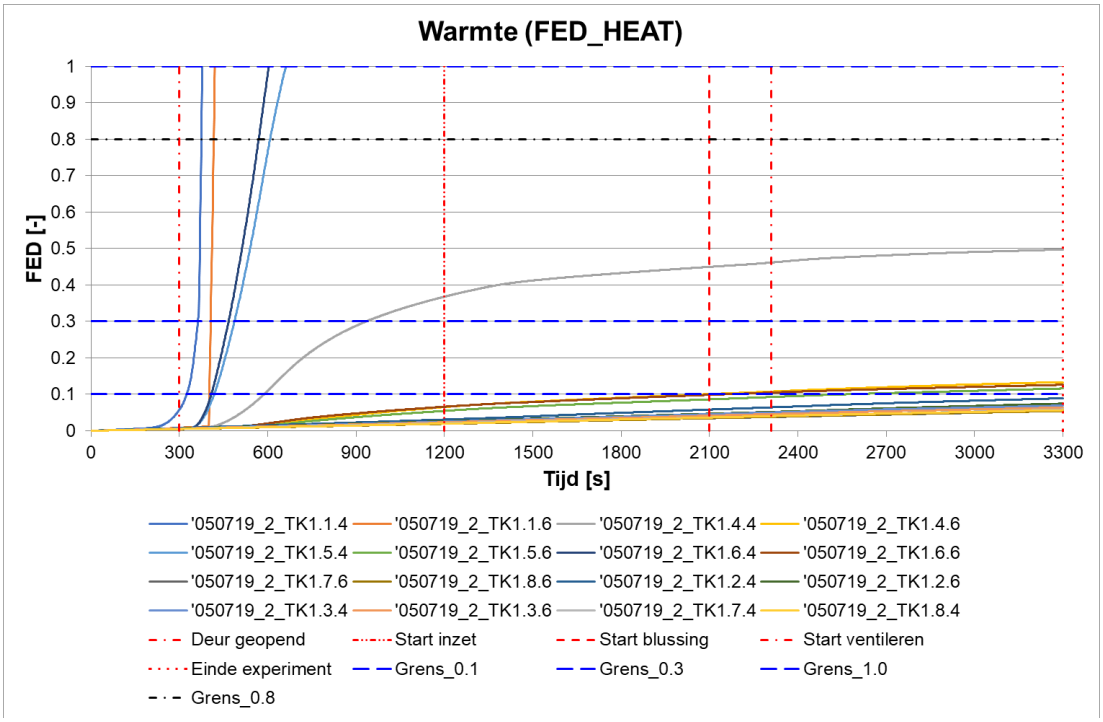


Asphyxiant gases

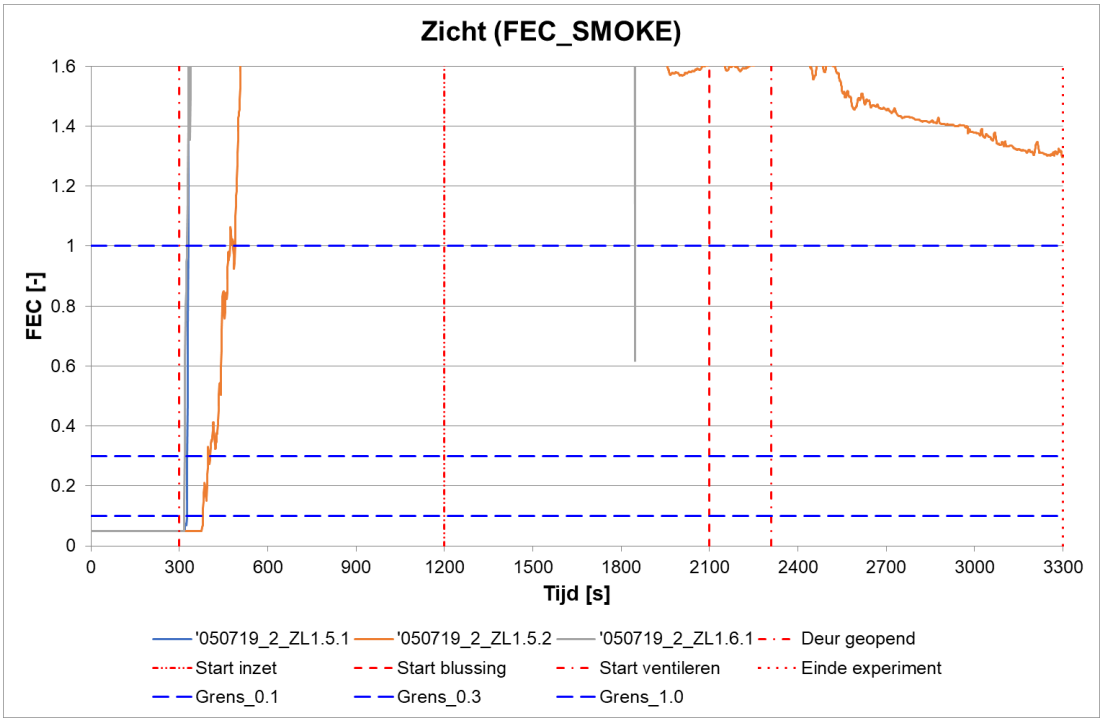




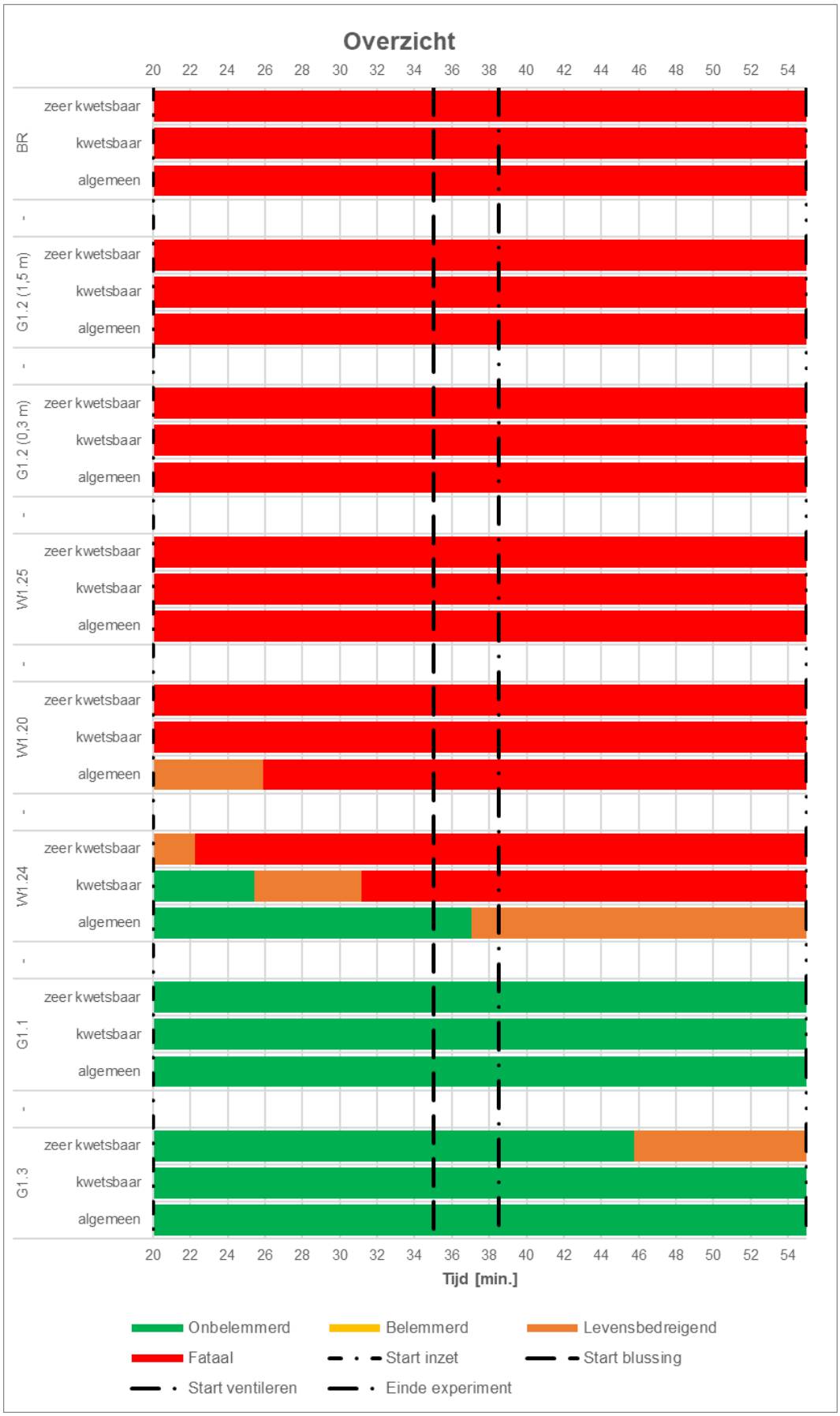
Heat



Visibility



Overview


Overzicht
20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54
BR
G1.2 (1,5 m)
G1.2 (0,3 m)
W1.25
W1.20
W1.24
G1.1
G1.3
zeer kwetsbaar
kwetsbaar
algemeen
-
Tijd [min.]
Onbelemmerd
Belemmerd
Levensbedreigend
Fataal
Start inzet
Start blussing
Start ventileren
Einde experiment