

Audit Number: 476
Date: 20-12-2022 Time: 11:56
Consequence Summary Report
Workspace: Developark_long pipe
Study: Study

Summary Basis
These tables will only report global values set in the parameters. Values that are modified in the study tree will not be reported.
The report is context sensitive, and filters up to the study level. You will need to generate multiple summary reports if you have multiple studies in your workspace.

Discharge Results (after atmospheric expansion)

Model: Scenario group: Pressure vessel									
Break	Rottterdam - B 3.0m/s	121.909	-121.273	0	0	0.00515	2039.51	1800	
	Rottterdam - D 1.5m/s	121.909	-121.273	0	0	0.00515	2039.51	1800	
	Rottterdam - D 3.0m/s	121.909	-121.273	0	0	0.00515	2039.51	1800	
	Rottterdam - D 9.0m/s	121.909	-121.273	0	0	0.00515	2039.51	1800	
	Rottterdam - D 3.0m/s	121.909	-121.273	0	0	0.00515	2039.51	1800	
Dispersion Results									
nord dispersion parameters									
core evaporation time									
18.75 s									
flammable evaporation time									
800 s									
height of interest									
1 m									

Distance downwind to defined concentrations

The reported concentration of interest is defined at the scenario

Path	Scenario	Weather	Distance to DFL [m]	Distance to LFL [m]	Distance to LFL fraction [m]
Study\Study\Scenario group\Pressure vessel	Break	Rottterdam - B 3.0m/s	0.250698	1.03786	1.03786
		Rottterdam - D 1.5m/s	0.250698	0.959649	0.959649
		Rottterdam - D 3.0m/s	0.262535	1.04021	1.04021
		Rottterdam - D 9.0m/s	n/a	1.06417	1.06417

Jet Fire Results

Distance downwind to defined radiation levels

The reported radiation levels are defined in the parameters

Path	Scenario	Weather	Flame length [m]	Distance downwind to intensity level 1 (3 kW/m2) [m]	Distance downwind to intensity level 2 (10 kW/m2) [m]	Distance downwind to intensity level 3 (33 kW/m2) [m]
Study\Study\Scenario group\Pressure vessel	Break	Rottterdam - B 3.0m/s	91.2925	141.913	n/a	n/a
		Rottterdam - D 1.5m/s	100.205	157.897	n/a	n/a
		Rottterdam - D 3.0m/s	79.2982	138.39	n/a	n/a
		Rottterdam - D 9.0m/s	71.4805	130.078	54.1468	n/a

Flash Fire Results

Distance downwind to defined concentrations

The reported LFL and LFL fraction are defined in the respective material property

Path	Scenario	Weather	Distance downwind to LFL [m]	Distance downwind to LFL fraction [m]
Study\Study\Scenario group\Pressure vessel	Break	Rottterdam - B 3.0m/s	1.03786	1.03786
		Rottterdam - D 1.5m/s	0.959649	0.959649
		Rottterdam - D 3.0m/s	1.04021	1.04021
		Rottterdam - D 9.0m/s	1.06417	1.06417

Maximum distance to LFL fraction at any height

Path	Scenario	Weather	Max flash fire distance [m]	Height of the max flash fire distance [m]	Time [s]
Study\Study\Scenario group\Pressure vessel	Break	Rottterdam - B 3.0m/s	29.0287	106.893	17.4892
		Rottterdam - D 1.5m/s	31.3707	160.842	17.3073
		Rottterdam - D 3.0m/s	39.7004	93.821	17.4831
		Rottterdam - D 9.0m/s	43.7348	67.1658	5.98881

Explosion Results

Evolution scenarios for worst-case maximum downwind distance to defined overpressures. The worst-case explosion will be modelled in the risk calculations if ignition conditions are present at the time for the scenario.

The reported overpressures are defined in the explosion parameters

Path	Scenario	Weather	Overpressure level [bar]	Maximum distance [m]	Diameter [m]
Study\Study\Scenario group\Pressure vessel	Break	Rottterdam - B 3.0m/s	0.02	421.761	808.443
			0.1	107.605	260.46
			0.3	53.9604	92.3648
			0.02	497.288	979.743
			0.1	125.916	237.002
			0.3	61.9594	100.089
		Rottterdam - D 1.5m/s	0.02	411.281	799.138
			0.1	108.236	193.495
		Rottterdam - D 3.0m/s	0.3	56.1399	89.3719
			0.02	364.727	703.534
			0.1	96.1605	170.181
			0.3	52.1361	78.3324
		Rottterdam - D 9.0m/s	0.02	297.851	14.5677
			0.1	297.851	14.5677
			0.3	297.851	14.5677
			0.02	492.275	16.1035
			0.1	125.916	237.002
			0.3	61.9594	100.089
		Rottterdam - D 1.5m/s	0.02	411.281	799.138
			0.1	108.236	193.495
		Rottterdam - D 3.0m/s	0.3	56.1399	89.3719
			0.02	364.727	703.534
			0.1	96.1605	170.181
			0.3	52.1361	78.3324

Supplementary data for worst-case explosion scenarios

Path	Scenario	Weather	Overpressure level [bar]	Explosion flammable mass [kg]	Ignition time [s]	Ignition source [m]	Cloud centre [m]	Explosion centre [m]
Study\Study\Scenario group\Pressure vessel	Break	Rottterdam - B 3.0m/s	0.02	297.851	14.5677	29	7.42998	7.42998
			0.1	297.851	14.5677	29	7.42998	7.42998
			0.3	297.851	14.5677	29	7.42998	7.42998
			0.02	492.275	16.1035	31	7.41481	7.41481
			0.1	125.916	237.002	31	7.41481	7.41481
			0.3	61.9594	100.089	31	7.41481	7.41481
		Rottterdam - D 1.5m/s	0.02	411.281	799.138	39	11.5239	11.5239
			0.1	108.236	193.495	39	11.5239	11.5239
			0.3	56.1399	89.3719	39	11.5239	11.5239
		Rottterdam - D 3.0m/s	0.02	364.727	703.534	43	12.9699	12.9699
			0.1	96.1605	170.181	43	12.9699	12.9699
			0.3	52.1361	78.3324	43	12.9699	12.9699
		Rottterdam - D 9.0m/s	0.02	297.851	14.5677	29	7.42998	7.42998
			0.1	297.851	14.5677	29	7.42998	7.42998
			0.3	297.851	14.5677	29	7.42998	7.42998
			0.02	492.275	16.1035	31	7.41481	7.41481
			0.1	125.916	237.002	31	7.41481	7.41481
			0.3	61.9594	100.089	31	7.41481	7.41481
		Rottterdam - D 1.5m/s	0.02	411.281	799.138	39	11.5239	11.5239
			0.1	108.236	193.495	39	11.5239	11.5239
			0.3	56.1399	89.3719	39	11.5239	11.5239
		Rottterdam - D 3.0m/s	0.02	364.727	703.534	43	12.9699	12.9699
			0.1	96.1605	170.181	43	12.9699	12.9699
			0.3	52.1361	78.3324	43	12.9699	12.9699