Early Pool Fire Report

Workspace: 72438-4FSRUInvioGNL-12R

Study: Invio GNL Water

Equipment Item: 12R Manichette GNL riempimento FSRU

72438-4FSRUInvioGNL-12R\Invio GNL Water\12R Manichette GNL riempimento FSRU

Material	**GAS NATURALE**	
East	0	m
North	0	m

Scenario (Leak) : 60mm

72438-4FSRUInvioGNL-12R\Invio GNL Water\12R Manichette GNL riempimento FSRU\60mm

Weather: Category 2/F

Wind speed [m/s]	**2**
Pasquill stability	**F stable - night with moderate clouds and light/moderate wind**
Atmospheric temperature [degC]	**25**
Relative humidity [fraction]	**0,75**
Solar radiation flux [kW/m2]	0,5

Pool fire model results

Early pool fires are assumed to occur at a time when the initial PVAP rainout rate equals the pool fire burn rate, unless the thus calculated pool fire radius exceeds the maximum PVAP pool radius. For the latter case the early pool fire radius is assumed to be the maximum PVAP pool radius. The pool fire centre is located at the rainout point.

INPUT DATA

Correlation Type: Thomas / Johnson

Surface type	Water	
Pool fire elevation	0	m
Maximum exposure duration	20	s
Downwind distance of liquid rainout	0	m

Use two zone pool fire model	No	

OUTPUT DATA

Pool fire diameter	13,8507	m
Downwind distance of pool fire centre	0	m
Pool fire flame length	45,1442	m
Angle between pool fire axis and vertical	32,1619	deg
Flame emissive power	190,282	kW/m2
Total burn rate	31,1993	kg/s
Radiative fraction	0,259683	fraction

Radiation Intensity Ellipse Results

INPUT DATA

For ellipses 'observer direction' refers to whether inclination is 'fixed' or 'variable'. Orientation is always variable.

Observer direction	Variable	
Exposure duration	20	s
Height of interest	**1,7**	m

OUTPUT DATA

Radiation intensity

Incident radiation [kW/m2]	Lethality [%]	View factor	Probit	Dose [(W/m2)^ProbitN.s]	Hazard information	Ellipse half-length [m]	Ellipse half-width [m]	Ellipse centre downwind distance [m]	Effect downwind distance [m]	Ellipse area [m2]
3	0	0,0157661	-1,38321	865.119	-	86,2069	88,1149	16,0961	102,303	23863,9
5	0,00017	0,026	0,360	1.709.491	-	66,7	67,6	15,628	82,360	1417

	4704	2768	367			322	212	4	6	6,5
7	0,02405	0,0367875	1,50883	2.677.313	-	56,2965	56,2338	15,3414	71,6379	9945,55
12,5	6,52536	0,065692	3,48789	5.800.162	-	41,3035	39,7272	14,0011	55,3046	5154,95
37,5	98,7381	0,197076	7,23773	25.094.924	-	19,9214	18,2401	7,34354	27,265	1141,56

Radiation v Distance Results

INPUT DATA

Maximum distance	102,303	m
Angle from wind direction	0	deg
Observer direction	Variable	
Height of interest	**1,7**	m

OUTPUT DATA

Downwind distance [m]	Maximum incident radiation [kW/m2]	Lethality level [fraction]
0	190,282	1
2,08782	190,282	1
4,17563	190,282	1
6,26345	190,282	1
8,35127	166,514	1
10,4391	117,813	1
12,5269	92,4517	1
14,6147	76,8119	0,999999
16,7025	65,3939	0,999982
18,7904	57,148	0,999881
20,8782	50,7535	0,999464
22,966	45,4142	0,998082
25,0538	41,2315	0,994789
27,1416	37,6963	0,987951
29,2294	34,5749	0,975033
31,3173	32,0306	0,9554
33,4051	29,5056	0,922105

35,4929	27,1452	0,871764
37,5807	24,9732	0,802371
39,6685	22,9804	0,714392
41,7563	21,1528	0,611571
43,8442	19,4772	0,500688
45,932	17,9414	0,390269
48,0198	16,5346	0,288648
50,1076	15,2468	0,202114
52,1954	14,069	0,133821
54,2832	12,9926	0,0837651
56,3711	12,0095	0,0496
58,4589	11,1121	0,0278205
60,5467	10,2931	0,0148095
62,6345	9,5458	0,00749935
64,7223	8,86382	0,00362208
66,8101	8,24126	0,0016733
68,898	7,67266	0,000741559
70,9858	7,15301	0,000316202
73,0736	6,67771	0,000130109
75,1614	6,24258	5,18109E-05
77,2492	5,84381	2,00221E-05
79,337	5,47798	7,5287E-06
81,4249	5,14196	2,7615E-06
83,5127	4,83294	9,90398E-07
85,6005	4,54841	3,48077E-07
87,6883	4,28609	1,20126E-07
89,7761	4,05078	4,21151E-08
91,8639	3,84408	1,54252E-08
93,9518	3,65141	0
96,0396	3,47163	0
98,1274	3,30374	0
100,215	3,1468	0
102,303	2,99995	0

Weather: Category 5/D

Wind speed [m/s]	**5**
Pasquill stability	**D neutral - little sun and high wind or overcast/windy night**
Atmospheric temperature [degC]	25
Relative humidity [fraction]	0,75
Solar radiation flux [kW/m2]	0,5

Pool fire model results

Early pool fires are assumed to occur at a time when the initial PVAP rainout rate equals the pool fire burn rate, unless the thus calculated pool fire radius exceeds the maximum PVAP pool radius. For the latter case the early pool fire radius is assumed to be the maximum PVAP pool radius. The pool fire centre is located at the rainout point.

INPUT DATA

Correlation Type: Thomas / Johnson

Surface type	Water	
Pool fire elevation	0	m
Maximum exposure duration	20	s
Downwind distance of liquid rainout	0	m
Use two zone pool fire model	No	

OUTPUT DATA

Pool fire diameter	13,8507	m
Downwind distance of pool fire centre	0	m
Pool fire flame length	45,1442	m
Angle between pool fire axis and vertical	49,4554	deg
Flame emissive power	190,282	kW/m2
Total burn rate	31,1993	kg/s
Radiative fraction	0,259683	fraction

Radiation Intensity Ellipse Results

INPUT DATA

For ellipses 'observer direction' refers to whether inclination is 'fixed' or 'variable'. Orientation is always variable.

Observer direction	Variable	
Exposure duration	20	s
Height of interest	**1,7**	m

OUTPUT DATA

Radiation intensity

Incident radiation [kW/m2]	Lethality [%]	View factor	Probit	Dose [(W/m2)^ProbitN.s]	Hazard information	Ellipse half-length [m]	Ellipse half-width [m]	Ellipse centre downwind distance [m]	Effect downwind distance [m]	Ellipse area [m2]
3	0	0,0157661	-1,38321	865.119	-	82,817	86,8335	22,7653	105,582	22592,1
5	0,000174704	0,0262768	0,360367	1.709.491	-	65,3168	67,3618	22,0355	87,3522	13822,6
7	0,02405	0,0367875	1,50883	2.677.313	-	55,7935	56,589	21,2725	77,066	9918,95
12,5	6,52536	0,065692	3,48789	5.800.162	-	42,509	40,984	19,4315	61,9405	5473,24
37,5	98,7381	0,197076	7,23773	25.094.924	-	23,3868	19,706	12,0013	35,388	1447,83

Radiation v Distance Results

INPUT DATA

Maximum distance	105,582	m
Angle from wind direction	0	deg
Observer direction	Variable	
Height of interest	**1,7**	m

OUTPUT DATA

Downwind distance [m]	Maximum incident radiation [kW/m2]	Lethality level [fraction]
0	190,282	1
2,15474	190,282	1
4,30948	190,282	1
6,46423	190,282	1
8,61897	190,282	1
10,7737	125,577	1
12,9285	103,234	1
15,0832	88,5857	1
17,2379	74,5115	0,999998
19,3927	69,1601	0,999992
21,5474	62,0584	0,999962
23,7022	56,4657	0,999861
25,8569	51,6939	0,999571
28,0116	47,7209	0,998895
30,1664	44,2167	0,997446
32,3211	41,1917	0,99474
34,4759	38,5632	0,99018
36,6306	36,2358	0,983026
38,7854	34,1484	0,972455
40,9401	32,2513	0,957563
43,0948	30,0443	0,930713
45,2496	27,5475	0,881989
47,4043	25,0764	0,80626
49,5591	22,7205	0,701056
51,7138	20,5209	0,57138
53,8685	18,497	0,430729
56,0233	16,6554	0,297198
58,178	14,994	0,186419
60,3328	13,5047	0,105974
62,4875	12,1762	0,0546114
64,6423	10,9949	0,0255863
66,797	10,1244	0,0128228
68,9517	9,35009	0,00615527

71,1065	8,6431	0,00279016
73,2612	7,99896	0,00119942
75,416	7,41278	0,00049111
77,5707	6,87961	0,000192375
79,7254	6,39461	7,2398E-05
81,8802	5,95323	2,62828E-05
84,0349	5,55122	9,23931E-06
86,1897	5,18467	3,15625E-06
88,3444	4,85004	1,05122E-06
90,4992	4,54414	3,42379E-07
92,6539	4,26409	1,09347E-07
94,8086	4,00731	3,43305E-08
96,9634	3,77149	1,06196E-08
99,1181	3,55459	0
101,273	3,35476	0
103,428	3,17037	0
105,582	2,99997	0

Scenario (Leak) : 300mm

72438-4FSRUInvioGNL-12R\Invio GNL Water\12R Manichette GNL riempimento FSRU\300mm

Weather: Category 2/F

Wind speed [m/s]	**2**
Pasquill stability	**F stable - night with moderate clouds and light/moderate wind**
Atmospheric temperature [degC]	**25**
Relative humidity [fraction]	**0,75**
Solar radiation flux [kW/m2]	0,5

Pool fire model results

Early pool fires are assumed to occur at a time when the initial PVAP rainout rate equals the pool fire burn rate, unless the thus calculated pool fire radius exceeds the maximum PVAP pool radius. For the latter case the early pool fire radius is assumed to be the maximum PVAP pool radius. The pool fire centre is located at the rainout point.

INPUT DATA

Correlation Type: Thomas / Johnson

Surface type	Water	
Pool fire elevation	0	m
Maximum exposure duration	20	s
Downwind distance of liquid rainout	0	m
Use two zone pool fire model	No	

OUTPUT DATA

Pool fire diameter	69,2537	m
Downwind distance of pool fire centre	0	m
Pool fire flame length	151,886	m
Angle between pool fire axis and vertical	22,3491	deg
Flame emissive power	214,335	kW/m2
Total burn rate	910,991	kg/s
Radiative fraction	0,174358	fraction

Radiation Intensity Ellipse Results

INPUT DATA

For ellipses 'observer direction' refers to whether inclination is 'fixed' or 'variable'. Orientation is always variable.

Observer direction	Variable	
Exposure duration	20	s
Height of interest	**1,7**	m

OUTPUT DATA

Radiation intensity

Incident radiation [kW/m2]	Lethality [%]	View factor	Probit	Dose [(W/m2)^ProbitN.s]	Hazard information	Ellipse half-length [m]	Ellipse half-width [m]	Ellipse centre downwind distance [m]	Effect downwind distance [m]	Ellipse area [m2]
3	0	0,0139968	-1,38321	865.119	-	352,122	356,043	41,0128	393,135	393863
5	0,000174704	0,0233279	0,360367	1.709.491	-	274,845	276,053	41,2596	316,105	238358
7	0,02405	0,0326591	1,50883	2.677.313	-	231,835	231,415	40,7824	272,617	168547
12,5	6,52536	0,0583199	3,48789	5.800.162	-	169,374	166,304	38,1143	207,488	88490,9
37,5	98,7381	0,17496	7,23773	25.094.924	-	82,1987	77,641	22,5289	104,728	20049,6

Radiation v Distance Results

INPUT DATA

Maximum distance	393,135	m
Angle from wind direction	0	deg
Observer direction	Variable	

Height of interest	**1,7**	m

OUTPUT DATA

Downwind distance [m]	Maximum incident radiation [kW/m2]	Lethality level [fraction]
0	214,335	1
8,02316	214,335	1
16,0463	214,335	1
24,0695	214,335	1
32,0926	214,335	1
40,1158	131,223	1
48,139	95,513	1
56,1621	78,1593	0,999999
64,1853	66,5531	0,999986
72,2084	57,9702	0,999902
80,2316	51,3493	0,999534
88,2548	46,0207	0,998341
96,2779	41,6178	0,995248
104,301	37,6946	0,987946
112,324	34,2436	0,973052
120,347	31,1908	0,946186
128,371	28,4726	0,902808
136,394	26,0385	0,839573
144,417	23,8495	0,755836
152,44	21,8744	0,654652
160,463	20,0883	0,542671
168,486	18,4705	0,428804
176,51	17,0035	0,322085
184,533	15,6723	0,229608
192,556	14,4636	0,155267
200,579	13,3653	0,0996352
208,602	12,367	0,0607377
216,625	11,4589	0,0352317
224,648	10,6323	0,0194866

232,672	9,87932	0,0103012
240,695	9,19274	0,00521788
248,718	8,56609	0,00253918
256,741	7,99356	0,00119027
264,764	7,46986	0,000538892
272,787	6,99026	0,000236256
280,811	6,55049	0,000100548
288,834	6,14673	4,16405E-05
296,857	5,77554	1,68188E-05
304,88	5,43384	6,63965E-06
312,903	5,11887	2,56711E-06
320,926	4,82814	9,73896E-07
328,95	4,55943	3,63177E-07
336,973	4,31073	1,33345E-07
344,996	4,08025	4,8278E-08
353,019	3,86638	1,72605E-08
361,042	3,66766	0
369,065	3,48278	0
377,088	3,31057	0
385,112	3,14996	0
393,135	3	0

Weather: Category 5/D

Wind speed [m/s]	**5**
Pasquill stability	**D neutral - little sun and high wind or overcast/windy night**
Atmospheric temperature [degC]	25
Relative humidity [fraction]	0,75
Solar radiation flux [kW/m2]	0,5

Pool fire model results

Early pool fires are assumed to occur at a time when the initial PVAP rainout rate equals the pool fire burn rate, unless the thus calculated pool fire radius exceeds the maximum PVAP pool radius. For the latter case the early pool fire radius is assumed to be the maximum PVAP pool radius. The pool fire centre is located at the rainout point.

INPUT DATA

Correlation Type: Thomas / Johnson

Surface type	Water	
Pool fire elevation	0	m
Maximum exposure duration	20	s
Downwind distance of liquid rainout	0	m
Use two zone pool fire model	No	

OUTPUT DATA

Pool fire diameter	69,2537	m
Downwind distance of pool fire centre	0	m
Pool fire flame length	151,886	m
Angle between pool fire axis and vertical	39,6478	deg
Flame emissive power	214,335	kW/m2
Total burn rate	910,991	kg/s
Radiative fraction	0,174358	fraction

Radiation Intensity Ellipse Results

INPUT DATA

For ellipses 'observer direction' refers to whether inclination is 'fixed' or 'variable'. Orientation is always variable.

Observer direction	Variable	
Exposure duration	20	s
Height of interest	**1,7**	m

OUTPUT DATA

Radiation intensity

Incident radiation [kW/m2]	Lethality [%]	View factor	Probit	Dose [(W/m2)^ProbitN.s]	Hazard information	Ellipse half-length [m]	Ellipse half-width [m]	Ellipse centre down wind distance [m]	Effect down wind distance [m]	Ellipse area [m2]
3	0	0,0139968	-1,38321	865.119	-	339,825	353,018	67,6212	407,447	376880
5	0,000174704	0,0233279	0,360367	1.709.491	-	266,952	276,223	65,9762	332,928	231656
7	0,02405	0,0326591	1,50883	2.677.313	-	226,675	233,541	64,1079	290,783	166309
12,5	6,52536	0,0583199	3,48789	5.800.162	-	171,239	171,561	61,2472	232,486	92293,6
37,5	98,7381	0,17496	7,23773	25.094.924	-	93,5476	84,6374	41,9957	135,543	24873,9

Radiation v Distance Results

INPUT DATA

Maximum distance	407,447	m
Angle from wind direction	0	deg
Observer direction	Variable	
Height of interest	**1,7**	m

OUTPUT DATA

Downwind distance [m]	Maximum incident radiation [kW/m2]	Lethality level [fraction]
0	214,335	1
8,31524	214,335	1
16,6305	214,335	1
24,9457	214,335	1
33,2609	214,335	1
41,5762	133,801	1
49,8914	105,44	1
58,2067	89,5034	1
66,5219	77,9943	0,999999
74,8371	69,433	0,999993
83,1524	62,3391	0,999964
91,4676	56,511	0,999862
99,7828	51,853	0,999587
108,098	47,7828	0,998911
116,413	44,2812	0,997485
124,729	40,9755	0,994461
133,044	38,3815	0,989749
141,359	35,3894	0,979325
149,674	32,4093	0,959049
157,989	29,5683	0,923154
166,305	26,9074	0,865363
174,62	24,4431	0,781385
182,935	22,1802	0,671947
191,25	20,1167	0,544585
199,566	18,2456	0,412453
207,881	16,5565	0,290196
216,196	15,0371	0,189058
224,511	13,6737	0,113951
232,827	12,4524	0,0636131
241,142	11,3593	0,0329784
249,457	10,3813	0,015936
257,772	9,50605	0,00720951
266,088	8,72216	0,00306825

274,403	8,05734	0,00130195
282,718	7,49695	0,000562908
291,033	6,98525	0,000234102
299,349	6,51777	9,39614E-05
307,664	6,09036	3,6514E-05
315,979	5,69919	1,37801E-05
324,294	5,3408	5,06476E-06
332,609	5,01204	1,81775E-06
340,925	4,71006	6,38617E-07
349,24	4,4323	2,20123E-07
357,555	4,17647	7,45956E-08
365,87	3,94049	2,4901E-08
374,186	3,72253	8,20232E-09
382,501	3,52091	0
390,816	3,33415	0
399,131	3,16091	0
407,447	2,99999	0

Scenario (User defined source) : 300mm-Q63,6

72438-4FSRUInvioGNL-12R\Invio GNL Water\12R Manichette GNL riempimento FSRU\300mm-Q63,6

Weather: Category 2/F

Wind speed [m/s]	**2**
Pasquill stability	**F stable - night with moderate clouds and light/moderate wind**
Atmospheric temperature [degC]	**25**
Relative humidity [fraction]	**0,75**
Solar radiation flux [kW/m2]	0,5

Pool fire model results

Early pool fires are assumed to occur at a time when the initial PVAP rainout rate equals the pool fire burn rate, unless the thus calculated pool fire radius exceeds the maximum PVAP pool radius. For the latter case the early pool fire radius is assumed to be the maximum PVAP pool radius. The pool fire centre is located at the rainout point.

INPUT DATA

Correlation Type: Thomas / Johnson

Surface type	Water	
Pool fire elevation	0	m
Maximum exposure duration	20	s
Downwind distance of liquid rainout	0	m
Use two zone pool fire model	No	

OUTPUT DATA

Pool fire diameter	18,2979	m
Downwind distance of pool fire centre	0	m
Pool fire flame length	57,3473	m
Angle between pool fire axis and vertical	30,3836	deg
Flame emissive power	202,419	kW/m2
Total burn rate	58,6905	kg/s
Radiative fraction	0,247143	fraction

Radiation Intensity Ellipse Results

INPUT DATA

For ellipses 'observer direction' refers to whether inclination is 'fixed' or 'variable'. Orientation is always variable.

Observer direction	Variable	
Exposure duration	20	s
Height of interest	**1,7**	m

OUTPUT DATA

Radiation intensity

Incident radiation [kW/m2]	Lethality [%]	View factor	Probit	Dose [(W/m2)^ProbitN.s]	Hazard information	Ellipse half-length [m]	Ellipse half-width [m]	Ellipse centre downwind distance [m]	Effect downwind distance [m]	Ellipse area [m2]
3	0	0,0148207	-1,38321	865.119	-	113,738	116,088	19,6345	133,372	41480,4
5	0,000174704	0,0247012	0,360367	1.709.491	-	88,1424	89,2117	19,2395	107,382	24703,4
7	0,02405	0,0345817	1,50883	2.677.313	-	74,2782	74,2661	18,9139	93,1921	17330,1
12,5	6,52536	0,061753	3,48789	5.800.162	-	54,3314	52,5809	17,3491	71,6806	8974,9
37,5	98,7381	0,185259	7,23773	25.094.924	-	26,1843	24,0671	9,37405	35,5584	1979,77

Radiation v Distance Results

INPUT DATA

Maximum distance	133,372	m
Angle from wind direction	0	deg
Observer direction	Variable	

Height of interest	**1,7**	m

OUTPUT DATA

Downwind distance [m]	Maximum incident radiation [kW/m2]	Lethality level [fraction]
0	202,419	1
2,72188	202,419	1
5,44376	202,419	1
8,16564	202,419	1
10,8875	167,222	1
13,6094	117,257	1
16,3313	92,0691	1
19,0532	76,1318	0,999998
21,775	65,3204	0,999982
24,4969	57	0,999877
27,2188	50,6501	0,99945
29,9407	45,5523	0,998144
32,6626	41,1501	0,994687
35,3844	37,7188	0,988014
38,1063	34,6943	0,975712
40,8282	31,8919	0,953989
43,5501	29,2706	0,91805
46,272	26,8762	0,864505
48,9938	24,6929	0,791488
51,7157	22,7008	0,700031
54,4376	20,8816	0,594591
57,1595	19,2194	0,482551
59,8814	17,7004	0,372678
62,6032	16,3126	0,273099
65,3251	15,045	0,189549
68,047	13,8879	0,124509
70,7689	12,8318	0,0774153
73,4908	11,8685	0,0456039
76,2126	10,9897	0,0254919

78,9345	10,1883	0,0135493
81,6564	9,45706	0,00686426
84,3783	8,78977	0,00332337
87,1002	8,18047	0,00154201
89,822	7,62377	0,000687647
92,5439	7,1147	0,000295567
95,2658	6,64876	0,000122796
97,9877	6,22187	4,9447E-05
100,71	5,83032	1,93495E-05
103,431	5,47077	7,37667E-06
106,153	5,1402	2,74628E-06
108,875	4,8359	1,00067E-06
111,597	4,55541	3,5761E-07
114,319	4,29655	1,25587E-07
117,041	4,05733	4,34193E-08
119,763	3,83671	1,48592E-08
122,485	3,64585	0
125,206	3,46771	0
127,928	3,30127	0
130,65	3,14562	0
133,372	2,99992	0

Weather: Category 5/D

Wind speed [m/s]	**5**
Pasquill stability	**D neutral - little sun and high wind or overcast/windy night**
Atmospheric temperature [degC]	25
Relative humidity [fraction]	0,75
Solar radiation flux [kW/m2]	0,5

Pool fire model results

Early pool fires are assumed to occur at a time when the initial PVAP rainout rate equals the pool fire burn rate, unless the thus calculated pool fire radius exceeds the maximum PVAP pool radius. For the latter case the early pool fire radius is assumed to be the maximum PVAP pool radius. The pool fire centre is located at the rainout point.

INPUT DATA

Correlation Type: Thomas / Johnson

Surface type	Water	
Pool fire elevation	0	m
Maximum exposure duration	20	s
Downwind distance of liquid rainout	0	m
Use two zone pool fire model	No	

OUTPUT DATA

Pool fire diameter	18,2979	m
Downwind distance of pool fire centre	0	m
Pool fire flame length	57,3473	m
Angle between pool fire axis and vertical	47,8413	deg
Flame emissive power	202,419	kW/m2
Total burn rate	58,6905	kg/s
Radiative fraction	0,247143	fraction

Radiation Intensity Ellipse Results

INPUT DATA

For ellipses 'observer direction' refers to whether inclination is 'fixed' or 'variable'. Orientation is always variable.

Observer direction	Variable	
Exposure duration	20	s
Height of interest	**1,7**	m

OUTPUT DATA

Radiation intensity

Incident radiation [kW/m2]	Lethality [%]	View factor	Probit	Dose [(W/m2)^ProbitN.s]	Hazard information	Ellipse half-length [m]	Ellipse half-width [m]	Ellipse centre down wind distance [m]	Effect down wind distance [m]	Ellipse area [m2]
3	0	0,0148207	-1,38321	865.119	-	109,287	114,527	28,5759	137,863	39321,5
5	0,000174704	0,0247012	0,360367	1.709.491	-	86,0238	88,9501	27,7086	113,732	24038,9
7	0,02405	0,0345817	1,50883	2.677.313	-	73,3237	74,7918	26,785	100,109	17228,5
12,5	6,52536	0,061753	3,48789	5.800.162	-	55,6396	54,2762	24,6296	80,2692	9487,3
37,5	98,7381	0,185259	7,23773	25.094.924	-	30,657	26,1115	15,6582	46,3151	2514,85

Radiation v Distance Results

INPUT DATA

Maximum distance	137,863	m
Angle from wind direction	0	deg
Observer direction	Variable	
Height of interest	**1,7**	m

OUTPUT DATA

Downwind distance [m]	Maximum incident radiation [kW/m2]	Lethality level [fraction]
0	202,419	1
2,81354	202,419	1
5,62708	202,419	1
8,44062	202,419	1
11,2542	202,419	1
14,0677	124,728	1
16,8812	103,392	1
19,6948	88,0713	1
22,5083	75,3275	0,999998
25,3219	69,0765	0,999992
28,1354	62,1734	0,999963
30,9489	56,8119	0,999872
33,7625	51,7347	0,999575
36,576	47,9176	0,998946
39,3895	44,5533	0,997643
42,2031	41,3338	0,994915
45,0166	38,4772	0,989978
47,8302	36,3123	0,983326
50,6437	34,3195	0,973519
53,4572	32,0096	0,95519
56,2708	29,4193	0,920637
59,0843	26,8365	0,863402
61,8979	24,3655	0,778171
64,7114	22,0513	0,664725
67,5249	19,915	0,530923
70,3385	17,9644	0,391946
73,152	16,1985	0,265188
75,9656	14,6103	0,163629
78,7791	13,189	0,0919282
81,5926	11,9215	0,047081
84,4062	10,7938	0,0220563
87,2197	9,93301	0,0108182
90,0332	9,1826	0,00516158

92,8468	8,49793	0,00233256
95,6603	7,87415	0,00100248
98,4739	7,30626	0,000411455
101,287	6,78933	0,000161941
104,101	6,31864	6,13628E-05
106,914	5,88978	2,24706E-05
109,728	5,49865	7,98046E-06
112,542	5,14155	2,75794E-06
115,355	4,81508	9,30278E-07
118,169	4,51622	3,07138E-07
120,982	4,24222	9,9509E-08
123,796	3,99063	3,17116E-08
126,609	3,75927	9,9615E-09
129,423	3,54618	0
132,236	3,34961	0
135,05	3,168	0
137,863	2,99996	0