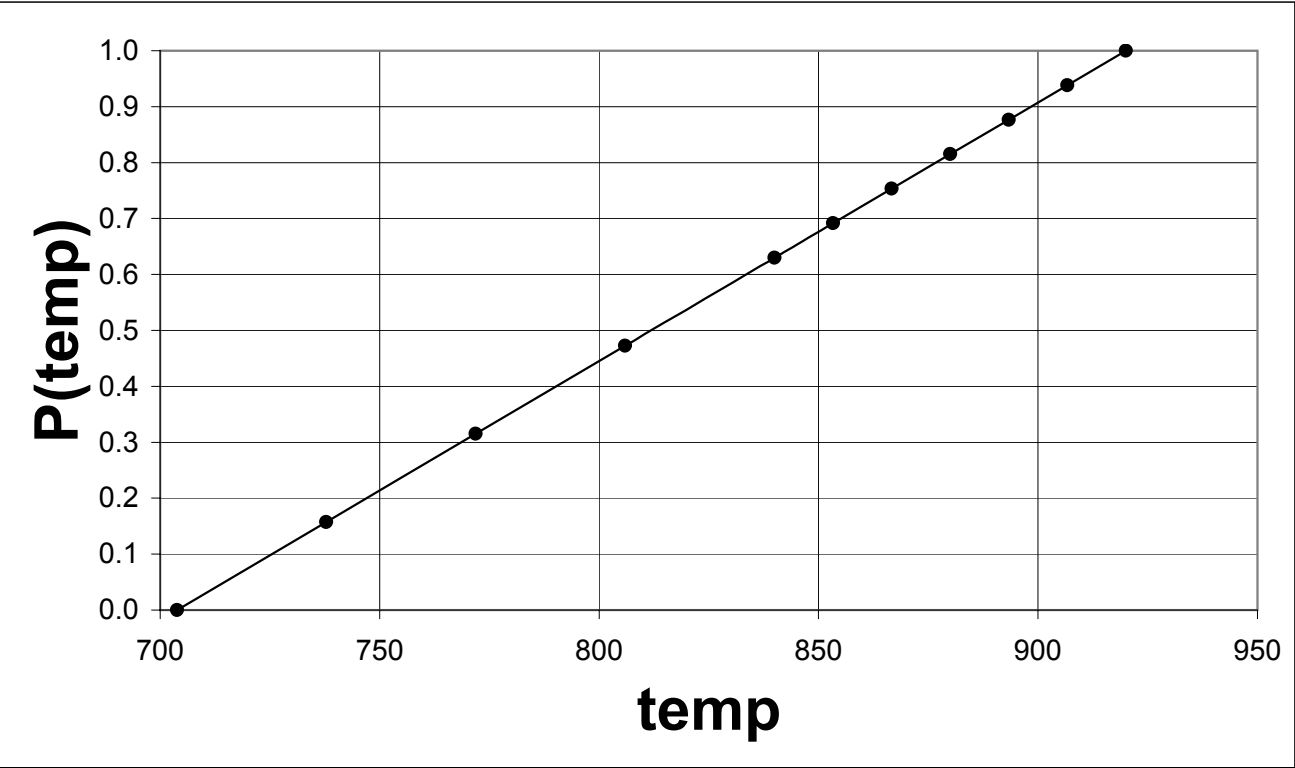
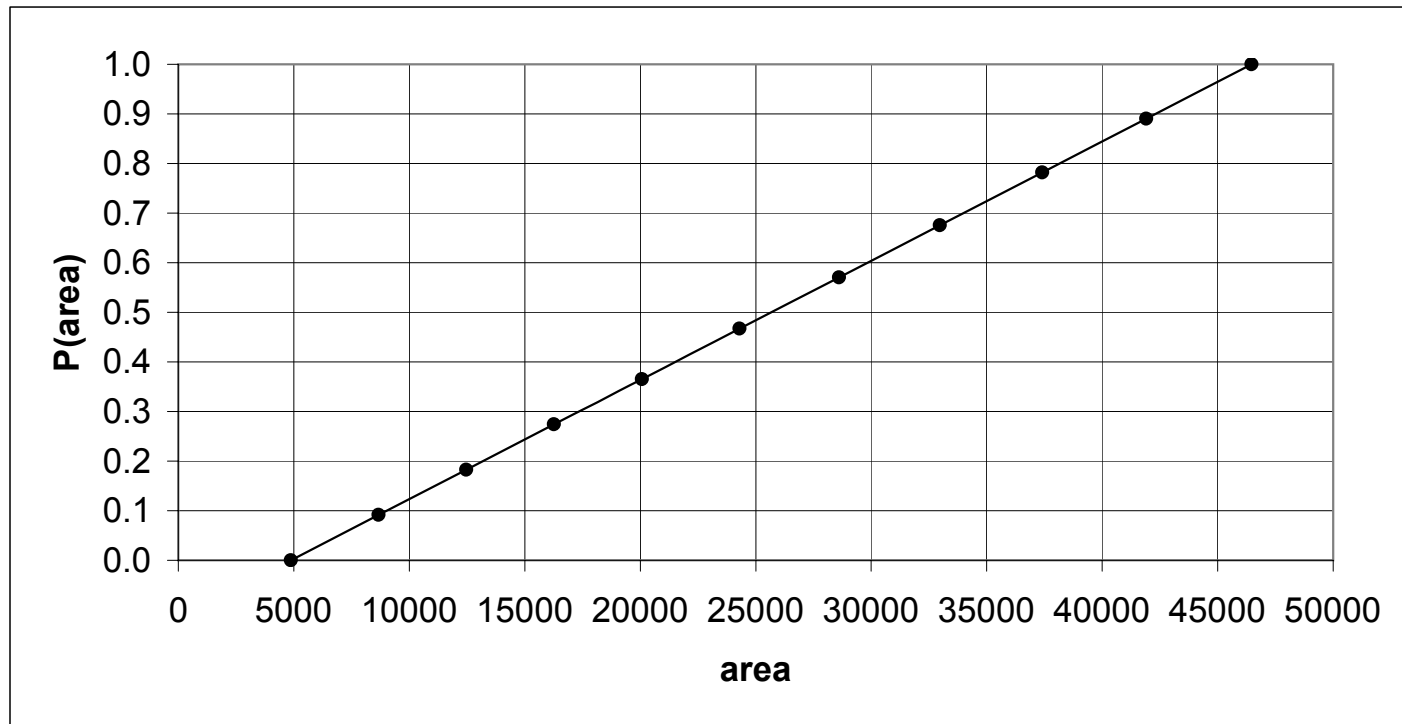


ATSM-E119 FIRE

time (min)	temp (°C)	T=f(t) [t<60]	Area	P(temp)	P(area)
0.00	0.00	25.00		4.72E-01	2.74E-01
6.50	680.00	680.00	2210.00		
30.00	840.00	125.96	14060.00		
60.00	920.00	0.00	0.00		
		805.96	16270.00		

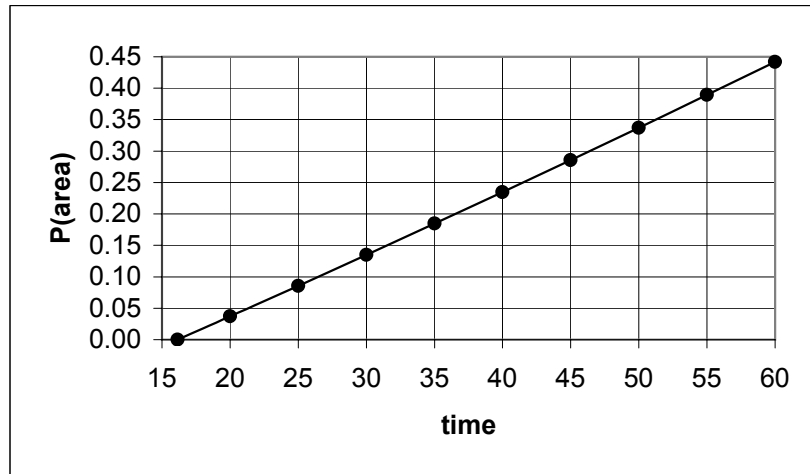
time (min)	temp (°C)	P(temp)	Area	P(area)
10	703.83	0.000	4870.00	0.000
15	737.87	0.157	8670.00	0.091
20	771.91	0.315	12470.00	0.183
25	805.96	0.472	16270.00	0.274
30	840.00	0.630	20070.00	0.365
35	853.33	0.692	24303.33	0.467
40	866.67	0.753	28603.33	0.571
45	880.00	0.815	32970.00	0.675
50	893.33	0.877	37403.33	0.782
55	906.67	0.938	41903.33	0.890
60	920.00	1.000	46470.00	1.000



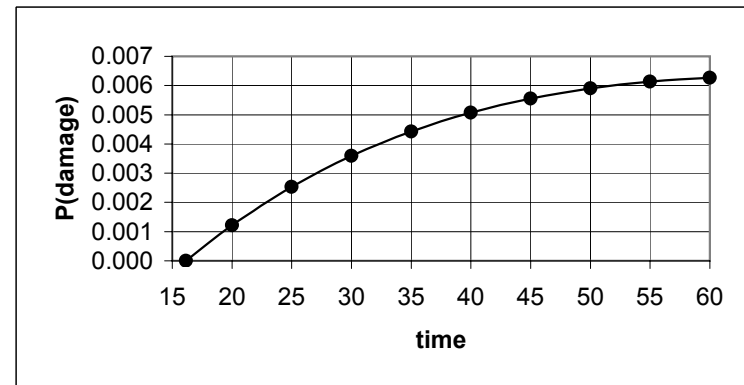
**EDG OIL FIRE**

time (min)	temp (°C)	T=f(t) [t<60]	Area
0.00	0.00	43.85	
7.50	390.00	390.00	1462.50
60.00	440.00	34.62	14805.70
		424.62	16268.20

time (min)	Area	P(area)
16.15	4871.63	0.000
20	6411.90	0.037
25	8433.33	0.086
30	10478.57	0.135
35	12547.62	0.185
40	14640.48	0.235
45	16757.14	0.286
50	18897.62	0.337
55	21061.90	0.389
60	23250.00	0.442

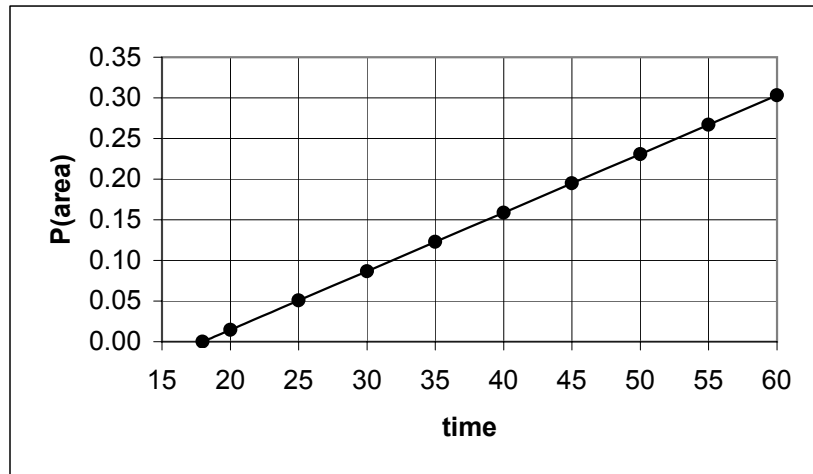


time (min)	Area	P(area)	PNS(man)	P(damage)
16.15	4871.63	0.000	0.0356	0.00E+00
20	6411.90	0.037	0.0329	1.22E-03
25	8433.33	0.086	0.0296	2.53E-03
30	10478.57	0.135	0.0266	3.59E-03
35	12547.62	0.185	0.0240	4.42E-03
40	14640.48	0.235	0.0216	5.07E-03
45	16757.14	0.286	0.0194	5.55E-03
50	18897.62	0.337	0.0175	5.90E-03
55	21061.90	0.389	0.0158	6.13E-03
60	23250.00	0.442	0.0142	6.27E-03

**ELEC SWGR FIRE**

time (min)	temp (°C)	T=f(t) [t<60]	Area
0.00	0.00	55.98	
3.50	300.00	300.00	525.00
60.00	300.00	0.00	15744.00
		300.00	16269.00

time (min)	Area	P(area)
17.98	4869.00	0.000
20	5475.00	0.015
25	6975.00	0.051
30	8475.00	0.087
35	9975.00	0.123
40	11475.00	0.159
45	12975.00	0.195
50	14475.00	0.231
55	15975.00	0.267
60	17475.00	0.303

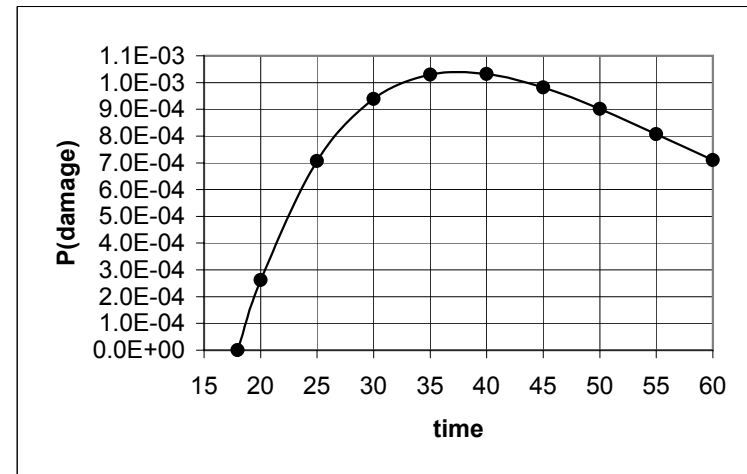


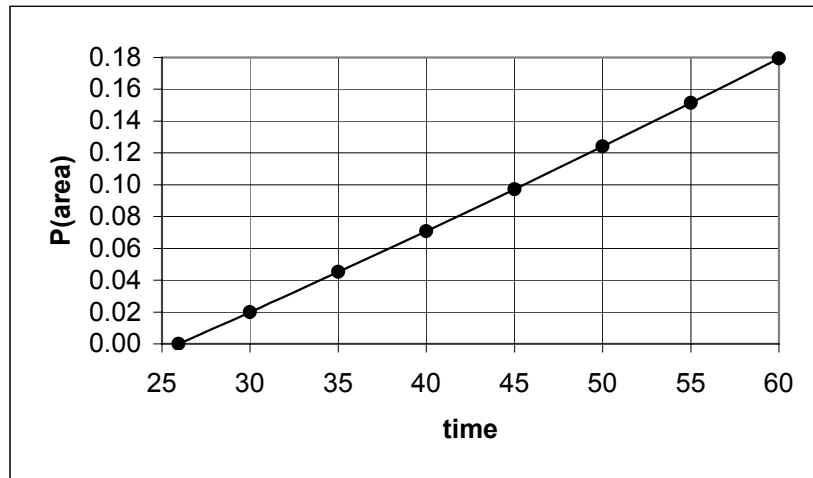
time (min)	Area	P(area)	PNS(man)	P(damage)
17.98	4869.00	0.000	0.0200	0.00E+00
20	5475.00	0.015	0.0180	2.62E-04
25	6975.00	0.051	0.0140	7.07E-04
30	8475.00	0.087	0.0108	9.38E-04
35	9975.00	0.123	0.0084	1.03E-03
40	11475.00	0.159	0.0065	1.03E-03
45	12975.00	0.195	0.0050	9.82E-04
50	14475.00	0.231	0.0039	9.01E-04
55	15975.00	0.267	0.0030	8.08E-04
60	17475.00	0.303	0.0023	7.10E-04

MU PUMP ROOM FIRE

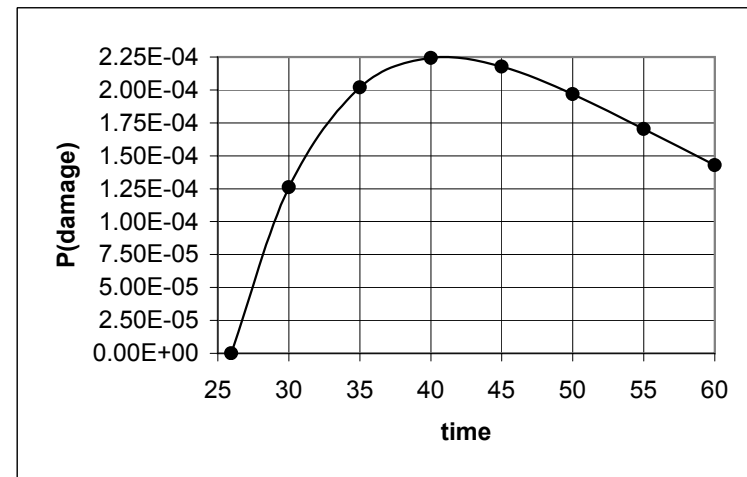
time (min)	temp (°C)	T=f(t) [t<60]	Area
0.00	0.00	60.00	
1.00	180.00	180.00	90.00
60.00	235.00	55.00	12242.50
		235.00	12332.50

time (min)	Area	P(area)
25.94	4869.12	0.000
30	5701.99	0.020
35	6748.81	0.045
40	7818.94	0.071
45	8912.37	0.097
50	10029.11	0.124
55	11169.15	0.151
60	12332.50	0.179





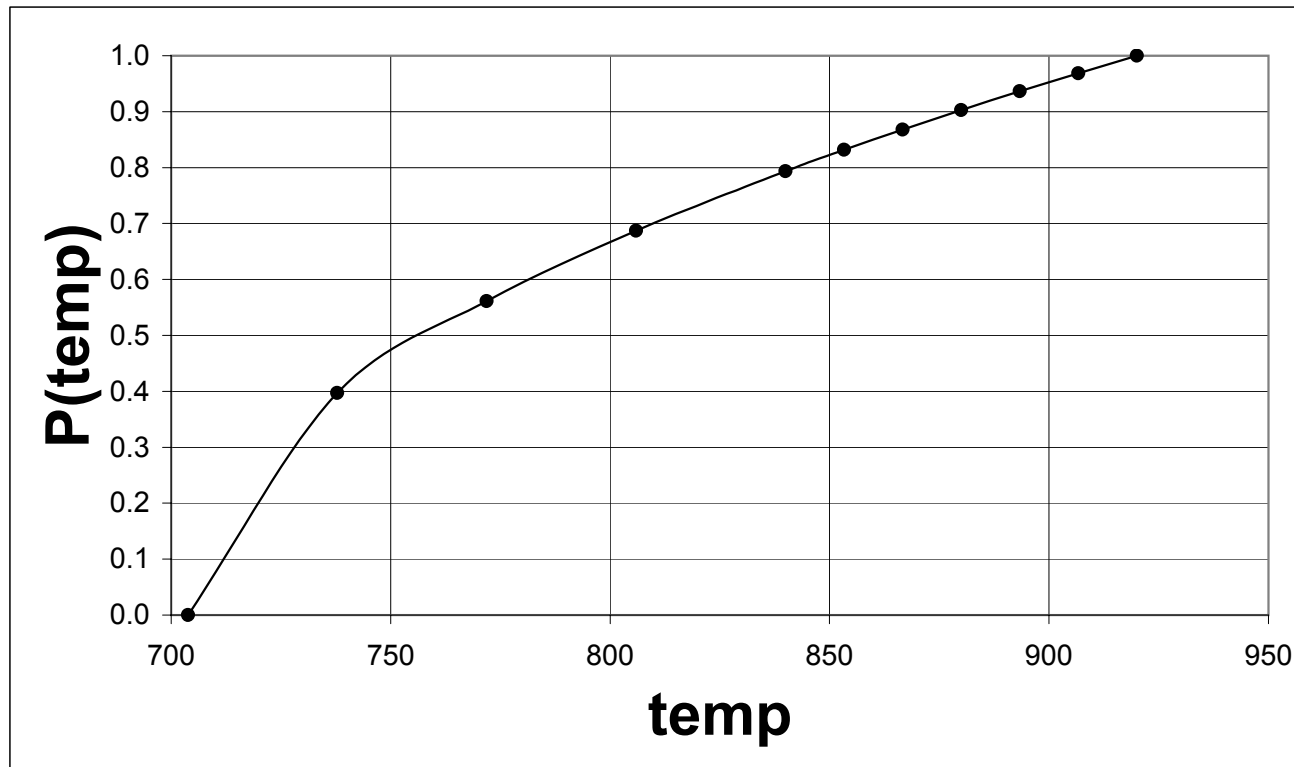
time (min)	Area	P(area)	PNS(man)	P(damage)
25.94	4869.12	0.000	0.00835	0.00E+00
30	5701.99	0.020	0.00631	1.26E-04
35	6748.81	0.045	0.00447	2.02E-04
40	7818.94	0.071	0.00316	2.24E-04
45	8912.37	0.097	0.00224	2.18E-04
50	10029.11	0.124	0.00159	1.97E-04
55	11169.15	0.151	0.00112	1.70E-04
60	12332.50	0.179	0.00080	1.43E-04

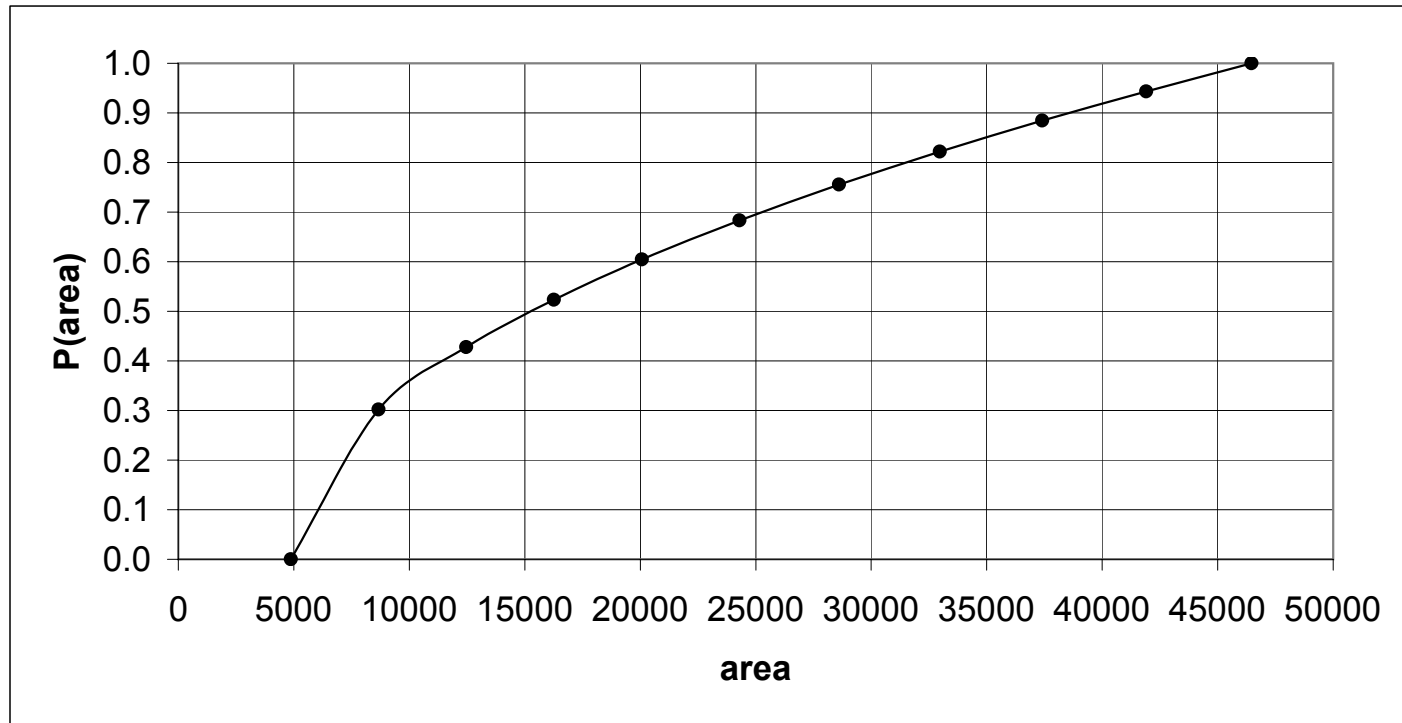


ATSM-E119 FIRE

time (min)	temp (°C)	T=f(t) [t<60]	Area	P(temp)	P(area)
0.00	0.00	25.00		6.87E-01	5.23E-01
6.50	680.00	680.00	2210.00		
30.00	840.00	125.96	14060.00		
60.00	920.00	0.00	0.00		
		805.96	16270.00		

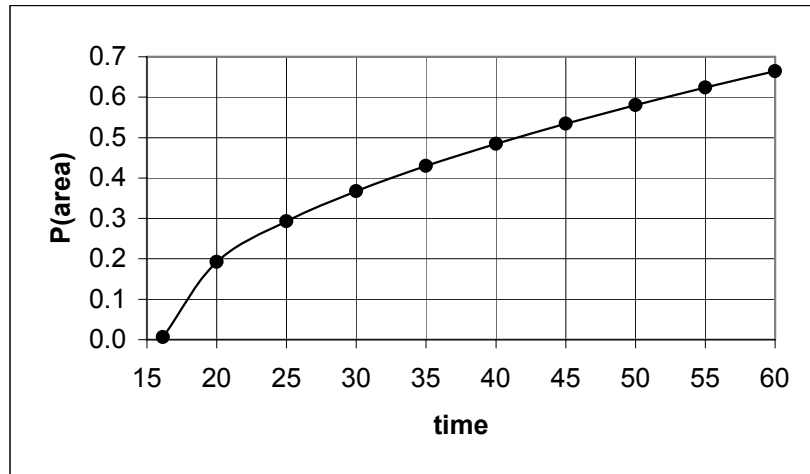
time (min)	temp (°C)	P(temp)	Area	P(area)
10	703.83	0.000	4870.00	0.000
15	737.87	0.397	8670.00	0.302
20	771.91	0.561	12470.00	0.427
25	805.96	0.687	16270.00	0.523
30	840.00	0.794	20070.00	0.604
35	853.33	0.832	24303.33	0.683
40	866.67	0.868	28603.33	0.755
45	880.00	0.903	32970.00	0.822
50	893.33	0.936	37403.33	0.884
55	906.67	0.969	41903.33	0.944
60	920.00	1.000	46470.00	1.000



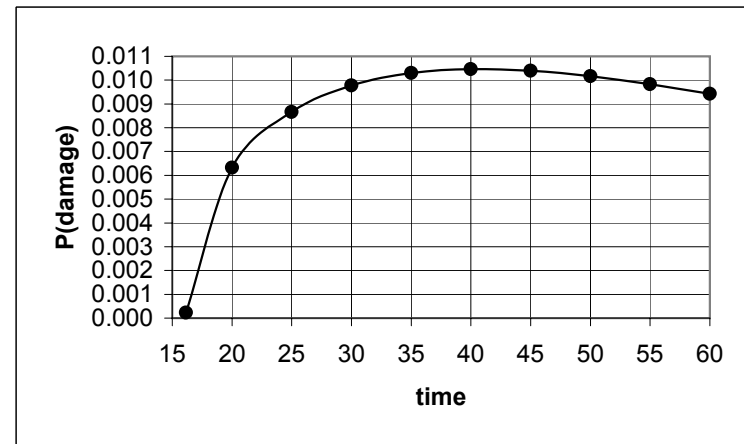
**EDG OIL FIRE**

time (min)	temp (°C)	T=f(t) [t<60]	Area
0.00	0.00	43.85	
7.50	390.00	390.00	1462.50
60.00	440.00	34.62	14805.70
		424.62	16268.20

time (min)	Area	P(area)
16.15	4871.63	0.006
20	6411.90	0.193
25	8433.33	0.293
30	10478.57	0.367
35	12547.62	0.430
40	14640.48	0.485
45	16757.14	0.535
50	18897.62	0.581
55	21061.90	0.624
60	23250.00	0.665

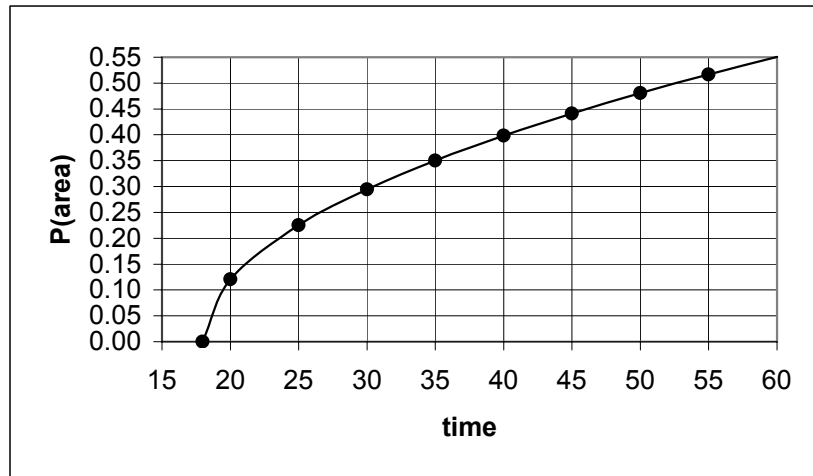


time (min)	Area	P(area)	PNS(man)	P(damage)
16.15	4871.63	0.006	0.0356	2.23E-04
20	6411.90	0.193	0.0329	6.32E-03
25	8433.33	0.293	0.0296	8.66E-03
30	10478.57	0.367	0.0266	9.78E-03
35	12547.62	0.430	0.0240	1.03E-02
40	14640.48	0.485	0.0216	1.05E-02
45	16757.14	0.535	0.0194	1.04E-02
50	18897.62	0.581	0.0175	1.02E-02
55	21061.90	0.624	0.0158	9.83E-03
60	23250.00	0.665	0.0142	9.43E-03

**ELEC SWGR FIRE**

time (min)	temp (°C)	T=f(t) [t<60]	Area
0.00	0.00	55.98	
3.50	300.00	300.00	525.00
60.00	300.00	0.00	15744.00
		300.00	16269.00

time (min)	Area	P(area)
17.98	4870.00	0.000
20	5475.00	0.121
25	6975.00	0.225
30	8475.00	0.294
35	9975.00	0.350
40	11475.00	0.398
45	12975.00	0.441
50	14475.00	0.481
55	15975.00	0.517
60	17475.00	0.550

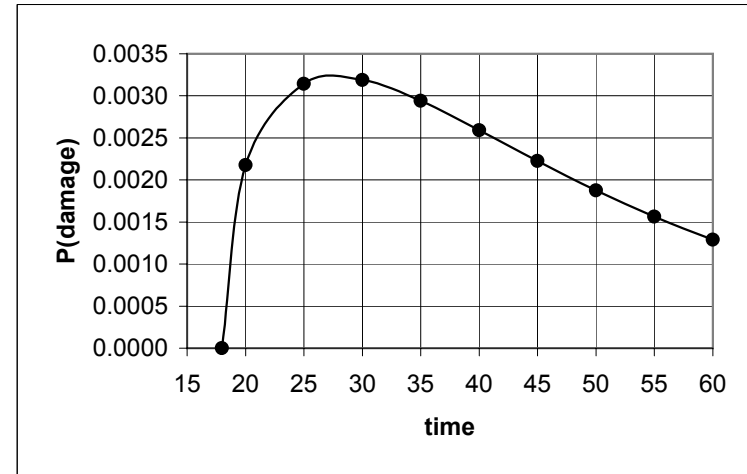


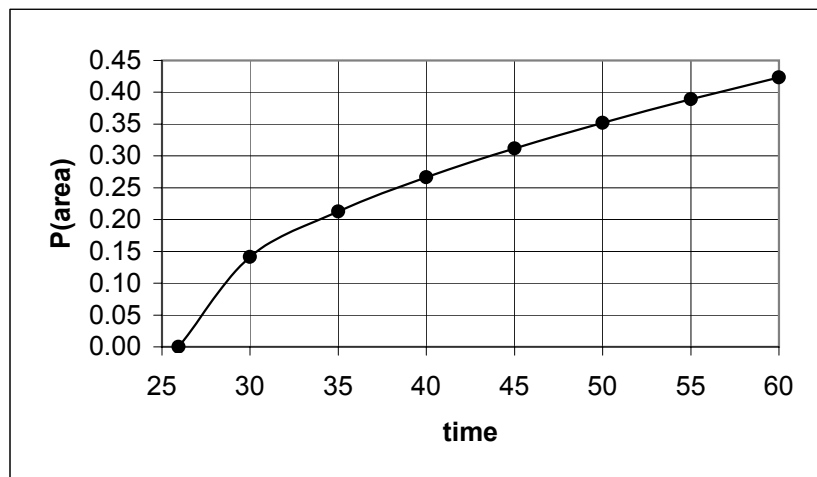
time (min)	Area	P(area)	PNS(man)	P(damage)
17.98	4870.00	0.000	0.0200	0.00E+00
20	5475.00	0.121	0.0180	2.17E-03
25	6975.00	0.225	0.0140	3.14E-03
30	8475.00	0.294	0.0108	3.19E-03
35	9975.00	0.350	0.0084	2.94E-03
40	11475.00	0.398	0.0065	2.59E-03
45	12975.00	0.441	0.0050	2.22E-03
50	14475.00	0.481	0.0039	1.88E-03
55	15975.00	0.517	0.0030	1.56E-03
60	17475.00	0.550	0.0023	1.29E-03

MU PUMP ROOM FIRE

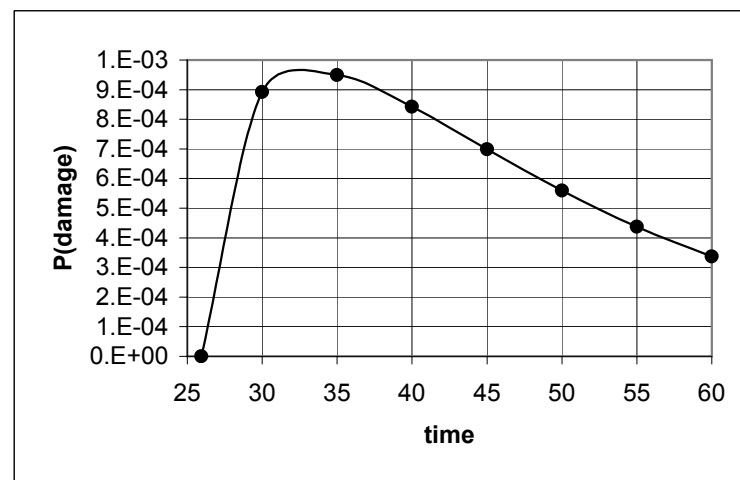
time (min)	temp (°C)	T=f(t) [t<60]	Area
0.00	0.00	60.00	
1.00	180.00	180.00	90.00
60.00	235.00	55.00	12242.50
		235.00	12332.50

time (min)	Area	P(area)
25.94	4870.00	0.000
30	5701.99	0.141
35	6748.81	0.213
40	7818.94	0.266
45	8912.37	0.312
50	10029.11	0.352
55	11169.15	0.389
60	12332.50	0.424





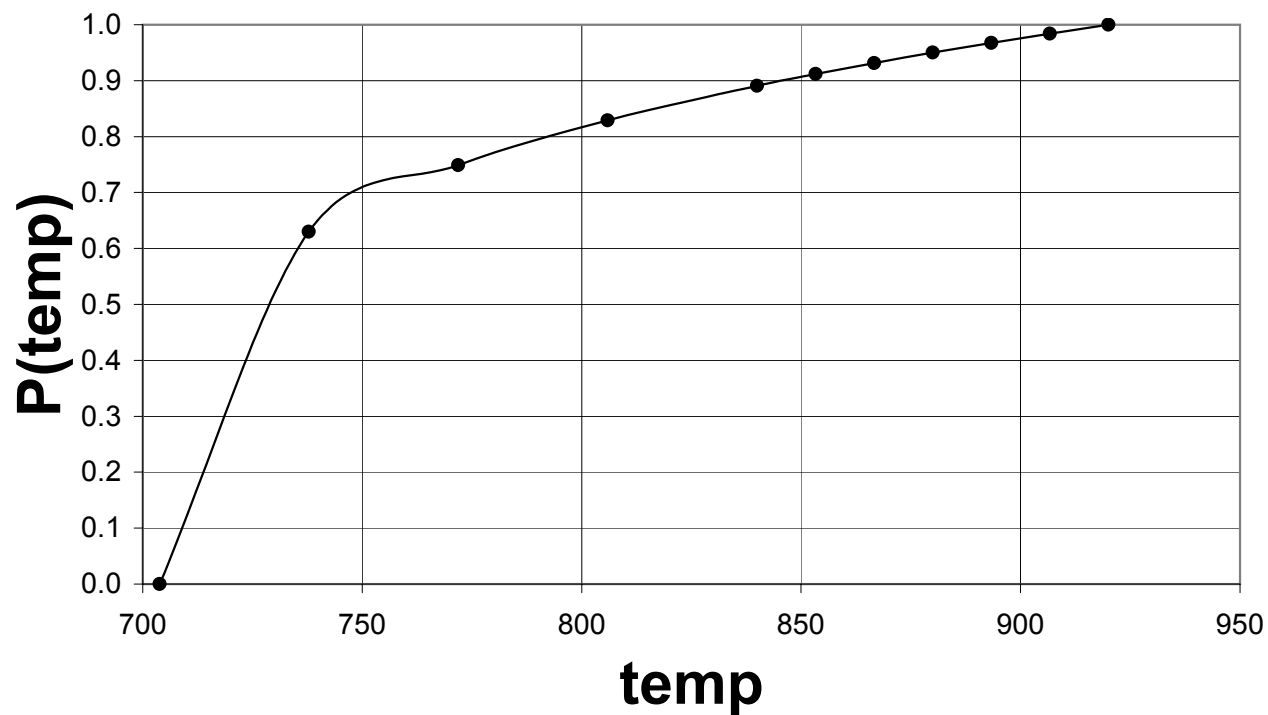
time (min)	Area	P(area)	PNS(man)	P(damage)
25.94	4870.00	0.000	0.00835	0.00E+00
30	5701.99	0.141	0.00631	8.92E-04
35	6748.81	0.213	0.00447	9.50E-04
40	7818.94	0.266	0.00316	8.43E-04
45	8912.37	0.312	0.00224	6.99E-04
50	10029.11	0.352	0.00159	5.59E-04
55	11169.15	0.389	0.00112	4.37E-04
60	12332.50	0.424	0.00080	3.37E-04

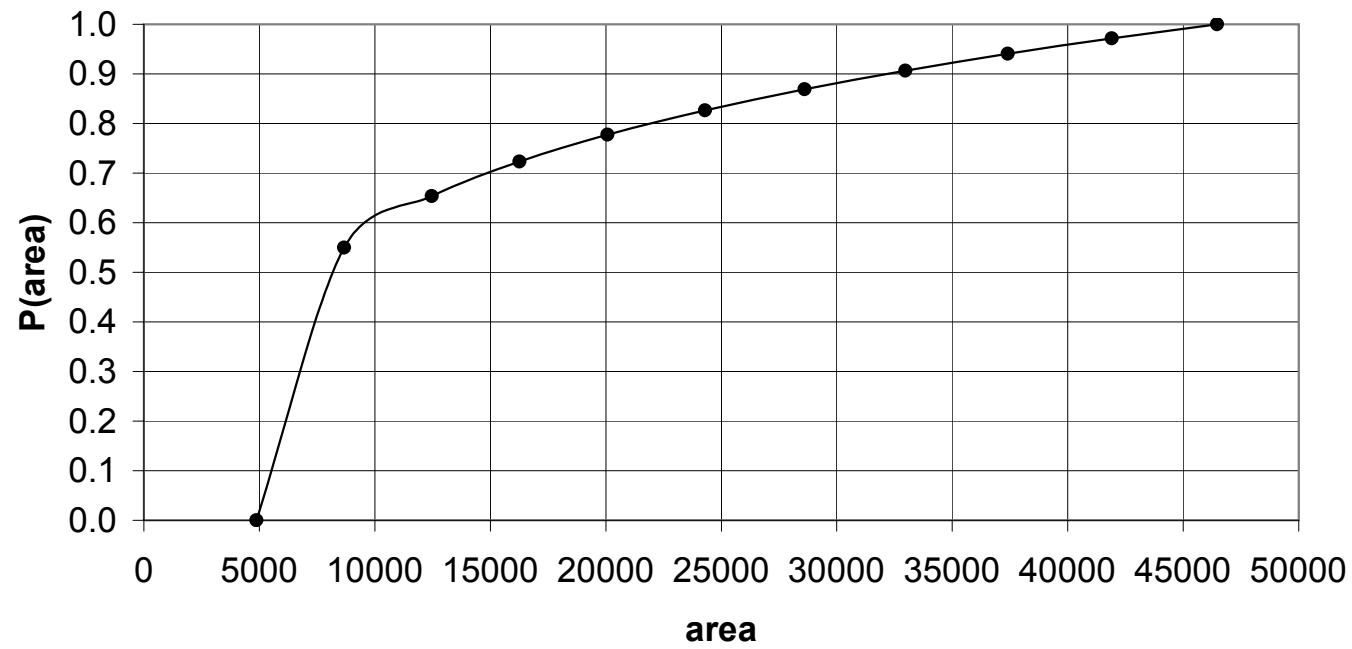


ATSM-E119 FIRE

time (min)	temp (°C)	T=f(t) [t<60]	Area	P(temp)	P(area)
0.00	0.00	25.00		8.29E-01	7.24E-01
6.50	680.00	680.00	2210.00		
30.00	840.00	125.96	14060.00		
60.00	920.00	0.00	0.00		
		805.96	16270.00		

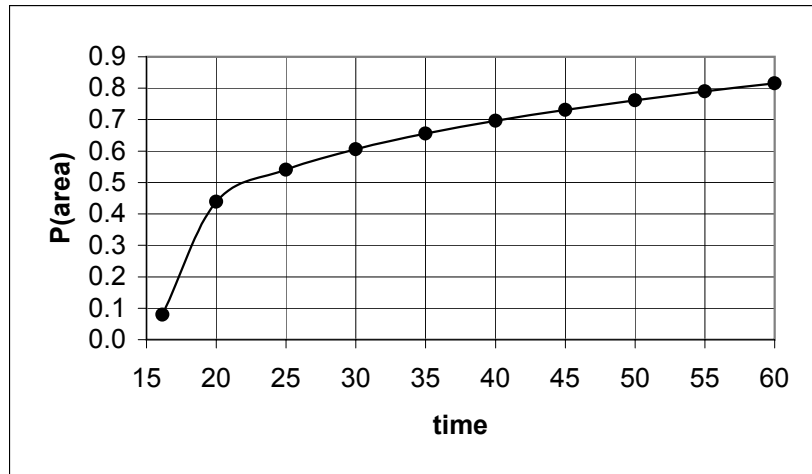
time (min)	temp (°C)	P(temp)	Area	P(area)
10	703.83	0.000	4870.00	0.000
15	737.87	0.630	8670.00	0.550
20	771.91	0.749	12470.00	0.654
25	805.96	0.829	16270.00	0.724
30	840.00	0.891	20070.00	0.777
35	853.33	0.912	24303.33	0.827
40	866.67	0.932	28603.33	0.869
45	880.00	0.950	32970.00	0.907
50	893.33	0.968	37403.33	0.940
55	906.67	0.984	41903.33	0.971
60	920.00	1.000	46470.00	1.000



**EDG OIL FIRE**

time (min)	temp (°C)	T=f(t) [t<60]	Area
0.00	0.00	43.85	
7.50	390.00	390.00	1462.50
60.00	440.00	34.62	14805.70
		424.62	16268.20

time (min)	Area	P(area)
16.15	4871.63	0.079
20	6411.90	0.439
25	8433.33	0.541
30	10478.57	0.606
35	12547.62	0.655
40	14640.48	0.696
45	16757.14	0.731
50	18897.62	0.762
55	21061.90	0.790
60	23250.00	0.815

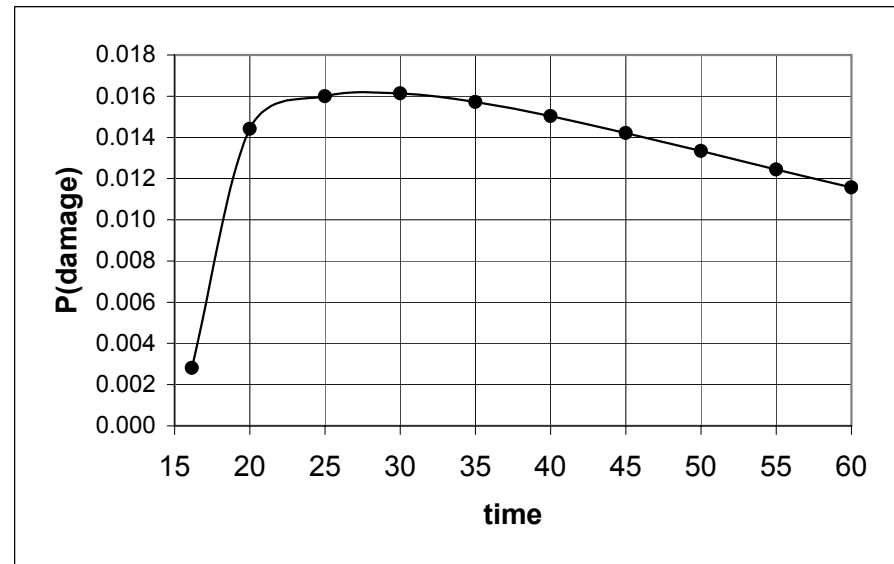


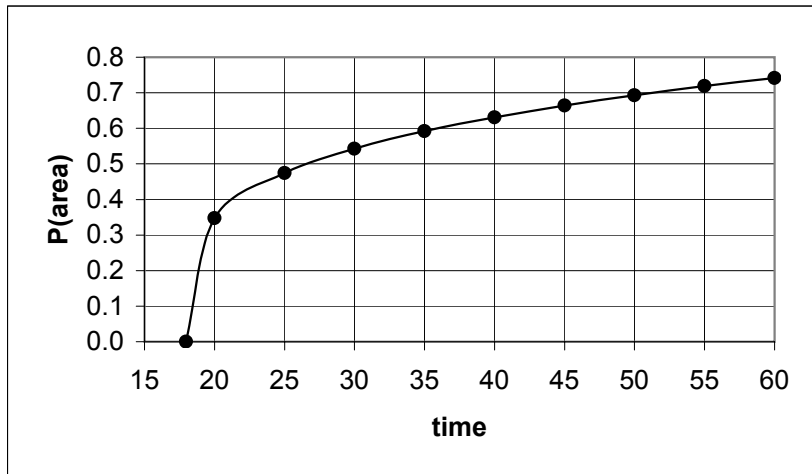
time (min)	Area	P(area)	PNS(man)	P(damage)
16.15	4871.63	0.079	0.0356	2.82E-03
20	6411.90	0.439	0.0329	1.44E-02
25	8433.33	0.541	0.0296	1.60E-02
30	10478.57	0.606	0.0266	1.61E-02
35	12547.62	0.655	0.0240	1.57E-02
40	14640.48	0.696	0.0216	1.50E-02
45	16757.14	0.731	0.0194	1.42E-02
50	18897.62	0.762	0.0175	1.33E-02
55	21061.90	0.790	0.0158	1.24E-02
60	23250.00	0.815	0.0142	1.16E-02

ELEC SWGR FIRE

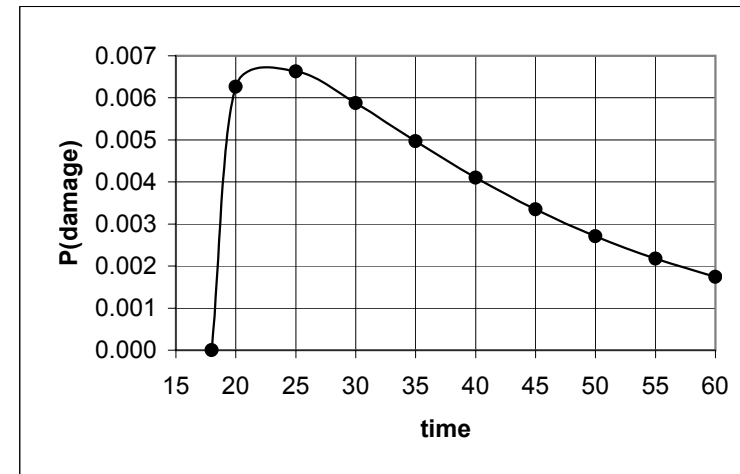
time (min)	temp (°C)	T=f(t) [t<60]	Area
0.00	0.00	55.98	
3.50	300.00	300.00	525.00
60.00	300.00	0.00	15744.00
		300.00	16269.00

time (min)	Area	P(area)
17.98	4870.00	0.000
20	5475.00	0.347
25	6975.00	0.474
30	8475.00	0.543
35	9975.00	0.592
40	11475.00	0.631
45	12975.00	0.664
50	14475.00	0.693
55	15975.00	0.719
60	17475.00	0.742



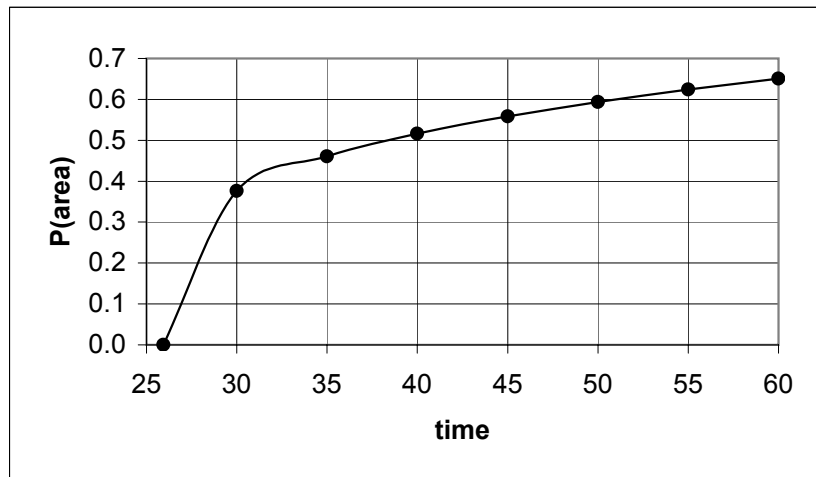


time (min)	Area	P(area)	PNS(man)	P(damage)
17.98	4870.00	0.000	0.0200	0.00E+00
20	5475.00	0.347	0.0180	6.26E-03
25	6975.00	0.474	0.0140	6.63E-03
30	8475.00	0.543	0.0108	5.87E-03
35	9975.00	0.592	0.0084	4.97E-03
40	11475.00	0.631	0.0065	4.10E-03
45	12975.00	0.664	0.0050	3.35E-03
50	14475.00	0.693	0.0039	2.71E-03
55	15975.00	0.719	0.0030	2.17E-03
60	17475.00	0.742	0.0023	1.74E-03

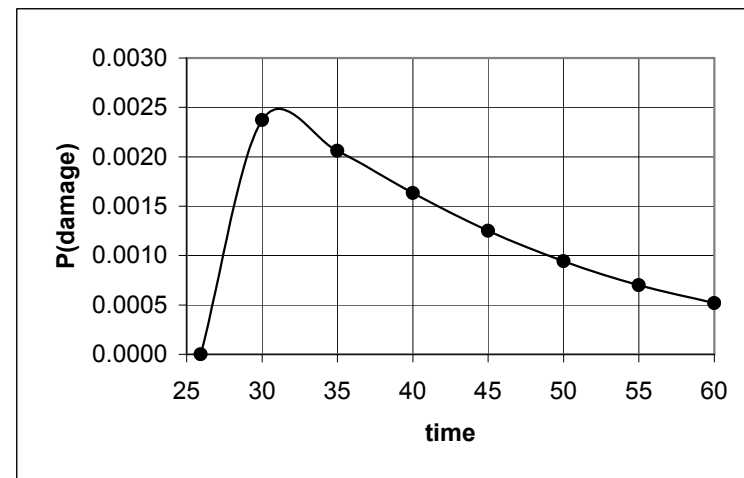
**MU PUMP ROOM FIRE**

time (min)	temp (°C)	T=f(t) [t<60]	Area
0.00	0.00	60.00	
1.00	180.00	180.00	90.00
60.00	235.00	55.00	12242.50
		235.00	12332.50

time (min)	Area	P(area)
25.94	4870.00	0.000
30	5701.99	0.376
35	6748.81	0.461
40	7818.94	0.516
45	8912.37	0.558
50	10029.11	0.593
55	11169.15	0.624
60	12332.50	0.651



time (min)	Area	P(area)	PNS(man)	P(damage)
25.94	4870.00	0.000	0.00835	0.00E+00
30	5701.99	0.376	0.00631	2.37E-03
35	6748.81	0.461	0.00447	2.06E-03
40	7818.94	0.516	0.00316	1.63E-03
45	8912.37	0.558	0.00224	1.25E-03
50	10029.11	0.593	0.00159	9.42E-04
55	11169.15	0.624	0.00112	7.01E-04
60	12332.50	0.651	0.00080	5.18E-04



TIME	ASTM E-119	EDG ROOM (OIL)	SWGR ROOM	MU PUMP ROOM
0	0	0	0	0
1	104.6153846	52	85.71428571	180
3.5	366.1538462	182	300	182.3305085
6.5	680	338	300	185.1271186
7.5	687.1111111	390	300	186.059322
30	840	411.4285714	300	207.0338983
60	920	440	300	235

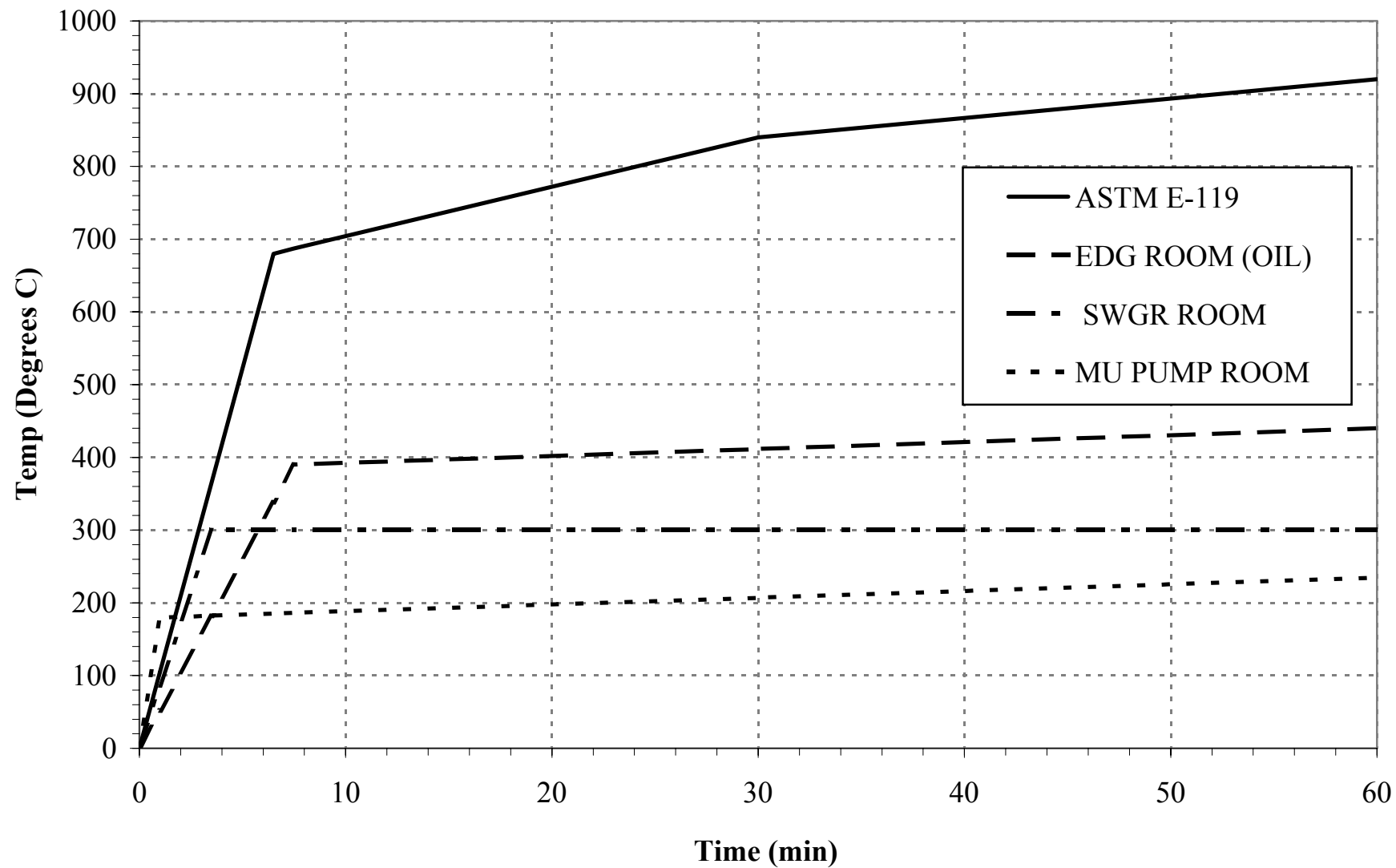


FIGURE 1. Linearized CFAST Time-Temperature Curves for Selected NPP Fires