

SCHEDULE 5 U.K.

Regulation 27

SEPARATION DISTANCES

1.—(1) In this Schedule—

“brick-built” means having an outer structure which is wholly or mainly of brick, concrete, stone or other similar material;

“bridleway” has the meaning given in the Highways Act 1980 ^{M1};

“curtain walling” means the glass, masonry or other cladding which is suspended from the structural framework of a building;

“dangerous goods” means dangerous goods to which the Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 ^{M2} apply;

“distance”, save in the definition of “reference zone”, means the minimum distance;

“footpath” has the meaning given in the Highways Act 1980;

“footway” has the meaning given in the Highways Act 1980;

“lightly-used road” means a road used ordinarily by more than 20 and no more than 500 vehicles every 24 hours;

“major road” means a road used ordinarily by more than 10,000 vehicles every 24 hours;

“metal-built” means built wholly or mainly of steel or other metal;

“minor road” means a road used ordinarily by more than 500 vehicles every 24 hours, other than a major road;

“mounded” means surrounded by suitable mounds;

“place of public resort” means a place where more than 100 persons are present, or are likely to be present, at any one time on a weekly or more frequent basis;

“processing” means the packing, unpacking, re-packing, labelling or testing of explosives or the division of an amount of explosives stored in bulk into smaller amounts and the placing of those smaller amounts into containers;

“protected place of Class A” means a—

- (a) bridleway;
- (b) footpath;
- (c) footway;
- (d) lightly used road; or
- (e) waterway;

“protected place of Class B” means a—

- (a) dock;
- (b) jetty;
- (c) minor road;
- (d) pier;
- (e) railway line;
- (f) reservoir;
- (g) river wall;
- (h) runway for the use of aircraft; or
- (i) sea wall;

“protected place of Class C” means a —

- (a) major road; or
- (b) place of public resort;

“protected place of Class D” means—

- (a) a building, whether a dwelling or not, but not including a vulnerable building;
- (b) a place, other than a building to which paragraph (a) applies, that is used for the storage in bulk of dangerous goods other than goods which are explosives; or
- (c) a place, not within the site where the explosives are stored and other than a building to which paragraph (a) applies, that is used for—
 - (i) the storage of explosives; or
 - (ii) the manufacture or processing of explosives;

“protected place of Class E” means a vulnerable building;

“protected place of Class F” means a building within the site where the explosives are stored, other than—

- (a) a building that is occupied by a person other than the licensee;
- (b) a building that is a vulnerable building;
- (c) a building that is normally occupied by more than 20 people; or
- (d) a building that is used for the storage in bulk of dangerous goods other than goods which are explosives;

“protected place of Class G” means a building or other place within the site where the explosives are stored that is used for the storage of explosives;

“protected place of Class H” means a building or other place within the site where the explosives are stored that is used for the manufacture or processing of explosives;

“reference zone” means the area around a store having the radius from the centre point of the store specified in column 2 of the relevant Supplementary Table;

“road” means any thoroughfare on which the movement of vehicles is allowed; and

“vulnerable building” means a building or structure of vulnerable construction, that is to say—

- (a) a building of more than three storeys above ground or 12m in height constructed with continuous non-load bearing curtain walling with individual glazed or frangible panels larger than 1.5 m² and extending over more than 50% or 120 m² of the surface of any elevation;
- (b) a building of more than three storeys above ground or 12 m in height with solid walls and individual glass panes or frangible panels larger than 1.5 m² and extending over at least 50% of any elevation;
- (c) a building of more than 400 m² plan area with continuous or individual glazing panes larger than 1.5 m² extending over at least 50% or 120 m² of the plan area; or
- (d) any other structure that, in consequence of an event such as an explosion, may be susceptible to disproportionate damage such as progressive collapse.

(2) Any reference in this Schedule to a thoroughfare (however described), jetty, pier, waterway or railway line does not include any part of a thoroughfare, jetty, pier, waterway or railway line within the site—

- (a) in which the store is situated; and
- (b) which are occupied by the person storing the explosives.

(3) Subject to paragraph 8, any reference in this Schedule to “store” is to the store mentioned in regulation 27(1) in relation to which separation distances are required by that provision to be maintained.

- (4) Any reference in this Schedule to a quantity of explosives shown in column 1 of a Table is to—
(a) a quantity in a store; or
(b) in cases where sub-paragraph (b) of paragraph 7 is being relied on, the sum total of the quantity of explosives in a store and the protected place of Class G to which sub-paragraph (b) of paragraph 7 applies,

which is more than the lower figure but not more than the higher figure in column 1 in the same row of the Table.

(5) Any reference in this Schedule to a building is to a building in or at which people are, or are likely to be, present either all the time or from time to time.

(6) For the purposes of this Schedule, where explosives of different hazard types are in one store, the explosives must be treated as belonging to the hazard type which would require the greatest separation distance for the total quantity of those explosives and the separation distance must be determined in relation to that total quantity.

(7) For the purposes of this Schedule, the radius for a reference zone applying in a particular case is the number in the entry in column 2 of the relevant Supplementary Table corresponding to the quantity of explosives shown in column 1 of the Supplementary Table.

(8) For the purposes of this Schedule, any reference to “bridleway”, “footpath”, “footway” or “waterway” does not include, respectively, a bridleway, footpath, footway used, or waterway navigated, by no more than, ordinarily, 20 persons in any 24 hour period.

(9) For the purposes of this Schedule, an area of low population density is an area where the maximum number of dwellings in a reference zone is equal to or less than the number specified in the entry in column 3 of the relevant Supplementary Table.

(10) Save as stated in paragraph (c) of the definition of “protected place of Class D” and subject to sub-paragraph (2), the references to the places referred to in the definitions from “protected place of Class A” to the definition of “protected place of Class E” are references to such places whether within a site or outside it.

Marginal Citations

M1 1980 c. 66; “bridleway”, “footpath” and “footway” are defined in section 139.

M2 S.I. 2009/1348, to which there are amendments not relevant to these Regulations.

2. Where the storage is—

- (a) of hazard type 1 explosive in a brick-built mounded store, Table 1;
- (b) of hazard type 1 explosive in a brick-built unmounded store, Table 2;
- (c) of hazard type 1 explosive in a metal-built mounded store, Table 3;
- (d) of hazard type 1 explosive in a metal-built unmounded store with no detonator annex attached, Table 4;
- (e) of hazard type 1 explosive in a metal-built unmounded store with a detonator annex attached, Table 5;
- (f) of hazard type 2 explosive, some or all items being of more than 0.7 kg net mass in a mounded store, Table 6;
- (g) of hazard type 2 explosive, some or all items being of more than 0.7 kg net mass in an unmounded store, Table 7;

- (h) of hazard type 2 explosive, every item being of 0.7 kg net mass or less in a mounded store, Table 8;
- (i) of hazard type 2 explosive every item being of 0.7 kg net mass or less in an unmounded store, Table 9
- (j) of hazard type 3 explosive, Table 10;
- (k) of hazard type 4 explosive, Table 11,

applies, and any reference in this Schedule to a relevant Table is a reference to the Table which applies by virtue of this paragraph.

3. For each of Table 1, 3, 4 or 5 where that Table applies, a Supplementary Table for determining the separation distance between a store and a dwelling in an area of low population density applies as follows—

- (a) for Table 1, Supplementary Table 1A;
- (b) for Table 3, Supplementary Table 3A;
- (c) for Table 4, Supplementary Table 4A; and
- (d) for Table 5, Supplementary Table 5A,

and any reference in this Schedule to a relevant Supplementary Table is a reference to the Supplementary Table which applies by virtue of this paragraph.

4.—(1) Paragraph 5 is subject to paragraph 6.

(2) Paragraphs 5 and 6 are subject to sub-paragraph (b) of paragraph 7 for determining the quantity of explosives to be applied —

- (a) for determining the relevant separation distance for the purposes of paragraphs 5 and 6, and
- (b) for paragraph 1(7) in relation to the radius for a reference zone,

in cases where sub-paragraph (b) of paragraph 7 is being relied on.

5. The distance between a store and any protected place of Class A, B, C, D, E, F or H is the distance specified in the entry in the column for that Class of the relevant Table corresponding to the quantity of explosives shown in column 1 of the Table.

6. Where—

- (a) Table 1, 3, 4 or 5 applies; and
- (b) the number of dwellings in the reference zone is equal to or less than the number specified in the entry in column 3 of the relevant Supplementary Table corresponding to the quantity of explosives shown in column 1 of the Supplementary Table,

the distance between a store and any dwelling is the distance (if any) specified in the corresponding entry in column 4 of the Supplementary Table.

7. The distance between a store and any protected place of Class G is either—

- (a) the distance specified in the entry in the column for that Class of the relevant Table corresponding to the quantity of explosives shown in column 1 of the Table; or
- (b) any lesser distance, provided that the quantity of explosives for determining the relevant separation distance for the purposes of paragraphs 5 and 6, and for paragraph 1(7) in relation to the radius for a reference zone, is the sum total of the quantity of explosives in the store and the protected place of Class G for which there is to be any lesser distance.

8. For cases where sub-paragraph (b) of paragraph 7 is being relied on, paragraph 1(6) has effect as if the reference to “one store” were a reference to the store and the protected place of Class G to which sub-paragraph (b) of paragraph 7 applies.

Table 1: Hazard Type 1 explosive in a brick-built mounded store

1 Quantity of explosives (kg)	2 Class distance (m)	3 Class distance (m)	4 Class distance (m)	5 Class distance (m)	6 Class distance (m)	7 Class distance (m)	8 Class G distance (m)	9 Class H distance (m)
						distance (m)		
0.1-25	33	50	100	100	100	50	9	18
25-30	33	50	100	100	100	50	9	18
30-40	34	51	103	103	103	51	9	18
40-50	35	53	106	106	106	53	9	18
50-60	37	55	110	110	110	55	10	22
60-70	37	56	111	114	114	57	10	22
70-80	38	57	113	118	118	59	11	22
80-90	38	58	115	121	121	61	11	22
90-100	39	59	118	125	125	63	11	22
100-150	43	64	128	142	142	71	13	27
150-200	46	70	139	156	156	78	14	27
200-250	50	75	150	169	169	85	16	30
250-300	54	80	161	170	170	85	16	30
300-350	57	86	172	172	172	86	18	33
350-400	61	91	183	183	183	92	18	33
400-450	64	97	193	193	193	97	19	36
450-500	68	102	204	204	204	102	19	36
500-550	68	102	204	204	204	102	24	56
550-600	68	102	204	204	216	102	24	56
600-650	68	102	204	227	227	113	24	56
650-700	68	102	204	231	238	116	24	56
700-750	68	102	204	235	249	118	24	56
750-800	68	102	204	238	260	119	24	56
800-850	68	102	204	242	270	121	24	56
850-900	68	102	204	245	280	123	24	56
900-950	68	102	204	248	290	124	24	56
950-1000	68	102	204	250	300	125	24	56
1000-1100	68	102	204	255	319	128	30	85
1100-1200	68	102	204	259	337	130	30	85
1200-1300	68	102	204	263	354	132	30	85
1300-1400	68	102	204	266	370	133	30	85
1400-1500	68	102	204	269	386	135	30	85

Changes to legislation: There are currently no known outstanding effects for the
The Explosives Regulations 2014, SCHEDULE 5. (See end of Document for details)

1500-1600	68	102	204	272	402	136	30	85
1600-1700	69	104	208	274	416	137	30	85
1700-1800	72	108	215	277	431	139	30	85
1800-1900	74	111	222	279	444	140	30	85
1900-2000	76	114	229	281	458	141	30	85
2000-3000	95	143	285	285	570	143	35	106
3000-4000	109	164	328	328	656	164	38	122
4000-5000	121	181	362	362	724	181	41	134
5000- 10000	158	237	475	475	950	237	52	176
10000-15000	183	274	548	548	1097	274	59	204
15000-20000	202	303	606	606	1211	303	65	225
20000-25000	218	327	653	653	1306	327	70	243
25000-30000	232	347	695	695	1389	347	75	258
30000-40000	255	383	765	765	1531	384	82	275
40000-50000	275	412	825	825	1649	412	88	295
50000-60000	292	438	877	877	1753	438	94	315
60000-70000	308	461	923	923	1846	461	99	345
70000-80000	322	482	965	965	1930	482	103	345
80000-90000	335	502	1004	1004	2007	502	108	375
90000-100000	347	520	1040	1040	2079	520	111	375

Supplementary Table 1A: Hazard Type 1 explosive in a brick-built mounded store – distances for areas of low population density

1 Quantity of explosives (kg)	2 Reference radius (m)	3 Maximum number of dwellings in the reference zone	4 Distances to dwellings if the maximum number of dwellings in the reference zone is not exceeded (m)
0.1-60			
60-70	222	61	111
70-80	227	63	113
80-90	231	66	115
90-100	235	68	118
100-150	257	81	128
150-200	279	96	139

200-250	300	128	150
250-600			
600-1600	408	206	204
1600-1700	416	214	208
1700-1800	431	229	215
1800-1900	444	244	222
1900-2000	458	259	229

Table 2: Hazard Type 1 explosives in a brick-built unmounded store

1 Quantity of explosives (kg)	2 Class A distance Bndjstance	3 Class Cndjstance	4 Class Dndjstance	5 Class Endjstance	6 Class Fndjstance	7 Class Gndjstance	8 Class Hndjstance	9 Class Indjstance (m)
0.1-25	47	70	141	141	141	70	141	141
25-30	48	72	144	144	144	72	144	144
30-40	50	76	151	151	151	76	151	151
40-50	53	80	159	159	159	80	159	159
50-60	56	84	168	168	168	84	168	168
60-70	59	88	176	176	176	88	176	176
70-80	61	92	184	184	184	92	184	184
80-90	64	96	191	191	191	96	191	191
90-100	66	99	199	199	199	99	199	199
100-150	77	115	230	230	230	115	230	230
150-200	85	128	256	256	256	128	256	256
200-250	92	138	276	276	276	138	276	276
250-300	98	147	293	293	293	147	293	293
300-350	103	154	308	308	308	154	308	308
350-400	107	160	320	320	320	160	320	320
400-450	110	165	331	331	331	165	331	331
450-500	113	170	340	340	340	170	340	340
500-550	116	174	348	348	348	174	348	348
550-600	118	178	355	355	355	178	355	355
600-650	120	181	361	361	361	181	361	361
650-700	122	184	367	367	367	184	367	367
700-750	124	186	372	372	372	186	372	372
750-800	126	189	377	377	377	189	377	377
800-850	127	191	381	381	381	191	381	381

850-900	128	193	385	385	385	193	385	385
900-950	130	194	389	389	389	194	389	389
950-1000	131	196	392	392	392	196	392	392
1000-1100	133	199	398	398	398	199	398	398
1100-1200	134	202	403	403	403	202	403	403
1200-1300	136	204	408	408	408	204	408	408
1300-1400	137	206	412	412	412	206	412	412
1400-1500	138	208	415	415	415	208	415	415
1500-1600	139	209	418	418	418	209	418	418
1600-1700	140	211	421	421	421	211	421	421
1700-1800	141	212	424	424	431	212	424	424
1800-1900	142	213	426	426	444	213	426	426
1900-2000	143	214	428	428	458	214	428	428
2000-3000	147	221	442	442	570	221	442	442
3000-4000	150	225	449	449	656	225	449	449
4000-5000	151	227	454	454	724	227	454	454
5000-10000	167	251	502	502	950	251	502	502
10000-15000	185	277	554	554	1097	277	554	554
15000-20000	202	303	606	606	1211	303	606	606
20000-25000	218	327	653	653	1306	327	653	653
25000-30000	232	347	695	695	1389	347	695	695
30000-40000	255	383	765	765	1531	383	765	765
40000-50000	275	412	825	825	1649	412	825	825
50000-60000	292	438	877	877	1753	438	877	877
60000-70000	308	461	923	923	1846	461	923	923
70000-80000	322	482	965	965	1930	482	965	965
80000-90000	335	502	1004	1004	2007	502	1004	1004
[F190000 – 347 100000]		520	1040	1040	2079	520	1040	1040

Table 3: Hazard Type 1 explosive in a metal-built mounded store

1 Quantity of explosives (kg)	2 Class A	3 Class B	4 Class C	5 Class D	6 Class E	7 Class F	8 Class G	9 Class H
0.1-10	7	10	21	23	40	12	9	18

10-20	9	13	26	29	42	15	9	18
20-30	10	15	30	33	44	17	9	18
30-40	11	16	33	37	46	18	9	18
40-50	12	18	35	40	48	20	9	18
50-60	13	19	38	42	48	21	10	22
60-70	13	20	40	44	52	22	10	22
70-80	14	20	41	46	57	23	11	22
80-90	14	21	42	47	61	24	11	22
90-100	14	21	43	48	66	24	11	22
100-150	16	24	49	55	86	28	13	27
150-200	18	27	54	62	104	31	14	27
200-250	20	30	60	69	121	35	16	30
250-300	23	34	68	76	136	38	16	30
300-350	25	38	76	83	151	44	18	33
350-400	28	41	83	90	165	45	18	33
400-450	30	45	89	97	178	49	19	36
450-500	32	48	96	102	191	51	19	36
500-550	34	51	102	107	204	54	24	56
550-600	36	54	108	111	216	56	24	56
600-650	38	57	114	116	227	58	24	56
650-700	40	60	119	121	238	61	24	56
700-750	42	62	125	126	249	63	24	56
750-800	43	65	130	131	260	66	24	56
800-850	45	68	135	136	270	68	24	56
850-900	47	70	140	140	280	70	24	56
900-950	48	73	145	145	290	73	24	56
950-1000	50	75	150	150	300	75	24	56
1000-1100	53	80	159	159	319	80	30	85
1100-1200	56	84	168	168	337	84	30	85
1200-1300	59	88	177	177	354	89	30	85
1300-1400	62	93	185	185	370	93	30	85
1400-1500	64	97	193	193	386	97	30	85
1500-1600	67	100	201	201	402	101	30	85
1600-1700	69	104	208	208	416	104	30	85
1700-1800	72	108	215	215	431	108	30	85

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1800-1900	74	111	222	222	444	111	30	85
1900-2000	76	114	229	229	458	115	30	85
2000-3000	95	143	285	285	570	143	35	106
3000-4000	109	164	328	328	656	164	38	122
4000-5000	121	181	362	362	724	181	41	134
5000-10000	158	237	475	475	950	238	52	176
10000-15000	183	274	548	548	1097	274	59	204
15000-20000	202	303	606	606	1211	303	65	225
20000-25000	218	327	653	653	1306	327	70	243
25000-30000	232	347	695	695	1389	348	75	258
30000-40000	255	383	765	765	1531	383	82	275
40000-50000	275	412	825	825	1649	412	88	295
50000-60000	292	438	877	877	1753	438	94	315
60000-70000	308	461	923	923	1846	461	99	345
70000-80000	322	482	965	965	1930	482	103	345
80000-90000	335	502	1004	1004	2007	502	108	375
90000-100000	347	520	1040	1040	2079	520	111	375

Supplementary Table 3A: Hazard type 1 explosive in a metal-built mound store – distances for areas of low population density

1 Quantity of explosives (kg)	2 Reference radius (m)	3 Maximum number of dwellings in the reference zone	4 Distances to dwellings if the maximum number of dwellings in the reference zone is not exceeded (m)
0.1-10	41	2	21
10-20	52	3	26
20-30	60	4	30
30-40	66	5	33
40-50	71	6	35
50-60	75	7	38
60-70	79	8	40
70-80	81	8	41
80-90	83	8	42
90-100	86	9	43
100-150	97	12	49

150-200	109	14	54
200-250	121	18	60
250-300	136	23	68
300-350	151	28	76
350-400	165	34	83
400-450	178	39	89
450-500	191	45	96
500-550	204	51	102
550-600	216	57	108
600-650	227	63	114
650-700	238	70	119
700-750	249	77	125
750-800	260	83	130
800-850	270	90	135

Table 4: Hazard Type 1 explosive in a metal built unmounded store with no detonator annex attached

1 Quantity of explosives (kg)	2 Class A distance (m)	3 Class B distance (m)	4 Class C distance (m)	5 Class D distance (m)	6 Class E distance (m)	7 Class F distance (m)	8 Class G distance (m)	9 Class H distance (m)
0.1-10	8	11	23	30	40	15	30	30
10-20	10	14	29	35	42	18	35	35
20-30	11	16	33	39	44	20	39	39
30-40	12	18	36	42	46	21	42	42
40-50	13	19	38	44	48	22	44	44
50-60	13	20	40	46	48	23	46	46
60-70	14	21	42	48	52	24	48	48
70-80	14	22	43	50	57	25	50	50
80-90	15	22	44	52	61	26	52	52
90-100	15	23	45	55	66	28	55	55
100-150	17	25	50	66	86	33	66	66
150-200	18	28	55	78	104	39	78	78
200-250	20	30	60	89	121	45	89	89
250-300	23	34	68	101	136	51	101	101
300-350	25	38	76	112	151	56	112	112

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350-400	28	41	83	124	165	62	124	124
400-450	30	45	89	135	178	68	135	135
450-500	32	48	96	138	191	69	138	138
500-550	34	51	102	141	204	71	141	141
550-600	36	54	108	144	216	72	144	144
600-650	38	57	114	147	227	74	147	147
650-700	40	60	119	150	238	75	150	150
700-750	42	62	125	153	249	77	153	153
750-800	43	65	130	156	260	78	156	156
800-850	45	68	135	159	270	80	159	159
850-900	47	70	140	162	280	81	162	162
900-950	48	73	145	165	290	83	165	165
950-1000	50	75	150	168	300	84	168	168
1000-1100	53	80	159	175	319	88	175	175
1100-1200	56	84	168	181	337	91	181	181
1200-1300	59	88	177	187	354	94	187	187
1300-1400	62	93	185	193	370	97	193	193
1400-1500	64	97	193	199	386	100	199	199
1500-1600	67	100	201	205	402	103	205	205
1600-1700	69	104	208	211	416	106	211	211
1700-1800	72	108	215	217	431	108	217	217
1800-1900	74	111	222	223	444	111	223	223
1900-2000	76	114	229	229	458	114	229	229
2000-3000	95	143	285	285	570	143	285	285
3000-4000	109	164	328	328	656	164	328	328
4000-5000	121	181	362	362	724	181	362	362
5000-10000	158	237	475	475	950	237	475	475
10000-15000	183	274	548	548	1097	274	548	548
15000-20000	202	303	606	606	1211	303	606	606
20000-25000	218	327	653	653	1306	653	653	653
25000-30000	232	347	695	695	1389	347	695	695
30000-40000	255	383	765	765	1531	383	765	765
40000-50000	275	412	825	825	1649	412	825	825
50000-60000	292	438	877	877	1753	438	877	877
60000-70000	308	461	923	923	1846	461	923	923

70000-80000322	482	965	965	1930	482	965	965
80000-90000335	502	1004	1004	2007	502	1004	1004
90000-10000047	520	1040	1040	2079	520	1040	1040

Supplementary Table 4A: Hazard Type 1 explosive in a metal-built unmounded store with no detonator annex attached – distances for areas of low population density

1 Quantity of explosives (kg)	2 Reference radius (m)	3 Maximum number of dwellings in the reference zone	4 Distances to dwellings if the maximum number of dwellings in the reference zone is not exceeded (m)
0.1-10	46	3	23
10-20	57	4	29
20-30	65	5	33
30-40	71	6	36
40-50	76	7	38
50-60	80	8	40
60-70	84	9	42
70-80	87	9	43
80-90	89	10	44
90-100	91	10	45
100-150	100	12	50
150-200	110	15	55
200-250	121	18	60
250-300	136	23	68
300-350	151	28	76
350-400	165	34	83
400-450	178	39	89
450-500	191	45	96
500-550	204	51	102
550-600	216	57	108
600-650	227	64	114
650-700	238	70	119
700-750	249	77	125
750-800	260	84	130
800-850	270	90	135

850-900	280	97	140
900-950	290	104	145
950-1000	300	111	150
1000-1100	319	125	159

Table 5: Hazard type 1 explosive in a metal-built un-mounded store with a detonator annex attached

<i>1 Quantity of explosives (kg)</i>	<i>2 Class A distance (m)</i>	<i>3 Class B distance (m)</i>	<i>4 Class C distance (m)</i>	<i>5 Class D distance (m)</i>	<i>6 Class E distance (m)</i>	<i>7 Class F distance (m)</i>	<i>8 Class G distance (m)</i>	<i>9 Class H distance (m)</i>
0.1-10	10	16	31	48	48	24	48	48
10-20	12	18	36	50	50	25	50	50
20-30	13	19	38	52	52	26	52	52
30-40	14	21	41	54	54	27	54	54
40-50	14	22	43	56	56	28	56	56
50-60	15	22	45	58	58	29	58	58
60-70	16	24	47	60	60	30	60	60
70-80	16	25	49	63	63	32	63	63
80-90	17	26	51	70	70	35	70	70
90-100	18	27	53	77	77	39	77	77
100-150	21	32	63	110	110	55	110	110
150-200	25	37	74	143	143	72	143	143
200-250	28	42	84	176	176	88	176	176
250-300	31	47	94	209	209	105	209	209
300-350	35	52	104	242	242	121	242	242
350-400	38	57	115	275	275	138	275	275
400-450	42	62	125	308	308	154	308	308
450-500	43	64	128	309	309	155	309	309
500-550	44	66	132	310	310	155	310	310
550-600	45	68	135	311	311	156	311	311
600-650	46	69	138	311	311	156	311	311
650-700	47	71	142	312	312	156	312	312
700-750	48	73	145	313	313	157	313	313
750-800	49	74	148	314	314	157	314	314
800-850	51	76	152	315	315	158	315	315
850-900	52	78	155	316	316	158	316	316

900-950	53	79	159	317	317	159	317	317
950-1000	54	81	162	318	318	159	318	318
1000-1100	56	84	169	319	319	160	319	319
1100-1200	58	88	175	321	337	161	321	321
1200-1300	61	91	182	323	354	162	323	323
1300-1400	63	94	189	325	370	163	325	325
1400-1500	65	98	195	326	386	163	326	326
1500-1600	67	101	202	328	402	164	328	328
1600-1700	70	104	209	330	416	165	330	330
1700-1800	72	108	215	332	431	166	332	332
1800-1900	74	111	222	333	444	167	333	333
1900-2000	76	114	229	335	458	168	335	335
2000-3000	95	143	285	353	570	177	353	353
3000-4000	109	164	328	370	656	185	370	370
4000-5000	121	181	362	388	724	194	388	388
5000-10000	158	237	475	475	950	237	475	475
10000-15000	183	274	548	548	1097	274	548	548
15000-20000	202	303	606	606	1211	303	606	606
20000-25000	218	327	653	653	1306	327	653	653
25000-30000	232	347	695	695	1389	347	695	695
30000-40000	255	383	765	765	1531	383	765	765
40000-50000	275	412	825	825	1649	412	825	825
50000-60000	292	438	877	877	1753	438	877	877
60000-70000	308	461	923	923	1846	461	923	923
70000-80000	322	482	965	965	1930	482	965	965
80000-90000	335	502	1004	1004	2007	502	1004	1004
90000-100000	347	520	1040	1040	2079	520	1040	1040

Supplementary Table 5A:- Hazard Type 1 explosive in a metal-built un-mounded store with a detonator annex attached – distances for areas of low population density

1 of Explosives (kg)	Quantity	2 Reference radius (m)	zone	3 Maximum number of dwellings in the reference zone	4 Distances to dwellings if the maximum number of dwellings in the reference zone is not exceeded (m)

0.1 -10	62	5	31
10-20	71	6	36
20-30	77	7	38
30-40	82	8	41
40-50	86	9	43
50-60	90	10	45
60-70	94	11	47
70-80	98	12	49
80-90	102	13	51
90-100	106	14	53
100-150	127	20	63
150-200	147	27	74
200-250	168	35	84
250-300	188	44	94
300-350	209	54	104
350-400	229	65	115
400-450	250	77	125
450-500	257	81	128
500-550	263	85	132
550-600	270	90	135
600-650	277	95	138
650-700	284	99	142
700-750	290	104	145
750-800	297	109	148
800-850	304	114	152
850-900	310	119	155
900-950	317	124	159
950-1000	324	129	162
1000-1100	337	140	169
1100-1200	351	152	175
1200-1300	364	163	182
1300-1400	377	176	189
1400-1500	391	188	195
1500-1600	404	202	202
1600-1700	418	215	209

1700-1800	431	229	215
1800-1900	444	244	222
1900-2000	458	259	229
2000-3000	570	401	285
3000-4000	656	530	328
4000-5000	724	647	362

**Table 6: Hazard Type 2 explosive, some or all items
being of more than 0.7kg net mass in a mounded store**

1 Quantity of explosives (kg)	2 Class A distance Bndjstance	3 Class Cndjstance	4 Class Dndjstance	5 Class Endjstance	6 Class Fndjstance	7 Class Gndjstance	8 Class Hndjstance	9 Class Indjstance (m)
0.1 - 25	20	30	60	60	120	30	9	32
25-30	20	30	60	60	120	30	9	32
30-40	25	37	74	74	148	37	9	32
40-50	29	44	88	88	176	44	9	32
50-60	33	49	99	99	198	49	9	46
60-70	36	54	108	108	216	54	9	46
70-80	39	58	116	116	232	58	9	46
80-90	41	61	123	123	246	61	9	46
90-100	43	64	129	129	258	64	9	46
100-150	51	76	152	152	304	76	9	61
150-200	56	84	168	168	336	84	9	61
200-250	60	91	181	181	362	91	9	69
250-300	64	96	191	191	382	96	9	69
300-350	67	100	200	200	400	100	10	75
350-400	69	104	207	207	414	104	10	75
400-450	71	107	213	213	426	107	10	79
450-500	73	110	219	219	438	110	10	79
500-550	75	112	224	224	448	112	10	92
550-600	76	115	229	229	458	115	10	92
600-650	78	117	233	233	466	117	10	92
650-700	79	119	237	237	474	119	10	92
700-750	80	120	241	241	482	120	10	92
750-800	81	122	244	244	488	122	10	92
800-850	83	124	248	248	496	124	10	92

850-900	84	125	251	251	502	125	10	92
900-950	84	127	253	253	506	127	10	92
950-1000	85	128	256	256	512	128	10	92
1000-1100	87	131	261	261	522	131	11	105
1100-1200	89	133	266	266	532	133	11	105
1200-1300	90	135	270	270	540	135	11	105
1300-1400	91	137	274	274	548	137	11	105
1400-1500	92	139	277	277	554	139	11	105
1500-1600	93	140	280	280	560	140	11	105
1600- 1700	95	142	284	284	568	142	11	105
1700-1800	95	143	286	286	572	143	11	105
1800-1900	96	145	289	289	578	145	11	105
1900-2000	97	146	292	292	584	146	11	105
2000-3000	104	156	312	312	624	156	12	112
3000-4000	109	163	326	326	652	163	13	117
4000-5000	112	168	337	337	674	168	14	121
5000-10000	123	185	370	370	740	185	17	133
10000-15000	129	194	388	388	776	194	20	140
15000-20000	134	201	401	401	802	201	22	144
20000-25000	137	206	411	411	822	206	24	148
25000-30000	140	210	419	419	838	210	26	151
30000-40000	144	216	431	431	862	216	29	156
40000-50000	147	220	441	441	882	220	32	159
50000-60000	150	224	449	449	898	224	35	162
60000-70000	152	227	455	455	910	227	36	166
70000-80000	153	230	460	460	920	230	38	166
80000-90000	155	233	465	465	930	233	39	170
90000-100000	157	235	470	470	940	235	40	170

Table 7: Hazard Type 2 explosive, some or all items being of more than 0.7 kg net mass in an unmounded store

1 Quantity of explosives (kg)	2 Class A distance (m)	3 Class Bndistance (m)	4 Class Cndistance (m)	5 Class Dndistance (m)	6 Class Endistance (m)	7 Class Fndistance (m)	8 Class Gndistance (m)	9 Class Hndistance (m)
0.1-25	20	30	60	60	120	30	60	60
25-30	20	30	60	60	120	30	60	60

30-40	25	37	74	74	148	37	74	74
40-50	29	44	88	88	176	44	88	88
50-60	33	49	99	99	198	49	99	99
60-70	36	54	108	108	216	54	108	108
70-80	39	58	116	116	232	58	116	116
80-90	41	61	123	123	246	61	123	123
90-100	43	64	129	129	258	64	129	129
100-150	51	76	152	152	304	76	152	152
150-200	56	84	168	168	336	84	168	168
200-250	60	91	181	181	362	91	181	181
250-300	64	96	191	191	382	96	191	191
300-350	67	100	200	200	400	100	200	200
350-400	69	104	207	207	414	104	207	207
400-450	71	107	213	213	426	107	213	213
450-500	73	110	219	219	438	110	219	219
500-550	75	112	224	224	448	112	224	224
550-600	76	115	229	229	458	115	229	229
600-650	78	117	233	233	466	117	233	233
650-700	79	119	237	237	474	119	237	237
700-750	80	120	241	241	482	120	241	241
750-800	81	122	244	244	488	122	244	244
800-850	83	124	248	248	496	124	248	248
850-900	84	125	251	251	502	125	251	251
900-950	84	127	253	253	506	127	253	253
950-1000	85	128	256	256	512	128	256	256
1000-1100	87	131	261	261	522	131	261	261
1100-1200	89	133	266	266	532	133	266	266
1200-1300	90	135	270	270	540	135	270	270
1300-1400	91	137	274	274	548	137	274	274
1400-1500	92	139	277	277	554	139	277	277
1500-1600	93	140	280	280	560	140	280	280
1600-1700	95	142	284	284	568	142	284	284
1700-1800	95	143	286	286	572	143	286	286
1800-1900	96	145	289	289	578	145	289	289
1900-2000	97	146	292	292	584	146	292	292

Changes to legislation: There are currently no known outstanding effects for the
The Explosives Regulations 2014, SCHEDULE 5. (See end of Document for details)

2000-3000	104	156	312	312	624	156	312	312
3000-4000	109	163	326	326	652	163	326	326
4000-5000	112	168	337	337	674	168	337	337
5000-10000	123	185	370	370	740	185	370	370
10000-15000	129	194	388	388	776	194	388	388
15000-20000	134	201	401	401	802	201	401	401
20000-25000	137	206	411	411	822	206	411	411
25000-30000	140	210	419	419	838	210	419	419
30000-40000	144	216	431	431	862	216	431	431
40000-50000	147	220	441	441	882	220	441	441
50000-60000	150	224	449	449	898	224	449	449
60000-70000	152	227	455	455	910	227	455	455
70000-80000	153	230	460	460	920	230	460	460
80000-90000	155	233	465	465	930	233	465	465
90000-100000	157	235	470	470	940	235	470	470

**Table 8: Hazard Type 2 explosive every item
being of 0.7kg net mass or less in a mounded store**

Quantity of explosives (kg)	2 Class A distance from instance (m)	3 Class B distance from instance (m)	4 Class C distance from instance (m)	5 Class D distance from instance (m)	6 Class E distance from instance (m)	7 Class F distance from instance (m)	8 Class G distance from instance (m)	9 Class H distance from instance (m)
0.1-25	12	18	37	37	74	18	9	15
25-30	13	19	38	38	76	19	9	15
30-40	14	20	41	41	82	20	9	15
40-50	14	22	43	43	86	22	9	15
50-60	15	22	45	45	90	22	9	18
60-70	16	23	47	47	94	23	9	18
70-80	16	24	48	48	96	24	9	18
80-90	16	25	49	49	98	25	9	18
90-100	17	25	51	51	102	25	9	18
100-150	19	28	56	56	112	28	9	22
150-200	20	30	60	60	120	30	9	22
200-250	21	32	63	63	126	32	9	24
250-300	22	33	66	66	132	33	9	24
300-350	23	34	68	68	136	34	10	25
350-400	24	35	71	71	142	35	10	25

400-450	24	36	73	73	146	36	10	27
450-500	25	37	74	74	148	37	10	27
500-550	25	38	76	76	152	38	10	31
550-600	26	39	78	78	156	39	10	31
600-650	26	39	79	79	158	39	10	31
650-700	27	40	80	80	160	40	10	31
700-750	27	41	82	82	164	41	10	31
750-800	28	41	83	83	166	41	10	31
800-850	28	42	84	84	168	42	10	31
850-900	28	43	85	85	170	43	10	31
900-950	29	43	86	86	172	43	10	31
950-1000	29	44	87	87	174	44	10	31
1000-1100	30	44	89	89	178	44	11	36
1100-1200	30	45	91	91	182	45	11	36
1200-1300	31	46	92	92	184	46	11	36
1300-1400	31	47	94	94	188	47	11	36
1400-1500	32	48	95	95	190	48	11	36
1500-1600	32	48	97	97	194	48	11	36
1600-1700	33	49	98	98	196	49	11	36
1700-1800	33	50	99	99	198	50	11	36
1800-1900	33	50	100	100	200	50	11	36
1900-2000	34	51	101	101	202	51	11	36
2000-3000	37	55	110	110	220	55	12	40
3000-4000	39	59	117	117	234	59	13	42
4000-5000	41	61	122	122	244	61	14	44
5000-10000	47	70	140	140	280	70	17	50
10000-15000	50	76	151	151	302	76	20	54
15000-20000	53	80	159	159	318	80	22	57
20000-25000	55	83	166	166	332	83	24	60
25000-30000	57	86	171	171	342	86	26	62
30000-40000	60	90	180	180	360	90	29	66
40000-50000	62	94	187	187	377	94	32	68
50000-60000	64	97	193	193	386	97	35	70
60000-70000	66	99	198	198	396	99	36	74
70000-80000	67	101	202	202	404	101	38	74

80000-90000 69	103	206	206	412	103	39	76
90000-10000 70	105	210	210	420	105	40	76

**Table 9: Hazard Type 2 explosive every item being
of 0.7kg net mass or less in an unmounded store**

<i>Quantity of explosives (kg)</i>	<i>2 Class A distance from explosive (m)</i>	<i>3 Class B distance from explosive (m)</i>	<i>4 Class C distance from explosive (m)</i>	<i>5 Class D distance from explosive (m)</i>	<i>6 Class E distance from explosive (m)</i>	<i>7 Class F distance from explosive (m)</i>	<i>8 Class G distance from explosive (m)</i>	<i>9 Class H distance (m)</i>
0.1-25	12	18	37	37	74	18	37	37
25-30	13	19	38	38	76	19	38	38
30-40	14	20	41	41	82	20	41	41
40-50	14	22	43	43	86	22	43	43
50-60	15	22	45	45	90	22	45	45
60-70	16	23	47	47	94	23	47	47
70-80	16	24	48	48	96	24	48	48
80-90	16	25	49	49	98	25	49	49
90-100	17	25	51	51	102	25	51	51
100-150	19	28	56	56	112	28	56	56
150-200	20	30	60	60	120	30	60	60
200-250	21	32	63	63	126	32	63	63
250-300	22	33	66	66	132	33	66	66
300-350	23	34	68	68	136	34	68	68
350-400	24	35	71	71	142	35	71	71
400-450	24	36	73	73	146	36	73	73
450-500	25	37	74	74	148	37	74	74
500-550	25	38	76	76	152	38	76	76
550-600	26	39	78	78	156	39	78	78
600-650	26	39	79	79	158	39	79	79
650-700	27	40	80	80	160	40	80	80
700-750	27	41	82	82	164	41	82	82
750-800	28	41	83	83	166	41	83	83
800-850	28	42	84	84	168	42	84	84
850-900	28	43	85	85	170	43	85	85
900-950	29	43	86	86	172	43	86	86
950-1000	29	44	87	87	174	44	87	87

1000-1100	30	44	89	89	178	44	89	89
1100-1200	30	45	91	91	182	45	91	91
1200-1300	31	46	92	92	184	46	92	92
1300-1400	31	47	94	94	188	47	94	94
1400-1500	32	48	95	95	190	48	95	95
1500-1600	32	48	97	97	194	48	97	97
1600-1700	33	49	98	98	196	49	98	98
1700-1800	33	50	99	99	198	50	99	99
1800-1900	33	50	100	100	200	50	100	100
1900-2000	34	51	101	101	202	51	101	101
2000-3000	37	55	110	110	220	55	110	110
3000-4000	39	59	117	117	234	59	117	117
4000-5000	41	61	122	122	244	61	122	122
5000-10000	47	70	140	140	280	70	140	140
10000-15000	50	76	151	151	302	76	151	151
15000-20000	53	80	159	159	318	80	159	159
20000-25000	55	83	166	166	332	83	166	166
25000-30000	57	86	171	171	342	86	171	171
30000-40000	60	90	180	180	360	90	180	180
40000-50000	62	94	187	187	377	94	187	187
50000-60000	64	97	193	193	386	97	193	193
60000-70000	66	99	198	198	396	99	198	198
70000-80000	67	101	202	202	404	101	202	202
80000-90000	69	103	206	206	412	103	206	206
90000-100000	70	105	210	210	420	105	210	210

Table 10: Hazard Type 3 explosive

Quantity of explosives (kg)	2 Class A distance (m)	3 Class B distance (m)	4 Class C distance (m)	5 Class D distance (m)	6 Class E distance (m)	7 Class F distance (m)	8 Class G distance (m)	9 Class H distance (m)
0.1-25	0	0	0	0	0	0	9	12
25-30	7	10	20	20	20	10	9	12
30-40	7	11	22	22	22	11	9	12
40-50	8	12	23	23	23	12	9	12
50-60	8	12	25	25	25	12	9	15
60-70	9	13	26	26	26	13	9	15

70-80	9	14	27	27	27	14	9	15
80-90	9	14	28	28	28	14	9	15
90-100	10	15	29	29	29	15	9	15
100-150	11	17	34	34	34	17	9	18
150-200	12	19	37	37	37	19	9	18
200-250	13	20	40	40	40	20	10	21
250-300	14	21	43	43	43	21	10	21
300-350	15	22	45	45	45	22	11	23
350-400	16	23	47	47	47	23	11	23
400-450	16	24	49	49	49	24	12	25
450-500	17	25	50	50	50	25	12	25
500-550	17	26	52	52	52	26	14	32
550-600	18	27	54	54	54	27	14	32
600-650	18	28	55	55	55	28	14	32
650-700	19	28	56	56	56	28	14	32
700-750	19	29	58	58	58	29	14	32
750-800	20	29	59	59	59	29	14	32
800-850	20	30	60	60	60	30	14	32
850-900	20	31	61	61	61	31	14	32
900-950	21	31	62	62	62	31	14	32
950-1000	21	32	64	64	64	32	14	32
1000-1100	22	33	66	66	66	33	17	40
1100-1200	22	34	67	67	67	34	17	40
1200-1300	23	35	69	69	69	35	17	40
1300-1400	24	36	71	71	71	36	17	40
1400-1500	24	36	73	73	73	36	17	40
1500-1600	25	37	74	74	74	37	17	40
1600-1700	25	38	76	76	76	38	17	40
1700-1800	26	39	77	77	77	39	17	40
1800-1900	26	39	79	79	79	39	17	40
1900-2000	27	40	80	80	80	40	17	40
2000-3000	31	46	92	92	92	46	19	46
3000-4000	34	50	101	101	101	50	20	50
4000-5000	36	54	109	109	109	54	22	54
5000-10000	46	68	137	137	137	68	28	68

10000-15000	72	78	157	157	157	78	33	78
15000-20000	77	86	172	172	172	86	37	86
20000-25000	82	93	186	186	186	93	41	93
25000-30000	86	99	197	197	197	99	44	98
30000-40000	92	109	217	217	217	109	47	110
40000-50000	98	117	234	234	234	117	50	120
50000-60000	103	124	249	249	249	124	54	130
60000-70000	107	131	262	262	262	131	58	140
70000-80000	101	137	274	274	274	137	63	140
80000-90000	95	142	285	285	285	142	67	150
90000-100000	98	147	295	295	295	147	70	150

Table 11: Hazard Type 4 explosive

1 Quantity of explosives (kg)	2 Class A distance (m)	3 Class B distance (m)	4 Class C distance (m)	5 Class D distance (m)	6 Class E distance (m)	7 Class F distance (m)	8 Class G distance (m)	9 Class H distance (m)
0.1-250	0	0	0	0	0	0	9	11
250-300	1	1	1	1	1	1	9	11
300-340	1	1	2	2	2	1	9	11
340-370	1	2	3	3	3	2	9	11
370-400	1	2	4	4	4	2	9	11
400-450	2	3	5	5	5	3	9	11
450-500	2	3	6	6	6	3	9	11
500-550	2	4	7	7	7	4	9	12
550-650	3	5	9	9	9	5	9	12
650-700	3	5	10	10	10	5	9	12
700-750	4	6	11	11	11	6	9	12
750-800	4	6	12	12	12	6	9	12
800-900	4	7	13	13	13	7	9	12
900-950	5	7	14	14	14	7	9	12
950-1000	5	8	15	15	15	8	9	12
1000-1100	5	8	16	16	16	8	12	19
1100-1150	6	9	17	17	17	9	12	19
1150-1200	6	9	18	18	18	9	12	19
1200-1300	6	10	19	19	19	10	12	19
1300-1350	7	10	20	20	20	10	12	19

1350-1400	7	11	21	21	21	11	12	19
1400-1450	7	11	22	22	22	11	12	19
1450-1550	8	12	23	23	23	12	12	19
1550-1600	8	12	24	24	24	12	12	19
1600-1650	8	13	25	25	25	13	12	19
1650-1700	9	13	26	26	26	13	12	19
1700-1800	9	14	27	27	27	14	12	19
1800-1850	9	14	28	28	28	14	12	19
1850-1900	10	15	29	29	29	15	12	19
1900-2000	10	15	30	30	30	15	12	19
2000-3000	13	20	40	40	40	20	14	23
3000-4000	13	20	40	40	40	20	16	24
4000-5000	15	23	45	45	45	23	17	25
5000-10000	17	26	51	51	51	26	22	27
10000-15000	18	27	54	54	54	27	24	27
15000-20000	18	28	56	56	56	28	25	27
20000-25000	19	29	57	57	57	29	26	27
25000-30000	20	30	59	59	59	30	27	27
30000-40000	20	30	60	60	60	30	27	27
40000-50000	20	31	61	61	61	31	27	27
50000-60000	20	31	61	61	61	31	27	27
60000-70000	21	31	62	62	62	31	27	27
70000-80000	21	32	63	63	63	32	27	27
80000-90000	21	32	63	63	63	32	27	27
90000-10000021	32	64	64	64	64	32	27	27

Textual Amendments

F1 Words in Sch. 5 substituted (6.4.2015) by [The Mines Regulations 2014 \(S.I. 2014/3248\), reg. 1\(2\), Sch. 5 para. 18\(g\)](#) (with reg. 1(3))

Changes to legislation:

There are currently no known outstanding effects for the The Explosives Regulations 2014, SCHEDULE 5.