

**Table 1      Fireball Dimensions**

<b>Scenario</b>	<b>Fireball Radius (m)</b>
Fireball of LPG Storage Vessels	59.6
Fireball of LPG Road Tanker	58.1
BLEVE of LPG Road Tanker	62.5

**Table 2a Hazard Distance for LFL for LPG Dispersion (Daytime)**

Scenario	3B			1D			3D			6D			3D			6D		
	a(m)	b(m)	d(m)	a(m)	b(m)	d(m)	a(m)	b(m)	d(m)	a(m)	b(m)	d(m)	a(m)	b(m)	d(m)	a(m)	b(m)	d(m)
Cold Catastrophic Failure of Storage Vessels	229.6	453.4	0.8	377.7	456.8	0.9	433.2	430.0	0.9	423.5	371.7	0.9	502.4	399.5	0.9	648.0	340.3	0.9
Cold Partial Failure of Storage Vessels	28.8	3.3	1.3	54.7	4.2	1.2	28.9	3.5	1.3	28.3	2.6	1.3	57.4	4.3	1.1	56.8	5.2	1.2
Cold Catastrophic Failure of Road Tanker	229.6	453.4	0.8	377.7	456.8	0.9	433.2	430.0	0.9	423.5	371.7	0.9	502.4	399.5	0.9	648.0	340.3	0.9
Cold Partial Failure of Road Tanker	28.8	3.3	1.3	54.7	4.2	1.2	28.9	3.5	1.3	28.3	2.6	1.3	57.4	4.3	1.1	56.8	5.2	1.2
Guillotine Failure of Liquid filling Line to Vessel (fed from Tanker)	14.0	1.4	1.6	16.6	2.3	1.5	15.5	1.6	1.6	9.9	0.9	1.9	16.8	2.4	1.5	17.6	2.9	1.5
Guillotine Failure of Liquid filling Line to Vessel (fed from Vessel)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Guillotine Failure of Liquid Supply Line to Vaporiser	23.7	2.6	1.4	47.5	3.4	1.2	24.1	2.8	1.4	22.3	2.0	1.4	24.7	3.4	1.4	49.5	4.1	1.2
Guillotine Failure of Liquid Filling Line to Flexible Hose	23.7	2.6	1.4	47.5	3.4	1.2	24.1	2.8	1.4	22.3	2.0	1.4	24.7	3.4	1.4	49.5	4.1	1.2
Vaporiser Failure	23.7	2.6	1.4	47.5	3.4	1.2	24.1	2.8	1.4	22.3	2.0	1.4	24.7	3.4	1.4	49.5	4.1	1.2
Guillotine Failure of Flexible Hose (fed from Tanker)	4.2	0.5	3.2	10.5	1.3	1.9	6.6	0.6	2.4	0.2	0.0	49.6	10.2	1.3	1.9	11.5	1.8	1.8
Guillotine Failure of Flexible Hose (fed from Vessel)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note:

*a* - major semi-axis of the ellipse

*b* - minor semi-axis of the ellipse

*d* - relative downwind displacement of ellipse, basis on major semi-axis



**Table 3a Jet Flame Length for LPG Dispersion (Daytime)**

Scenario	1D			1F			2E			3B			3D			6D		
	a(m)	b(m)	d(m)	a(m)	b(m)	d(m)	a(m)	b(m)	d(m)	a(m)	b(m)	d(m)	a(m)	b(m)	d(m)	a(m)	b(m)	d(m)
Cold Partial Failure of Storage Vessels	21.6	12.7	1.1	21.6	12.7	1.1	20.5	13.5	1.0	19.2	14.0	1.0	19.2	14.0	1.0	17.5	14.4	1.0
Cold Partial Failure of Road Tanker	21.6	12.7	1.1	21.6	12.7	1.1	20.5	13.5	1.0	19.2	14.0	1.0	19.2	14.0	1.0	17.5	14.4	1.0
Guillotine Failure of Liquid filling Line to Vessel (fed from Tanker)	16.1	8.7	1.1	16.1	8.7	1.1	14.8	9.5	1.1	13.9	9.9	1.0	13.9	9.9	1.0	12.6	10.2	1.0
Guillotine Failure of Liquid filling Line to Vessel (fed from Vessel)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.6	2.5
Guillotine Failure of Liquid Supply Line to Vaporiser	20.4	11.3	1.1	20.4	11.3	1.1	18.7	12.2	1.0	17.5	12.7	1.0	17.5	12.7	1.0	16.0	13.1	1.0
Guillotine Failure of Liquid Filling Line to Flexible Hose	20.4	11.3	1.1	20.4	11.3	1.1	18.7	12.2	1.0	17.5	12.7	1.0	17.5	12.7	1.0	16.0	13.1	1.0
Vaporiser Failure	20.4	11.3	1.1	20.4	11.3	1.1	18.7	12.2	1.0	17.5	12.7	1.0	17.5	12.7	1.0	16.0	13.1	1.0
Guillotine Failure of Flexible Hose (fed from Tanker)	12.5	6.7	1.1	12.5	6.7	1.1	11.5	7.2	1.1	10.8	7.6	1.1	10.8	7.6	1.1	9.8	7.9	1.0
Guillotine Failure of Flexible Hose (fed from Vessel)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note:

*a* - major semi-axis of the ellipse

*b* - minor semi-axis of the ellipse

*d* - fractional displacement of the ellipse from the release point

**Table 3b Jet Flame Length for LPG Dispersion (Night-time)**

Scenario	1D			1F			2E			4D			6D		
	a(m)	b(m)	d(m)	a(m)	b(m)	d(m)	a(m)	b(m)	d(m)	a(m)	b(m)	d(m)	a(m)	b(m)	d(m)
Cold Partial Failure of Storage Vessels	21.6	12.7	1.1	21.6	12.7	1.1	18.4	14.2	1.0	19.2	14.0	1.0	17.5	14.4	1.0
Cold Partial Failure of Road Tanker	21.6	12.7	1.1	21.6	12.7	1.1	18.4	14.2	1.0	19.2	14.0	1.0	17.5	14.4	1.0
Guillotine Failure of Liquid filling Line to Vessel (fed from Tanker)	16.1	8.7	1.1	16.1	8.7	1.1	13.3	10.1	1.0	13.9	9.9	1.0	12.6	10.2	1.0
Guillotine Failure of Liquid filling Line to Vessel (fed from Vessel)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.6	2.5
Guillotine Failure of Liquid Supply Line to Vaporiser	20.4	11.3	1.1	20.4	11.3	1.1	16.7	12.9	1.0	17.5	12.7	1.0	16.0	13.1	1.0
Guillotine Failure of Liquid Filling Line to Flexible Hose	20.4	11.3	1.1	20.4	11.3	1.1	16.7	12.9	1.0	17.5	12.7	1.0	16.0	13.1	1.0
Vaporiser Failure	20.4	11.3	1.1	20.4	11.3	1.1	16.7	12.9	1.0	17.5	12.7	1.0	16.0	13.1	1.0
Guillotine Failure of Flexible Hose (fed from Tanker)	12.5	6.7	1.1	12.5	6.7	1.1	10.4	7.8	1.0	10.8	7.6	1.1	9.8	7.9	1.0
Guillotine Failure of Flexible Hose (fed from Vessel)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

*Note:*

*a - major semi-axis of the ellipse*

*b - minor semi-axis of the ellipse*

*d - fractional displacement of the ellipse from the release point*