



Safety Bulletin EM 385-1-1

Mobile District Safety and Occupational Health Office

Bulletin 54-09

Tree Maintenance and Removal – Electrical Voltages

The 15 September 2008 Safety Manual (yellow book) is now in effect for most new contracts and government operations. Please note the changes for tree maintenance and removal as stated below.

31.A.03f. Bucket Trucks and Aerial Lifts that are electrically rated above the electrical voltages of adjacent power lines are exempt from the 10 ft (3 m) rule, and can follow Table 11-3 if workers have been electrically qualified. Ladders on aerial lift devices may not be brought closer to an energized part than the distance listed in Table 11-3.

TABLE 11-3

AC Live Work Minimum Approach Distance

Voltage in kV (phase-to-phase) ^{1,2}	Distance to Employee			
	Phase-to-ground		Phase-to-phase	
	(m)	(ft-in)	(m)	(ft-in)
0 to 0.050	Not specified		Not specified	
0.051 to 0.300	Avoid contact		Avoid contact	
0.301 to 0.750	0.31	1-0	0.31	1-0
0.751 to 15	0.65	2-2	0.67	2-3
15.1 to 36.0	0.77	2-7	0.86	2-10
36.1 to 46	0.84	2-9	0.96	3-2
46.1 to 72.5	1.00 ³	3-3 ³	1.20	3-11
72.6 to 121	0.95 ³	3-2 ³	1.29	4-3
138 to 145	1.09	3-7	1.50	4-11
161 to 169	1.22	4-0	1.71	5-8
230 to 242	1.59	5-3	2.27	7-6
345 to 362	2.59	8-6	3.80	12-6
500 to 550	3.42	11-3	5.50	18-1
765 to 800	4.53	14-11	7.91	26-0

¹ For single-phase systems use the highest voltage available.

² For single-phase lines off three phase systems, use phase-to-phase voltage of the system.

³ The 46.1 to 72.5 kV phase-to-ground 3-3 (ft-in) distance contains a 1-3 (ft-in) electrical component and a 2-0 (ft-in) inadvertent movement component while the 72.6 to 121 kV phase-to-ground 3-2 (ft-in) distance contains a 2-0 (ft-in) electrical component and a 1-0 (ft-in) inadvertent movement component.