

PREVENTING HIGH-VOLTAGE LINE ACCIDENTS

Minimum Clearances. The company should prohibit the use of any equipment closer to high-voltage electric lines than the distances shown in Clearance Table A.

The minimum clearances in Table A apply in all directions, vertical and horizontal. They apply to the location of the equipment, not how it is operated. For example, special equipment should be used to limit crane movement if a crane is placed where the boom can move into the danger zone.

CLEARANCE TABLE A

Recommended Clearances From Overhead High-Voltage Lines

Voltage(Phase to Phase)	Minimum Clearance(Feet)
< - 50,000	10
50,000 - 75,000	11
75,000 - 125,000	13
125,000 - 175,000	15
175,000 - 250,000	17
250,000 - 370,000	21
370,000 - 550,000	27
550,000 - 1,000,000	42

General Provisions. The company should provide adequate safeguards before requiring or allowing any employee to work near high-voltage lines. Work that may require protection against accidental contact with high-voltage lines includes excavation, demolition, construction, structural repairs, house moving, well-drilling, pile-driving, and the use of scaffolding and hoisting equipment. Unless power has been turned off and lines visibly grounded, or effective barriers have been erected to keep workers and equipment a safe distance from the power lines, employers should:

Forbid employees to place, use or handle equipment or materials within the minimum clearances shown in Clearance Table A;

Prohibit transportation or movement of equipment or materials in such a way that any part of the equipment or materials can come closer to high-voltage lines than the minimum clearances in Clearance Table B (boom-type equipment with the boom lowered and unladen should conform to the clearances in Table A when in transit); and

Prohibit storage of equipment or materials near high-voltage lines if the storage would involve handling that might bring some part of the equipment or materials within the minimum clearances in Clearance Table A.

Sometimes high-voltage lines move because of strains placed on their supporting structures or attachments. Employers should see that such moves do not result in violations of minimum clearances.

Cage-type boom guards, boom stops, insulating links and proximity warning devices may be used on cranes. Their use, however, does not alter the minimum clearances recommended in Table A.

Consider any overhead wire "hot" until the owner of the line verifies that it is not energized, and until the line is visibly grounded at the work site.

CLEARANCE TABLE B

Recommended Clearances From Energized High-Voltage Conductors (While In Transit)

Voltage(Phase to Phase)	Minimum Clearance(Feet)
< - 50,000	4
50,000 - 345,000	10
45,000 - 750,000	16
750,000 - 1,000,000	20

Warning Signs. The responsible owner, agent or the company should see that an appropriate warning sign is in plain view of the operator and driver of every crane, derrick, power shovel, drilling rig, hay loader, hay stacker, pile driver or similar apparatus. It is important that the sign be durable and legible up to 12 feet away. It should say, "UNILAWFUL TO OPERATE THIS EQUIPMENT WITHIN 10 FEET OF HIGH-VOLTAGE LINES OF 50,000 VOLTS OR LESS". The sign should also say, in small lettering, "FOR MINIMUM CLEARANCES OF HIGH VOLTAGE LINES IN EXCESS OF 50,000 VOLTS, SEE HIGH-VOLTAGE ELECTRICAL SAFETY ORDERS .

Notification And Responsibility. The company should give the operator of a high voltage line adequate notice of work to be done, and make sure that the recommended safety measures are completed before allowing any work, equipment, or materials inside minimum clearance zones.

Safety Recommendations: _____

Job Specific Topics: _____

M.S.D.S Reviewed: _____

Attended By:
