# OSHA CFR 1910.269 Final Rule 2015

The MSA Guide to Changes & Solutions for Vertical Hazards in Power Generation, Transmission & Distribution





Because every life has a purpose...

OSHA 29 CFR 1910.269, *Electric Power Generation, Transmission, and Distribution* intends to reduce electrical hazard risk to workers, not only within the electric utility industry, but within other facilities that operate and maintain transmission and distribution systems. In 2014, OSHA (Occupational Safety and Health Administration) published the 1910.269 final rule revision to this 40-year-old standard to enhance clarity and reflect changing times. OSHA delayed compliance deadlines for certain requirements until 2015 and all are now in effect.

MSA provides solutions for issues and concerns of those who work on utility job sites and within industrial and other facilities where power system-related vertical hazards may be present. **Arc flash-rated head, eye, face, and fall protection products** are not only the smartest course of action; in many cases, these products are now required for employees who are determined to be at risk.

Some brief sections of the final rule that are relevant to those working within power generation, transmission and distribution systems have been quoted directly and are italicized within this bulletin.

#### Fall Protection

Two types of personal fall protection systems are addressed, personal fall arrest systems and positioning device systems.

- All employees must use appropriate fall protection when they climb or change location on poles, towers or similar structures. An exception is made when *use of fall protection is infeasible or creates a greater hazard than climbing or changing location without it.* The previous exemption allowing qualified employees to free-climb has been removed.
- Tethering, restraint or travel restricting systems are intended to hold workers in place, and consist of a body belt or body harness, anchorage, connectors, and other needed equipment.
- Fall arrest equipment must be able to pass a drop test after arc exposure with heat energy of 40±5 cal/cm<sup>2</sup> if workers using the equipment are exposed to flames or electric arc hazards.
- Work-positioning equipment must be rigged so that workers can free fall no more than two feet (0.6 meters).

#### **Protection from Electric Arc Hazards**

Requirements are now in place for arc-rated fall protection equipment. Employers must assess workplaces to determine those workers who are exposed to electric arc hazards.

- Fall protection personal protective equipment may be subject to arc flash exposure, potentially resulting in burns to workers from melted webbing and compromised fall arrest capability unless the equipment has been designed to withstand arc flash.
- Employers must estimate incident heat energy of arc hazards to which workers would be exposed, and must provide those workers with protective clothing and other protective equipment with an arc rating greater than or equal to the estimated heat energy.
- Employers must ensure that employees who are exposed to electric arc hazards do not wear clothing that can melt onto skin or ignite and continue to burn when exposed to the arc flash.

#### Conductivity

A subject that is prone to potential confusion for users of arc flash fall protection equipment is *conductivity*, a separate safety concern from that of arc flash protection. Arc flash products are designed to resist high heat and energy. Conductivity concerns a product's ability to conduct electricity. Common methods used to reduce conductivity of personal protective equipment include use of hardware coated with PVC, thereby insulating metal hardware away from workers. However, this practice may not eliminate all risk. Neither OSHA nor ASTM F887 address electrical conductivity of fall protection equipment as no formal test method exists. Workers must also maintain minimum approach distances to prevent workers from contact with energized sources. As a result, exposed metal components such as D-rings and buckles used on arc flash fall arrest equipment are still common in the industry.



## MSA's Product Guide to Implementing Your Workplace Changes

The answers you need for compliance with OSHA's final rule.

OSHA 29 CFR 1910.269 Changes for Power System Vertical Hazards	MSA Solutions
Arc flash-rated head, eye, face, and fall protection is required for arc flash-related hazardous work done at heights, from lifts or structures.	MSA <b>arc flash-rated head, eye, face, and fall protection</b> <b>products</b> help to ensure that you're protected from burns, as well as from compromised fall arrest capability.
Workers can no longer free-climb without demonstrating infeasibility/or greater hazard.	MSA provides <b>an array of personal fall arrest systems</b> , including vertical climbing and restraint systems.
The term <i>flame resistance</i> is used in reference to clothing and not fall protection. OSHA does not provide any specific requirements for flame resistant clothing but industry standards such as NFPA 2112 do. However, OSHA does give specific requirements for arc-rated fall protection equipment in that it must pass a drop test after exposure to a 40 cal/cm <sup>2</sup> arc flash. This test is also covered by certification to ASTM F887.	All MSA arc flash-rated fall protection is certified to ASTM F887. Not all fall protection manufacturers offer fall protection products that are tested or certified to this requirement.



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**Additional Compliance Information.** Other changes include **training**, as qualified workers must be able to recognize and control or avoid electrical hazards present at the worksite. Risk to workers for specific hazards determines the level of training required. **Host employers and contractors** must share safety-related information and coordinate their work rules and procedures. Differences between OSHA's rules for general industry and for construction have been streamlined to be much more consistent.

MSA provides Fall Protection Competent Person training that can be customized to OSHA CFR 1910.269 to include requirements and equipment used by workers in power generation, transmission and distribution systems. MSA can also perform site analyses or demonstrations to help determine and solve potential electrical hazards.

The final rule is likely to produce higher levels of worker safety by reducing the number of electrical shocks, burns, falls from heights, and other accidents, injuries and deaths associated with power generation, transmission and distribution. This bulletin is intended as an overview; please visit www.osha.gov/dsg/power\_generation/ to review OSHA CFR 1910.269 in full.

### **Related Resources**

*Training Requirements in OSHA Standards and Training Guidelines, Voluntary Training Guidelines, Section III*, to assess employee risk to electrical hazards including electrical shock, arc flash or arc blast.

OSHA 1910.269 Appendix E – Protection from Flames and Electric Arcs for guidance as to estimating available heat energy.

For more information regarding MSA arc flash-rated head, eye, face, and fall protection products, visit www.MSAsafety.com or contact MSA Customer Service at 1-800-MSA-2222.

Note: This Bulletin contains only a general description of the products shown. While uses and performance capabilities are described, under no circumstances shall the products be used by untrained or unqualified individuals and not until the product instructions including any warnings or cautions provided have been thoroughly read and understood. Only they contain the complete and detailed information concerning proper use and



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care of these products.

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