CHERIE K. BERRY
COMMISSIONER

KEVIN BEAUREGARD
ASSISTANT DEPUTY COMMISSIONER
OCCUPATIONAL SAFETY AND HEALTH DIVISION

MEMO

To: OSH Division

From: Kevin Beauregard, Assistant Deputy Commissioner

Date: May 20, 2015

Re: Electric Power Generation, Transmission, and Distribution (29 CFR 1910.269 and 29 CFR Part 1926, Subpart V)

On April 11, 2014, OSHA promulgated a final rule revising the general industry and construction standards for work on electric power generation, transmission and distribution installations (29 CFR 1910.269 and 29 CFR 1926, Subpart V). The Edison Electric Institute (EEI), the Utility Line Clearance Coalition (ULCC) and the Tree Care Industry Association (TCIA) did not agree with all the revisions to these standards and they subsequently filed petitions for a review of the standards that were consolidated in the U.S. Court of Appeals, DC Circuit. On February 13, 2015, OSHA, EEI, ULCC, and TCIA reached a settlement agreement associated with the revisions to the standards. EEI, ULCC and TCIA agreed to withdraw their petitions for review and in exchange OSHA agreed to promulgate corrective amendments to the electric power generation, transmission and distribution installations standards to address their concerns. OSHA also agreed to issue a question and answer guidance documents and several memorandums that contained clarifications on the standards. This guidance will remain in place until corrective amendments to the standards are completed. The questions and answers and memorandums are included in the settlement agreement as Exhibits A-D. Following the agreement, OSHA issued dated copies of these documents for their staff. On April 2, 2015, OSHA also issued another memorandum to their staff that provides additional enforcement guidance associated with these standards and flame resistant clothing requirements. Per this memorandum, the NCDOL OSH Division adopts the above mentioned settlement agreement and the guidance documents listed below:

- Exhibit A: Questions and Answers on 29 CFR 1910.269 and 29 CFR Part 1926, Subpart V
- Exhibit B: Memorandum - 29 CFR 1910.269 and 29 CFR Part 1926, Subpart V- Fall Protection, issued February 18, 2015
- Exhibit C: Memorandum - 29 CFR 1910.269 and 29 CFR Part 1926, Subpart V- Enforcement Dates, issued February 18, 2015
- Exhibit D: Memorandum - Clarification Of The Applicability Of 29 CFR 1910.269 To Line-Clearance Tree Trimming, issued February 18, 2015

In addition, OSH will also follow directions given in the attached Memorandum - 29 CFR 1910.269 and 29 CFR Part 1926, Subpart V: Flame Resistant Clothing And Arc-Rated Protection, issued April 2, 2015.

U.S. Department of Labor

Occupational Safety and Health Administration
Washington, D.C. 20210

Reply to the attention of:

FEB 13 2015

MEMORANDUM FOR: REGIONAL ADMINISTRATORS

FROM: DOROTHY DOUGHERTY
DEPUTY ASSISTANT SECRETARY

THOMAS GALASSI
DIRECTOR, DIRECTORATE OF
ENFORCEMENT PROGRAMS

JAMES MADDUX
DIRECTOR, DIRECTORATE OF
CONSTRUCTION

SUBJECT: 29 CFR 1910.269 and 29 CFR Part 1926, Subpart V– Fall protection

On April 11, 2014, OSHA promulgated a final rule revising 29 CFR 1910.269 and 29 CFR Part 1926, Subpart V, the general industry and construction standards for work on electric power generation, transmission and distribution installations. This memorandum establishes enforcement policies for some of the fall protection requirements applicable to work covered by 29 CFR 1910.269 and 29 CFR Part 1926, Subpart V. The policies stated in this memorandum are based on OSHA's understanding of the specific conditions present during electric power generation, transmission, and distribution work and thus do not apply to work outside the scope of 29 CFR 1910.269 and 29 CFR Part 1926, Subpart V.

A. Fall Protection in Aerial Lifts

Under 29 CFR 1910.269(g)(2)(iv)(C)(1) and 29 CFR 1926.954(b)(3)(iii)(A), employees working from aerial lifts must use either a fall restraint system or a personal fall arrest system. OSHA is not aware of any fall restraint systems available today that can be used in a bucket-type aerial lift that does not have an anchorage built into the bucket. Thus, the Agency expects that for employers to meet the requirements in the standards, they will have employees working from such aerial lift buckets using fall arrest equipment. Paragraph (g)(2)(i) of 29 CFR 1910.269 and paragraph (b)(1)(i) of 29 CFR 1926.954 require that personal fall arrest systems meet the requirements of Subpart M of Part 1926. Furthermore, 29 CFR 1910.269(g)(2)(iv)(B) and 29 CFR 1926.954(b)(3)(ii) specifically provide that personal fall arrest systems must be used in accordance with section 1926.502(d) in Subpart M, which specifies, in part, that personal fall

arrest systems must "be rigged such that an employee can neither free fall more than 6 feet (1.8m), nor contact any lower level." (See 29 CFR 1926.502(d)(16)(iii).)

OSHA requires employers to ensure that employees in aerial lifts are fully protected from falls while the aerial lift bucket or platform is moving or in a stationary position at any height at which work subject to 29 CFR 1910.269 or 29 CFR Part 1926, Subpart V, is to be performed. Except as specifically provided in the following enforcement policies, any fall arrest system used to protect employees must comply fully with the requirements of Subpart M, including the requirement, in 29 CFR 1926.502(d)(16)(iii), that the fall arrest system be rigged to prevent the employee from contacting any lower level. Note that in separate guidance, OSHA has clarified that the Agency does not treat tree branches or utility line conductors or cables as lower levels for purposes of 29 CFR 1926.502(d)(16)(iii).

Until further notice, for work covered by 29 CFR 1910.269 and 29 CFR Part 1926, Subpart V, the following enforcement policies apply to any bucket-type aerial lift that does not have a suitable anchorage built into the bucket.

1. **No citation will be issued under 29 CFR 1910.269, 29 CFR Part 1926, Subpart V, or 29 CFR 1926.502(d)(16)(iii), because a fall arrest system being used by an employee in a bucket-type aerial lift could permit the employee to contact a lower level while the bucket is ascending from the cradle position to a working level or descending from a working level to the cradle position provided:**
    a) **The fall arrest system complies in all other respects with 29 CFR Part 1926, Subpart M; and**
    b) **The aerial lift is parked with the brakes set and with the outriggers extended as required by 29 CFR 1910.269(p)(2) and 29 CFR 1926.959(b); and**
    c) **The employer has taken reasonable precautions to address any ejection hazards present that could result in injury to the employee in the bucket during this ascent and descent. (For any aerial lift positioned in an active roadway, reasonable precautions to address ejection hazards include the precautions described in the Manual on Uniform Traffic Control Devices for Streets and Highways, Chapter 6 (Temporary Traffic Control), 2009 edition, including Revisions 1 and 2 dated May 2012, published by the Federal Highway Administration. See also 29 CFR 1910.269(w)(6) and 29 CFR 1926.967(g).)**

2. **No citation will be issued under 29 CFR 1910.269, 29 CFR Part 1926, Subpart V, or 29 CFR 1926.502(d)(16)(iii), because a fall arrest system being used by an employee in a bucket-type aerial lift could permit the employee to strike a structure in the event of a fall provided:**
    a) **The employer can demonstrate that it is not possible (considering factors such as the location of the anchorage and the employee's need to move**

around the bucket) to perform the work using a bucket position and fully compliant fall arrest equipment that together would prevent the employee from striking a structure in the event of a fall;

b) **The fall arrest system complies in all other respects with 29 CFR Part 1926, Subpart M;**

c) **The aerial lift is parked with the brakes set and outriggers extended; and**

d) **The employer has taken other reasonable precautions to address any ejection hazards present that could result in injury to the employee in the bucket while the employee is above the structure. (For any aerial lift positioned in an active roadway, reasonable precautions to address ejection hazards include the precautions described in the Manual on Uniform Traffic Control Devices for Streets and Highways, Chapter 6 (Temporary Traffic Control), 2009 edition, including Revisions 1 and 2 dated May 2012, published by the Federal Highway Administration. See also 29 CFR 1910.269(w)(6) and 29 CFR 1926.967(g).)**

3. **For work covered by 29 CFR 1910.269, no citations related to fall protection in aerial lifts will be issued under 29 CFR 1910.132.**

OSHA believes that developing technology will eventually permit more employers doing work covered by 29 CFR 1910.269 and 29 CFR Part 1926, Subpart V to use fall restraint systems in bucket-type aerial lifts. In particular, OSHA is aware that manufacturers of this type of aerial lift are developing buckets with built-in anchorages and that manufacturers of fall protection equipment are developing fall restraint systems that can be used in buckets that do not have built-in anchorages. Thus, OSHA believes that suitable fall restraint systems will eventually become a common practice for protecting employees in bucket-type aerial lifts from falls in all situations, including during ascent and descent and while the bucket is over a structure. Moreover, OSHA recommends that employees using fall arrest systems in any bucket-type or other aerial lifts use the shortest lanyard practicable during ascent and descent, and when working over structures, to maximize worker protection. OSHA intends to monitor the development of fall protection technology for bucket-type aerial lifts and may modify these policies, or adopt additional guidance, in the future.

B. Fall Protection for Work on Towers

Paragraph (g)(2)(iv)(C)(2) of 29 CFR 1910.269 and paragraph (b)(3)(iii)(B) of 29 CFR 1926.954 generally provide that employees in elevated locations more than 1.2 meters (4 feet) above the ground on poles, towers, or similar structures use a personal fall arrest system, work-positioning equipment, or fall restraint system, as appropriate. Paragraph (g)(2)(i) of 29 CFR 1910.269 and paragraph (b)(1)(i) of 29 CFR 1926.954 require that personal fall arrest systems meet the requirements of Subpart M of 29 CFR Part 1926. Furthermore, 29 CFR 1910.269(g)(2)(iv)(B)

and 29 CFR 1926.954(b)(3)(ii) specifically provide that personal fall arrest systems must be used in accordance with 29 CFR 1926.502(d) in Subpart M, which specifies that personal fall arrest systems must "be rigged such that an employee can neither free fall more than 6 feet (1.8m), nor contact any lower level." (See 29 CFR 1926.502(d)(16)(iii).)

Until further notice, no citation will be issued under 29 CFR 1910.269, 29 CFR Part 1926, Subpart V, or 29 CFR 1926.502(d)(16)(iii), because a fall arrest system being used by an employee working on a tower could, in the event of a fall, permit the employee to strike a tower arm that is a lower level, provided:

a) **The employer can demonstrate that it is not possible to perform the work using a work position and fully compliant fall protection equipment that together would prevent the employee from striking the tower arm in the event of a fall; and**
b) **The fall arrest system complies in all other respects with 29 CFR Part 1926, Subpart M.**

C. National Office Resources

Questions regarding these policies should be forwarded through the Regional Office to the Directorate of Enforcement Programs or the Directorate of Construction, as appropriate.

U.S. Department of Labor

Occupational Safety and Health Administration
Washington, D.C. 20210

Reply to the attention of:

FEB 18 2015

MEMORANDUM FOR: REGIONAL ADMINISTRATORS

FROM: DOROTHY DOUGHERTY
DEPUTY ASSISTANT SECRETARY

THOMAS GALASSI
DIRECTOR, DIRECTORATE OF
ENFORCEMENT PROGRAMS

JAMES MADDUX
DIRECTOR, DIRECTORATE OF
CONSTRUCTION

SUBJECT: 29 CFR 1910.269 and 29 CFR Part 1926, Subpart V–Enforcement dates

Introduction

On April 11, 2014, OSHA promulgated a final rule revising the general industry and construction standards for work on electric power generation, transmission and distribution installations. The revised standards became effective on July 10, 2014, although some paragraphs have compliance deadlines in 2015.

A Memorandum for Regional Administrators, dated June 20, 2014, and extended on October 28, 2014, and again on December 16, 2014, established a temporary enforcement policy for 29 CFR 1910.269 and 29 CFR Part 1926, Subpart V; that policy provided that OSHA would accept compliance with the prior version of 29 CFR 1910.269 as compliance with revised 29 CFR 1910.269 and 29 CFR Part 1926, Subpart V. This memorandum revokes the temporary citation policy of June 20, 2014, as extended. OSHA will immediately begin enforcing all paragraphs of 29 CFR 1910.269 and 29 CFR Part 1926, Subpart V according to the compliance dates set forth in those rules, except as stated in this memorandum.

A. Training

OSHA is not adopting a general enforcement delay for the training provisions at 29 CFR 1910.269(a)(2) or 29 CFR 1926.950(b). However, the Agency will not cite employers for failing

to train employees in the work practices necessary to comply with the provisions addressed elsewhere in this memorandum until the Agency is enforcing those provisions.

B. Information Transfer

Until **June 30, 2015**, no citations will be issued to host employers (as defined at 29 CFR 1910.269(x) and 29 CFR 1926.968) under the information-transfer provisions at 29 CFR 1910.269(a)(3) and 29 CFR 1926.950(c), provided that after **April 30, 2015,** the employer can demonstrate that it is providing contract employers (as defined at 29 CFR 1910.269(x) and 29 CFR 1926.968) with the information, other than information on maximum switching-transient voltages, required by 29 CFR 1910.269(a)(3)(i)(A) and 29 CFR 1926.950(c)(1)(i).

Until **June 30, 2015**, no citations will be issued to contract employers (as defined at 29 CFR 1910.269(x) and 29 CFR 1926.968) under the information-transfer provisions at 29 CFR 1910.269(a)(3) and 29 CFR 1926.950(c).

C. Job Briefing

Until **April 30, 2015**, no citations will be issued under 29 CFR 1910.269(c)(1)(i) or 29 CFR 1926.952(a)(1), which require the employer to provide the employee in charge of the job with all available information that relates to the determination of existing characteristics and conditions.

D. Minimum Approach Distances

The standards give employers until **April 1, 2015**, to comply with revised minimum approach distances for voltages of 5.1 kilovolts and more. See 29 CFR 1910.269 (Table R-3, Note 4) and 29 CFR 1926.960 (Table V-2, Note 4).

Until **January 31, 2016**, for voltages of 169.1 kilovolts and more: (i) no citations will be issued under 29 CFR 1910.269(l)(3)(ii) or 29 CFR 1926.960(c)(1)(ii), which require the employer to determine the maximum anticipated per-unit transient overvoltage; and (ii) OSHA will accept compliance with the minimum approach distances in Table 6 or Tables 10 to 13 in Appendix B to 29 CFR 1910.269 as compliance with 29 CFR 1910.269(l)(3)(i) and 29 CFR 1926.960(c)(1)(i). If peer-reviewed guidance regarding the calculation of maximum transient overvoltages is not available before **May 1, 2015**, OSHA will extend this policy as necessary to give employers time to read and implement such guidance when it becomes available.

Until **January 31, 2016**, for voltages of 72.6 to 169.0 kilovolts, no citations will be issued under 29 CFR 1910.269(l)(3)(ii) or 29 CFR 1926.960(c)(1)(ii), which require the employer to determine the maximum anticipated per-unit transient overvoltage, provided the employer assumes a maximum anticipated per-unit transient overvoltage, phase-to-ground, of 3.0 per unit. If peer-reviewed guidance regarding the calculation of maximum transient overvoltages is not available before **May 1, 2015**, OSHA will extend this policy as necessary to give employers time to read and implement such guidance when it becomes available.

E. Estimates of Available Heat Energy

Until **March 31, 2015**, no citations will be issued under 29 CFR 1910.269(l)(8)(ii) or 29 CFR 1926.960(g)(2), which require the employer to make a reasonable estimate of the incident heat energy exposures faced by each employee exposed to electric arc hazards.

F. Flame Resistant Clothing

Under 29 CFR 1910.269(l)(8)(iv)(A) through (l)(8)(iv)(C) and 29 CFR 1926.960(g)(4)(i) through (g)(4)(iii), employers generally must ensure that the outer layer of clothing worn by an employee is flame resistant under certain conditions. Before **April 1, 2015**, no citations will be issued under 29 CFR 1910.269(l)(8)(iv)(A) through (l)(8)(iv)(C) or 29 CFR 1926.960(g)(4)(i) through (g)(4)(iii) for a failure to wear flame-resistant pants when employees are wearing 11-ounce or heaver weight cotton pants.

G. Arc-rated Protection

The standards give employers until **April 1, 2015**, to comply with 29 CFR 1910.269(l)(8)(v) or 29 CFR 1926.960(g)(5), which generally require employers to ensure that each employee exposed to hazards from electric arcs wears protective clothing and other protective equipment with an arc rating greater than or equal to the estimated heat energy to which he or she would be exposed.

Until **August 31, 2015**, no citations will be issued under 29 CFR 1910.269(l)(8)(v) or 29 CFR 1926.960(g)(5) because an employer failed to provide protective clothing or equipment rated higher than 8 cal/cm^2.

H. Fall Protection in Aerial Lifts

Until **March 31, 2015**, no citations will be issued under 29 CFR 1910.269(g)(2)(iv)(C)(1), which requires employees working from aerial lifts to use fall restraint systems or personal fall arrest systems, to any employer performing line-clearance tree-trimming work covered by 29 CFR 1910.269, provided that the employer ensures that each employee uses a body belt and lanyard attached to the boom or basket of the aerial lift.

From **March 31 to December 31, 2015**, no citations will be issued under 29 CFR 1910.269(g)(2)(iv)(C)(1) to any employer performing line-clearance tree-trimming work covered by 29 CFR 1910.269 provided that the employer is actively testing the use of fall restraint systems in the type of bucket at issue in some or all of its affected aerial lifts and provided the employer ensures that each employee not protected by a fall restraint system or a personal fall arrest system uses a body belt and lanyard attached to the boom of the aerial lift. For purposes of this policy, "actively testing" means that the employer, at a minimum, has coordinated with a manufacturer of fall restraint systems to select appropriate fall restraint equipment, is testing the use of that equipment in the field, and has provided training to affected crews regarding how to

use that equipment safely. This policy does not apply to types of aerial lift buckets for which the employer is not actively testing the use of fall restraint systems.

I. Fall Protection in Elevated Locations on Poles, Towers, or Similar Structures

Under 29 CFR 1910.269(g)(2)(iv)(C)(2) and (3) and 29 CFR 1926.954(b)(3)(iii)(B) and (C), employers generally must ensure that employees in elevated locations more than 1.2 meters (4 feet) above the ground on poles, towers, or similar structures use a personal fall arrest system, work-positioning equipment, or fall restraint system, as appropriate. (The standards provide that until **March 31, 2015**, qualified employees climbing or changing location on poles, towers, or similar structures do not need to use fall protection equipment unless conditions could cause the employee to lose his or her grip or footing.) Until **May 31, 2015**, no citations will be issued under 29 CFR 1910.269(g)(2)(iv)(C)(2) or (3) or 29 CFR 1926.954(b)(3)(iii)(B) or (C) to employers complying with the fall protection requirements in the version of 29 CFR 1910.269(g)(2)(v) that was in effect on April 11, 2014.

J. Underground Installations/Work in Manholes and Vaults

Until **February 28, 2015**, no citations will be issued under 29 CFR 1910.269(t)(5) through (t)(7) or 29 CFR 1926.965(f) through (h), which address the movement of cables and protection against faults in underground electrical installations, provided the employer is in compliance with the requirements for underground electrical installations in the version of 29 CFR 1910.269(t)(5) through (t)(7) that was in effect on April 11, 2014.

U.S. Department of Labor

Occupational Safety and Health Administration
Washington, D.C. 20210

Reply to the attention of:

FEB 18 2015

MEMORANDUM FOR: REGIONAL ADMINISTRATORS

FROM: DOROTHY DOUGHERTY
DEPUTY ASSISTANT SECRETARY

THOMAS GALASSI
DIRECTOR, DIRECTORATE OF
ENFORCEMENT PROGRAMS

SUBJECT: Clarification of the applicability of 29 CFR 1910.269 to line-clearance tree trimming

The purpose of this memorandum is to clarify the extent to which 29 CFR 1910.269 applies to line-clearance tree trimming.

The general industry standard for work on electric power generation, transmission, and distribution installations, 29 CFR 1910.269, contains requirements applicable to line-clearance tree trimming. (See 29 CFR 1910.269(a)(1)(i)(E).) Line-clearance tree trimming is defined at 29 CFR 1910.269(x) as "[t]he pruning, trimming, repairing, maintaining, removing, or clearing of trees, or the cutting of brush, that is within the following distance of electric supply lines and equipment: (1) For voltages to ground of 50 kilovolts or less – 3.05 meters (10 feet); (2) For voltages to ground of more than 50 kilovolts – 3.05 meters (10 feet) plus 0.10 meters (4 inches) for every 10 kilovolts over 50 kilovolts." The only line-clearance tree trimming OSHA intended to cover under 29 CFR 1910.269 is line-clearance tree trimming performed: (1) for the purpose of clearing space around electric power generation, transmission, or distribution lines or equipment and (2) on behalf of an organization that operates, or that controls the operating procedures for, those lines or equipment. Tree trimming performed on behalf of a homeowner or commercial entity other than an organization that operates, or that controls the operating procedures for, electric power generation, transmission, or distribution lines or equipment is not directly associated with an electric power generation, transmission, or distribution installation and is not covered by 29 CFR 1910.269. In addition, tree trimming that is not for the purpose of clearing space around electric power generation, transmission, or distribution lines or equipment is not directly associated with an electric power generation, transmission, or distribution installation and is not covered by 29 CFR 1910.269.

OSHA intends to issue a correcting amendment to clarify what line-clearance tree trimming work falls within the scope of 29 CFR 1910.269. In the interim, no citations will be issued under 29 CFR 1910.269 with respect to any line-clearance tree trimming that is not done both for the purpose of clearing space around electric power generation, transmission, or distribution lines or

equipment and on behalf of an organization that operates, or that controls the operating procedures for, those lines or equipment. However, citations may be issued in the interim under any other standards that apply to such line-clearance tree trimming work. Such standards may include 29 CFR 1910.268 or 29 CFR 1910.331 through 1910.335.

Please share this information with the State Plans and On-Site Consultation Projects in your Region. If you have any questions regarding application of this memorandum, please contact Sherman Williamson in the Directorate of Enforcement Programs.

U.S. Department of Labor

Occupational Safety and Health Administration
Washington, D.C. 20210

Reply to the attention of:

APR 2 2015

MEMORANDUM FOR: REGIONAL ADMINISTRATORS

THROUGH: DOROTHY DOUGHERTY
Deputy Assistant Secretary

FROM: THOMAS GALASSI, Director
Directorate of Enforcement Programs

JIM MADDUX, Director
Directorate of Construction

SUBJECT: 29 CFR 1910.269 and 29 CFR Part 1926, Subpart V: Flame Resistant Clothing and Arc-rated Protection

INTRODUCTION

On April 11, 2014, OSHA promulgated a final rule revising the general industry and construction standards for work on electric power generation, transmission and distribution installations (29 CFR 1910.269 and 29 CFR Part 1926, Subpart V, respectively). The revised standards became effective on July 10, 2014, although some paragraphs have compliance deadlines in 2015. OSHA is presently enforcing all paragraphs of 29 CFR 1910.269 and 29 CFR Part 1926, Subpart V according to the compliance dates set forth in those rules, except as stated in the Agency's Enforcement Date Memorandum issued on February 18, 2015.

This memorandum establishes enforcement policies for some of the requirements for flame resistant clothing and arc-rated protection applicable to work covered by 29 CFR 1910.269 and 29 CFR Part 1926, Subpart V.

BACKGROUND

Estimates of Available Heat Energy - Paragraph (l)(8)(ii) of 29 CFR 1910.269 and paragraph (g)(2) of 29 CFR 1926.960 require employers to make reasonable estimates of the incident heat energy exposures faced by employees exposed to electric arc hazards.

Flame Resistant Clothing - Under 29 CFR 1910.269(l)(8)(iv)(A) through (l)(8)(iv)(D) and 29 CFR 1926.960(g)(4)(i) through (g)(4)(iv), employers generally must ensure that the outer layer of clothing worn by employees is flame resistant under certain conditions.

Arc-rated Protection – Paragraph (l)(8)(v) of 29 CFR 1910.269 and paragraph (g)(5) of 29 CFR 1926.960 generally require employers to ensure that each employee exposed to hazards from

electric arcs wears protective clothing and other protective equipment with an arc rating greater than or equal to the estimated heat energy to which he or she would be exposed. The Enforcement Date Memorandum provides that until August 31, 2015, no citations will be issued under 29 CFR 1910.269(l)(8)(v) or 29 CFR 1926.960(g)(5) because an employer failed to provide protective clothing or equipment rated higher than 8 cal/cm^2.

ENFORCEMENT POLICIES

1. Through **August 31, 2015**, no citations will be issued under 29 CFR 1910.269(l)(8)(iv)(A) through (l)(8)(iv)(D) or 29 CFR 1926.960(g)(4)(i) through (g)(4)(iv) for failing to have employees wear flame-resistant pants if the employees are wearing 11-ounce or heavier weight cotton pants and the employer can demonstrate that it has contacted its supplier and placed an order for the required pants and that the pants are on back order or are in the process of being shipped and delivered. For this policy to apply, the employer must be able to provide OSHA with documentation of the purchase order and the date by which it expects to receive the clothing.

2. Through **August 31, 2015**, no citations will be issued under 29 CFR 1910.269(l)(8)(v) or 29 CFR 1926.960(g)(5) for failing to have employees wear or use protective clothing or other protective equipment with an appropriate arc rating if the employer can demonstrate that it has contacted its supplier and placed an order for the required clothing or equipment and that the clothing or equipment is on back order or is in the process of being shipped and delivered. For this policy to apply, the employer must be able to provide OSHA with documentation of the purchase order and the date by which it expects to receive the clothing or equipment.

3. Through **August 31, 2015**, if a contract employer (as defined at 29 CFR 1910.269(x) and 29 CFR 1926.968) can demonstrate that it has not received information it needs from a host employer (as defined at 29 CFR 1910.269(x) and 29 CFR 1926.968) to make reasonable estimates of incident heat energy exposures in accordance with 29 CFR 1910.269(l)(8)(ii) and 29 CFR 1926.960(g)(2), then the following policies will apply:

> (a) No citations will be issued to the contract employer under 29 CFR 1910.269(l)(8)(ii) or 29 CFR 1926.960(g)(2) for failing to do the required estimate of incident heat energy exposures;
>
> (b) No citations will be issued to the contract employer under 29 CFR 1910.269(l)(8)(iv)(A) through (l)(8)(iv)(D) or 29 CFR 1926.960(g)(4)(i) through (g)(4)(iv) for failing to have employees wear flame-resistant pants, provided employees are wearing 11-ounce or heavier weight cotton pants; and
>
> (c) No citations will be issued to the contract employer under 29 CFR 1910.269(l)(8)(v) or 29 CFR 1926.960(g)(5) for failing to have employees wear or use protective clothing or other protective equipment with an appropriate arc rating.

Please share this information with the State Plans and On-Site Consultation Projections in your Region. Questions regarding these policies should be forwarded through the Regional Office to the Directorate of Enforcement Programs or the Directorate of Construction, as appropriate.

IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

EDISON ELECTRIC INSTITUTE, Petitioner, v. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION, et al., Respondents.	)	Docket No. 14-1098

Consolidated with 14-1102, 14-1117

SETTLEMENT AGREEMENT

The parties to this Settlement Agreement are the Occupational Safety and Health Administration (OSHA), the Edison Electric Institute (EEI), the Utility Line Clearance Coalition (ULCC), and the Tree Care Industry Association (TCIA).

WHEREAS, On April 11, 2014, OSHA promulgated a final rule revising the general industry and construction standards for work on electric power generation, transmission, and distribution installations (the Standard) at 79 Fed. Reg. 20316;

WHEREAS, EEI filed a Petition for Review of the Standard in the United States Court of Appeals for the District of Columbia Circuit (Case No. 14-1098);

WHEREAS, ULCC filed a Petition for Review of the Standard in the United States Court of Appeals for the District of Columbia Circuit (Case No. 14-1102);

WHEREAS, TCIA filed a Petition for Review of the Standard in the United States Court of Appeals for the First Circuit (Case No. 14-1630), which was transferred to the United States Court of Appeals for the District of Columbia Circuit (Case No. 14-1117);

WHEREAS, the United States Court of Appeals for the District of Columbia Circuit consolidated the petitions filed by EEI, ULCC, and TCIA;

NOW, THEREFORE, the parties to this Agreement do hereby agree to the following terms:

1. This Agreement will resolve all pending challenges to the Standard.

2. OSHA agrees that on or before February 20, 2015, it will issue the documents attached hereto as Exhibit A ("Questions and Answers on 29 CFR 1910.269 and 29 CFR Part 1926, Subpart V"), Exhibit B ("29 CFR 1910.269 and 29 CFR Part 1926, Subpart V– Fall protection"), Exhibit C ("29 CFR 1910.269 and 29 CFR Part 1926, Subpart V–Enforcement dates"), and Exhibit D ("Clarification of the applicability of 29 CFR 1910.269 to line-clearance tree trimming").

3. OSHA agrees that if, at any time after the signing of this Settlement Agreement, it plans to withdraw or revise any of the documents attached as Exhibit A, Exhibit B, and Exhibit C, it will first provide interested stakeholders, including the parties to this Agreement, an opportunity to provide input on the planned change.

4. OSHA agrees that upon the signing of this Settlement Agreement it will begin the process of promulgating a correcting amendment to clarify, in relevant part: (a) that work meeting the definition of line-clearance tree trimming at 29 CFR 1910.269(x) is covered by 29 CFR 1910.269 only to the extent it is done for the purpose of clearing space around electric power generation, transmission, or distribution lines or equipment and on behalf of an organization that operates, or that controls the operating procedures for, those lines or equipment; and (b) that the electrical safety-related work practices in 29 CFR 1910.331 through 1910.335 (Subpart S) may apply to line-clearance tree-trimming work near, but not directly associated with, electric power generation, transmission, or distribution installations. OSHA agrees to keep the document attached as Exhibit D in effect until such time as the correcting amendment is final and effective. If OSHA plans to revise that document, it will first provide interested stakeholders, including the parties to this Agreement, an opportunity to provide input on the planned change. In no event will OSHA revise Exhibit D to permit enforcement of 29 CFR

1910.269 with respect to line-clearance tree trimming that is not done both for the purpose of clearing space around electric power generation, transmission, or distribution lines or equipment and on behalf of an organization that operates, or that controls the operating procedures for, those lines or equipment.

5. EEI, ULCC, and TCIA agree to move to withdraw their petitions for review of the Standard within five calendar days after OSHA issues the documents attached hereto as Exhibit A, Exhibit B, Exhibit C, and Exhibit D.

6. Nothing in this Agreement constitutes an admission by any of the parties hereto for purposes of this litigation.

7. Each party agrees to bear its own attorneys' fees, costs, and other expenses that have been incurred in connection with the parties' petitions for review and the negotiation of this Agreement.

8. This Agreement constitutes the complete and exclusive statement of agreement between OSHA, EEI, ULCC, and TCIA with respect to the subject matter of this Agreement. All prior or contemporaneous statements, understandings, and agreements by and between the parties, whether written or oral, are deemed to be superseded by this Agreement.

Agreed to this 13th day of February, 2015.

Melissa A. Bailey
Counsel for EEI and ULCC
Ogletree, Deakins, Nash, Smoak & Stewart, P.C.
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Exhibit A

Questions and Answers on
29 CFR 1910.269 and 29 CFR Part 1926, Subpart V

Training

1. ***Background:***

Paragraph (a)(2)(i)(C) of 29 CFR 1910.269 and paragraph (b)(1)(iii) of 29 CFR 1926.950 provide that "[t]he degree of training shall be determined by the risk to the employee for the hazard involved."

Question (a):

What do these provisions require of employers?

Response (a):

The purpose of these training provisions is to ensure that an appropriate level of training is provided to employees. OSHA believes that these provisions will ensure that employers direct their training resources where they will provide the greatest benefit, while still making sure that all employees receive adequate training to protect them against the hazards they face in their jobs. Employees who face little risk in their job tasks need less training than those whose jobs expose them to more risk. Employers may follow the recommendations in OSHA's publication, "Training Requirements in OSHA Standards and Training Guidelines," Voluntary Training Guidelines, Section III, to determine the relative risk encountered by employees. That document provides that "[o]ne useful tool for determining training content from job requirements is the Job Hazard Analysis . . . . This procedure examines each step of a job, identifies existing or potential hazards, and determines the best way to perform the job in order to reduce or eliminate the hazards." An employer may allocate training resources in accordance with its own determination of relative risk, provided that each affected employee receives the minimum training required under 29 CFR 1910.269 or 29 CFR Part 1926, Subpart V, as applicable.

Question (b):

Does OSHA anticipate that these provisions will require employers to make significant changes to training programs developed when 29 CFR 1910.269 was originally promulgated in 1994?

Response (b):

OSHA does not expect these provisions to require employers to change training programs already provided under the prior version of 29 CFR 1910.269. Rather, the provisions provide employers with options to tailor their training programs and resources to employees with particularly high-risk jobs. The Agency notes, however, that employers

will need to update their existing training programs as necessary to ensure employees receive adequate training in all new or revised provisions in the versions of 29 CFR 1910.269 and 29 CFR Part 1926, Subpart V that were promulgated on April 11, 2014 (for example, the revised provisions on minimum approach distances and the new requirements for arc-rated protection).

2. ***Question:***

Is the employer required to train employees with regard to hazards that do not pertain to their job duties?

Response:

No. Paragraph (a)(2)(i)(A) of 29 CFR 1910.269 and paragraph (b)(1)(i) of 29 CFR 1926.950 require that "[e]ach employee . . . be trained in, and familiar with, the safety-related work practices, safety procedures, and other safety requirements in [29 CFR 1910.269 and 29 CFR Part 1926, Subpart V, respectively] that pertain to his or her job assignments." Consequently, employers are not required to train employees with regard to hazards that do not pertain to their job duties.

3. ***Question:***

What training is required under 29 CFR 1910.269 and 29 CFR Part 1926, Subpart V, for employees, such as vegetation management workers spraying for weeds (when that work is directly associated with, and not just near, a covered installation), who do not perform electrical work?

Response:

If an employee is not performing work covered by 29 CFR 1910.269 or 29 CFR Part 1926, Subpart V, the training provisions in those standards do not apply. Training for such work is governed by other applicable OSHA standards. If an employee is performing nonelectrical work covered by 29 CFR 1910.269 or 29 CFR Part 1926, Subpart V, but does not need to access areas, or perform tasks, restricted to qualified employees, the general training requirements for all employees apply. (See 29 CFR 1910.269(a)(2)(i) and 29 CFR 1926.950(b)(1).) If an employee is performing work covered by 29 CFR 1910.269 or 29 CFR Part 1926, Subpart V, and needs to access areas, or perform tasks restricted to qualified employees, the qualified employee training requirements also apply. (See 29 CFR 1910.269(a)(2)(ii) and 29 CFR 1926.950(b)(2).) Employers may train employees as qualified employees for the purposes of entering and working within restricted areas. While the training for these employees must meet 29 CFR 1910.269(a)(2)(ii) and 29 CFR 1926.950(b)(2), it need not be as comprehensive as the training normally provided to qualified electrical workers. These "qualified" (nonelectrical) employees must have the following minimum training:

- They must know what is safe to touch and what is not safe to touch in the specific areas they will be entering [29 CFR 1910.269(a)(2)(ii)(A) and 29 CFR 1926.950(b)(2)(i)];

- They must know what the maximum voltage of the area is [29 CFR 1910.269(a)(2)(ii)(B) and 29 CFR 1926.950(b)(2)(ii)];

- They must know the minimum approach distances for the maximum voltage within the area, and the skills and techniques necessary to maintain those distances [29 CFR 1910.269(a)(2)(ii)(C) and 29 CFR 1926.950(b)(2)(iii)];

- They must be trained in the recognition and proper use of protective equipment that will be used to provide protection for them and in the work practices necessary for performing their specific work assignments within the area [29 CFR 1910.269(a)(2)(ii)(D) and 29 CFR 1926.950(b)(2)(iv)] (only qualified electrical employees may install insulating equipment on energized parts); and

- They must be trained to recognize the electrical hazards to which they may be exposed and the skills and techniques necessary to control or avoid those hazards [29 CFR 1910.269(a)(2)(ii)(E) and 29 CFR 1926.950(b)(2)(v)].

Until these "qualified employees" have demonstrated proficiency in the work practices involved, they are considered to be employees undergoing on-the-job training and must be under the direct supervision of a qualified employee.

4. ***Question:***

Paragraph (a)(2)(vi) of 29 CFR 1910.269 and paragraph (b)(5) of 29 CFR 1926.950 require training to be "of the classroom or on-the-job type." Is computer-based training acceptable under these provisions?

Response:

OSHA has found classroom and on-the-job training to be the most effective forms of training because those training methods provide workers an opportunity to ask questions and have the trainer respond to them. Computer-based training (CBT) may be used in the following types of circumstances. First, CBT may be provided in any format that is as effective as traditional classroom training. To be as effective as classroom training, CBT must be interactive and participatory; workers must have an opportunity to ask questions, and have the trainer respond to the questions, during the training program. If the employee is able to ask questions and interact with the instructor, then CBT may serve the same function as traditional classroom training. Second, training materials may be distributed to employees electronically as part of, or as an introduction to, a classroom or on-the-job training program provided that employees have the opportunity to ask questions regarding the content of the materials during the classroom or on-the-job

portion of the training. For example, an employer may distribute initial orientation training materials on a particular topic by email or other electronic means and then give employees the opportunity to ask questions about the materials, and have those questions answered, during the classroom or on-the-job portion of the training.

5. ***Question:***

Paragraphs (a)(2)(vii) through (a)(2)(viii) of 29 CFR 1910.269 and paragraphs (b)(6) through (b)(7) of 29 CFR 1926.950 require employers to ensure that each employee has demonstrated proficiency in the work practices involved before that employee is considered as having completed required training. What are the acceptable methods of evaluating proficiency?

Response:

OSHA does not require employers to use any specific method to evaluate employee proficiency. Any method is acceptable as long as it is effective in evaluating whether each employee comprehends what has been taught and can perform the necessary work practices proficiently.

6. ***Question:***

Note 2 to 29 CFR 1910.269(a)(2)(viii) and Note 2 to 29 CFR 1926.950(b)(7) list three steps an employer may take to confirm that an employee who has previously been trained is proficient to perform the work. Is this three-step process mandatory?

Response:

No. The process described in the notes is not mandatory. The employer may use the three listed steps or any alternate means that confirm the employee has been trained and has demonstrated proficiency as required by 29 CFR 1910.269(a)(2)(viii) and 29 CFR 1926.950(b)(7).

7. ***Question:***

Employees may be certified by various organizations, including but not limited to the American Heart Association, the National Safety Council, or the Red Cross, to provide first aid, including cardiopulmonary resuscitation. These certifications are typically valid for 2 years. Paragraph (a)(2)(v)(C) of 29 CFR 1910.269 and paragraph (b)(4)(iii) of 29 CFR 1926.950 require retraining when an employee must use safety-related work practices that are not normally used during his or her regular job duties. Notes to those provisions provide that OSHA considers safety practices performed less often than once per year to necessitate retraining before the performance of the relevant work practices. Employees will often not perform first aid during a typical year. Is retraining or recertification required under those circumstances?

Response:

OSHA does not require the employee in this situation to be formally recertified in first aid. The retraining requirements in 29 CFR 1910.269(a)(2)(v)(C) and 29 CFR 1926.950(b)(4)(iii) are satisfied as long as the employee has an opportunity to refresh himself or herself on, and demonstrate proficiency in, appropriate first aid skills each year. Proficiency may be demonstrated through the completion of a written test, a verbal exchange between a supervisor and the employee, or any other method that demonstrates that the employee remembers and can use the fundamentals of the training that has been given. The demonstration of proficiency may take place during a tool box talk or safety meeting covering the fundamentals of the relevant skills.

Information Transfer

8. ***Question:***

Paragraph (a)(3)(i) of 29 CFR 1910.269 and paragraph (c)(1) of 29 CFR 1926.950 require the host employer to inform contract employers of certain information before work begins. For example, these provisions require the host employer to inform contract employers of the "characteristics of the host employer's installation that are related to the safety of the work to be performed" and are listed in 29 CFR 1910.269(a)(4)(i) through (a)(4)(v), and 29 CFR 1926.950(d)(1) through (d)(5), respectively. What methods may host employers use to transfer the required information?

Response:

OSHA does not specify how the required information is to be transferred. The Agency will deem it sufficient for the host employer to provide the necessary information, through any appropriate mechanism, to an authorized agent of the contractor. The mechanism used by the host employer to transfer required information to the contract employer could include providing information via a telephone call, email, or text message; including the information in the bid package or in the contract; providing information during an orientation session or meeting; or developing a Website or other computer program that the contract employer is directed to and can access to obtain the information. The Agency will deem a mechanism for transmitting information appropriate in a given circumstance as long as it effectively communicates the required information to the contract employer in a manner that enables the contract employer to pass the information to its employees and otherwise use the information to comply with the standards. Note that 29 CFR 1910.269(a)(3)(iii) and 29 CFR 1926.950(c)(3) require the contract employer and the host employer to coordinate their work rules and procedures so that each employee of the contract employer and each employee of the host employer is protected as required by the relevant standard. The coordination process must include communication about how the host employer and the contract employer will exchange information as required by 29 CFR 1910.269(a)(3) and 29 CFR 1926.950(c).

9. ***Background:***

Paragraph (a)(3)(i)(C) of 29 CFR 1910.269 and paragraph (c)(1)(iii) of 29 CFR 1926.950 require the host employer to provide the contract employer with "[i]nformation about the design and operation of the host employer's installation that the contract employer needs to make the assessments required by" 29 CFR 1910.269 and 29 CFR Part 1926, Subpart V, respectively, including the assessment necessary to calculate minimum approach distances at voltages over 72.5 kV in accordance with 29 CFR 1910.269(l)(3)(i) and 29 CFR 1926.960(c)(1)(i). In the preamble to the final rule (79 FR 20361), Table 2, *Assessments Required by Subpart V*, provides examples of the types of information to be provided under 29 CFR 1910.269(a)(3)(i)(C) and 29 CFR 1926.950(c)(1)(iii). With respect to the required assessment of minimum approach distances, the table states that the host employer should provide the contract employer information about the operating conditions for the value of the maximum transient overvoltage provided to the contract employer.

Question (a):

May a host employer specify the minimum approach distances the contract employer must follow when working at voltages over 72.5 kV instead of providing this information about operating conditions?

Response (a):

Yes, provided the host employer also informs the contract employer of prerequisites that the contract employer must meet for the minimum approach distances to be valid.

Question (b):

How does the response to part (a) of this question apply if the contract employer is performing line-clearance tree trimming work covered by 29 CFR 1910.269?

Response (b):

The response to part (a) of this question does not apply to line-clearance tree trimming work covered by 29 CFR 1910.269 because the assessment requirements in 29 CFR 1910.269(l) do not apply when line-clearance tree trimming is performed by line-clearance tree trimmers who are not qualified employees.

10. ***Question:***

Paragraph (a)(3)(ii) of 29 CFR 1910.269 and paragraph (c)(2) of 29 CFR 1926.950 require the contract employer to provide the host employer with certain information. What methods may the contract employer use to communicate the required information?

Response:

OSHA does not specify how the required information is to be transferred. The Agency will deem it sufficient for the contract employer to provide the necessary information, through any appropriate mechanism, to an authorized agent of the host employer. The mechanism used by the contract employer to transfer required information to the host employer could include providing information via a telephone call, email, or text message; including the information in a bid for a job or in other written materials; providing information during an orientation session or meeting; or developing a Website or other computer program that the host employer is directed to and can access to obtain the information. The Agency will deem a mechanism for transmitting information appropriate in a given circumstance as long as it effectively communicates the required information to the host employer in a manner that enables the host employer to pass the information to its employees and otherwise use the information to comply with the standards. Note that 29 CFR 1910.269(a)(3)(iii) and 29 CFR 1926.950(c)(3) require the contract employer and the host employer to coordinate their work rules and procedures so that each employee of the contract employer and each employee of the host employer is protected as required by the relevant standard. The coordination process must include communication about how the host employer and the contract employer will exchange information as required by 29 CFR 1910.269(a)(3) and 29 CFR 1926.950(c).

11. ***Question:***

Paragraph (a)(3)(ii)(C) of 29 CFR 1910.269 and paragraph (c)(2)(iii) of 29 CFR 1926.950 require the contract employer to "advise the host employer of any unanticipated hazardous conditions found during the contract employer's work that the host employer did not mention" under 29 CFR 1910.269(a)(3)(i) and 29 CFR 1926.950(c)(1), respectively. Is the term "unanticipated hazardous conditions" limited to conditions that relate to the electric lines and equipment?

Response:

OSHA uses the term "conditions," in 29 CFR 1910.269(a)(3)(ii)(C) and 29 CFR 1926.950(c)(2)(iii), to refer to conditions addressed in 29 CFR 1910.269(a)(4) and 29 CFR 1926.950(d), which cover "conditions of electric lines and equipment that are related to the safety of the work to be performed." Thus, hazards in the working environment are "conditions" that must be reported under 29 CFR 1910.269(a)(3)(ii)(C) and 29 CFR 1926.950(c)(2)(iii) only if they relate to electric lines and equipment.

12. ***Question:***

Paragraph (a)(3)(ii)(C) of 29 CFR 1910.269 and paragraph (c)(2)(iii) of 29 CFR 1926.950 require the contract employer to "advise the host employer of any unanticipated hazardous conditions found during the contract employer's work that the host employer did not mention" under 29 CFR 1910.269(a)(3)(i) and 29 CFR 1926.950(c)(1),

respectively. Are contract employers required to report hazardous conditions that they do not discover or recognize?

Response:

No. The reporting requirement is limited to hazardous conditions that contract employers discover during their work and recognize as hazards. However, OSHA expects that contract employers will generally be able to recognize hazards at the worksite to which their own employees may be exposed. If a contract employer fails to train employees to recognize the hazards relevant to the safety of their work, the Agency will cite the contract employer under applicable training provisions, not for a violation of the information-transfer provisions. OSHA notes that 29 CFR 1910.269(a)(3)(ii)(C) and 29 CFR 1926.950(c)(2)(iii) do not require contract employers to report to host employers hazards to which the contract employer's employees are not exposed. Nothing in the information-transfer provisions requires contract employers to perform worksite inspections intended to identify hazards that are not related to the safety of the work performed by their own employees.

13. ***Question:***

Paragraph (a)(3)(i) of 29 CFR 1910.269 and paragraph (c)(1) of 29 CFR 1926.950 require the host employer to inform contract employers of certain information before work begins. Per the definitions of "host employer" and "contract employer" in 29 CFR 1910.269(x) and 29 CFR 1926.968, the host employer will not necessarily have a direct contractual relationship with the contract employer. How are host employers required to transfer information to subcontractors with which they have no direct contractual relationship? May host employers mandate that contract employers transfer information to subcontractors before subcontractors begin their work?

Response:

OSHA realizes that 29 CFR 1910.269(a)(3)(i) and 29 CFR 1926.950(c)(1) will require some employers to exchange information with entities with which they have no direct contractual relationship. These employers may either exchange information directly with each other or may arrange to handle their information exchange through contacts with entities that do have contractual relationships with the other employer. For example, an electric utility transmitting information to an employer under contract to perform work on the installation could instruct (or contract for) that contractor to share the same information with any subcontractors hired to perform work under the contract. Ultimately, however, it is the host employer's responsibility to develop and implement procedures that are adequate to communicate the required information effectively to subcontractors that are contract employers under the standards in a manner that enables those employers to pass the information to their employees and otherwise use the information to comply with the standards. The host employer may establish centralized procedures that contract employers and subcontractor employers must use to obtain, or share, required information.

14. ***Question:***

Do the information-transfer provisions in 29 CFR 1910.269(a)(3) and 29 CFR 1926.950(c) apply to work that is outside the scope of 29 CFR 1910.269 and 29 CFR Part 1926, Subpart V?

Response:

No.

15. ***Question:***

Under 29 CFR 1910.269(a)(3)(i)(A) and (a)(3)(i)(B), and 29 CFR 1926.950(c)(1)(i) and (c)(1)(ii), which require host employers to inform contract employers about certain conditions and installation characteristics that relate to the safety of the work to be performed, may the host employer convey the required information through maps or through tagging or barricade systems?

Response:

OSHA does not specify how the required information is to be transferred. A host employer may be able to use tagging or barricade systems or maps to provide the necessary information to a contract employer as long as the host employer ensures that the contract employer has all of the information it needs to interpret the tagging or barricade systems or maps in question. For example, with respect to the condition of poles, the host employer may give the contract employer instructions for interpreting the tags that the host employer places on poles after they are inspected or may provide the contract employer with a map (and any instructions necessary to interpret the map) showing when each pole was inspected and describing the inspection results. Similarly, the host employer for a generating plant in shutdown or turnaround mode may give a contract employer instructions on how to interpret a tagging or barricade system that the host employer uses to indicate that certain equipment must not be accessed. (Note that the lockout-tagout provisions in 29 CFR 1910.269(d)(8)(iv) for outside servicing personnel may also apply in such situations.) In general, with regard to information concerning the characteristics of the system (set out in 29 CFR 1910.269(a)(4)(i) through (a)(4)(v) and 29 CFR 1926.950(d)(1) through (d)(5)), the host employer may supply that information on a map or similar document along with the information or guidance the contract employer needs to interpret the map or document. See the response to Question 8 under "Information Transfer" for additional guidance.

16. ***Question:***

Paragraph (a)(3)(i)(B) of 29 CFR 1910.269 and paragraph (c)(1)(ii) of 29 CFR 1926.950 provide that, before work begins, the host employer inform contract employers of certain known conditions that are related to the safety of the work to be performed and that are listed in 29 CFR 1910.269(a)(4)(vi) through (a)(4)(viii), and 29 CFR 1926.950(d)(6)

through (d)(8), respectively. These listed conditions include "[e]nvironmental conditions relating to safety" (see 29 CFR 1910.269(a)(4)(viii) and 29 CFR 1926.950(d)(8)). What does the term "environmental conditions" mean in this context?

Response:

Paragraph (a)(4) of 29 CFR 1910.269 and paragraph (d) of 29 CFR 1926.950 address only "characteristics and conditions of electric lines and equipment." Therefore, the host employer is required to inform contract employers of known safety-related environmental conditions only to the extent they relate to electric lines and equipment. For example, the host employer must inform the contract employer of known ground conditions that impact the stability of, or an employee's ability to safely climb, a pole. Similarly, in generating plants, the host employer is required to inform contract employers of the known presence of coal dust or fly ash to the extent the presence of those substances relate to electric lines or equipment. The information-transfer provisions do not require host employers to provide information about environmental conditions that do not both affect worker safety and relate to electric lines and equipment.

17. ***Background:***

The following questions address the transfer of information between host employers and contract employers during emergency situations.

Question (a):

During an emergency (for example, following a major storm), does the host employer need to use the same methods of providing information to contract employers that it uses in other, nonemergency, situations?

Response (a):

No. OSHA does not specify how the required information is to be transferred. Host employers do not need to follow the same procedure in every situation. For example, a host employer may follow different information transfer procedures during restoration work following a storm. In all situations, OSHA will deem it sufficient for the host employer to provide the necessary information through any appropriate mechanism to an authorized agent of the contact employer. A communication method is appropriate as long as it effectively communicates the required information to the contract employer. See the response to Question 8 under "Information Transfer" for additional guidance.

Question (b):

Does the information the host employer must provide to the contract employer vary depending on whether the work is done in normal circumstances or during an emergency?

Response (b):

No. OSHA requires the host employer to provide the contract employer with information that is related to the safety of the work to be performed during both emergency and nonemergency work. However, certain information may be related to the safety of work performed in typical nonemergency conditions, but not to the safety of work performed in an emergency. For example, information regarding the condition of poles may not be related to the safety of the work to be performed in an emergency situation in which the poles were knocked down by a storm.

Question (c):

In emergency situations, how quickly must the host employer relay new or changing information to the contact employer?

Response (c):

OSHA recognizes that conditions may change rapidly during restoration work after an emergency and that information about the status of the system is relayed to the host employer by multiple sources. The host employer must engage in reasonable efforts to transmit required information to contract employers as quickly as practicable after it becomes available. The Agency emphasizes that during storm or emergency restoration efforts, it is particularly important for host employers and contract employers to keep employees informed through thorough job briefings pursuant to 29 CFR 1910.269(c) and 29 CFR 1926.952 and through other appropriate mechanisms, such as using designated points of contact between the host employer and contract employers.

18. ***Question:***

Paragraph (l)(8)(ii) of 29 CFR 1910.269 and paragraph (g)(2) of 29 CFR 1926.960 require that, for each employee exposed to hazards from electric arcs, the employer make a reasonable estimate of the incident heat energy to which the employee would be exposed. Moreover, 29 CFR 1910.269(a)(3)(i)(C) and 29 CFR 1926.950(c)(1)(iii) provide that, before work begins, the host employer inform contract employers of information about the design and operation of the host employer's installation that the contract employer needs to make required assessments. In the preamble to the 29 CFR 1910.269 and 29 CFR Part 1926, Subpart V final rule, OSHA listed information that the Agency anticipates contractors will need to perform required assessments, including information on "[t]he electrical parameters needed to calculate incident energy, such as maximum fault current, bus spacings, and clearing times" [79 FR 20361]. Rather than providing this information to the contract employer so the contract employer may estimate incident heat energy exposures, may a host employer estimate the incident heat energy to which the contract employer's employees will be exposed and provide the contract employer with the results of that analysis or inform the contract employer that exposures will fall below a specified level?

Response:

Yes, provided those estimates are valid for all working conditions to which the contractor employer's employees will be exposed.

Job Briefing

19. ***Question:***

Which employees may serve as the employee in charge for purposes of the job briefing provisions at 29 CFR 1910.269(c) and 29 CFR 1926.952?

Response:

The employee in charge is the designated individual who oversees the work as it is being performed. The employee in charge must be in control of the work, but he or she does not need to have any particular job title. For example, the employee in charge may be the lead person on the work crew.

20. ***Question:***

Paragraph (c)(1)(i) of 29 CFR 1910.269 and paragraph (a)(1) of 29 CFR 1926.952 require that before each job, an employer "assigning an employee or a group of employees to perform a job . . . provide the employee in charge of the job with all available information that relates to the determination of existing characteristics and conditions" required by 29 CFR 1910.269(a)(4) and 29 CFR 1926.950(d), respectively. Does a communication about the existing system characteristics listed in 29 CFR 1910.269(a)(4)(i) through (a)(4)(v) and 29 CFR 1926.950(d)(1) through (d)(5) made to the employee in charge before the day the job is performed constitute an effective communication? May the employer use maps or tagging programs to communicate required information about the known existing conditions listed in 29 CFR 1910.269(a)(4)(vi) through (a)(4)(viii) and 29 CFR 1926.950(d)(6) through (d)(8) to the employee in charge?

Response:

Paragraph (c)(1)(i) of 29 CFR 1910.269 and paragraph (a)(1) of 29 CFR 1926.952 require the employer to provide the required information in connection with each job. The information must be communicated to the employee in charge in an effective manner. Whether a prior communication made during the course of a project constitutes an effective communication for any given job depends on several factors, such as, but not limited to: the time between the prior communication and the job at hand; the manner in which the prior communication was made; the extent to which the prior job and the present job are similar; and whether any additional or different information needs to be provided with respect to the present job. OSHA does not specify how the employer is to provide the required information to the employee in charge. The employer is free to use

any mechanism that effectively communicates the required information before the employees begin their assignment.

With respect to existing characteristics, OSHA anticipates that some of this information may be provided once through training, a safety manual, or written procedures, and that the communication would be effective until the system characteristics change.

The employer may communicate available information about known site conditions via maps, tags, or a similar mechanism as long as the communication is effective. For example, an employer may communicate known information about the condition of poles to the employee in charge through tags placed on poles after they are inspected, or a map showing when each pole was inspected and describing the inspection results, as long as the employee in charge knows how to interpret the tags or maps and has access, before the job starts, to the tags or maps that contain the relevant information.

21. ***Question:***

Paragraph (c)(1)(ii) of 29 CFR 1910.269 and paragraph (a)(2) of 29 CFR 1926.952 require the employee in charge to conduct the job briefing. May other employees on the crew present material during the briefing?

Response:

Yes. The standards require employers to "ensure that the employee in charge conducts a job briefing." The employee in charge is responsible for overseeing the job briefing, as well as making sure the job briefing occurs, covers all required subjects, and is in sufficient detail for the job. He or she must organize, preside over, and lead the job briefing, but may ask others to speak or make presentations as part of the briefing. Depending on the nature of the work, the crew may benefit from having an employee other than the employee in charge, for example, the employee with the most experience in a particular aspect of the job, present material during the job briefing.

Enclosed Spaces

22. ***Background:***

Paragraph (e) of 29 CFR 1910.269 and 29 CFR 1926.953 contain requirements for entry into, and work in, enclosed spaces. Paragraph (x) of 29 CFR 1910.269 and 29 CFR 1926.968 define "enclosed space" as "[a] working space, such as a manhole, vault, tunnel, or shaft, that has a limited means of egress or entry, that is designed for periodic employee entry under normal operating conditions, and that, under normal conditions, does not contain a hazardous atmosphere, but may contain a hazardous atmosphere under abnormal conditions." Those standards also define "entry" as used, respectively, in 29 CFR 1910.269(e) and 29 CFR 1926.953, as "[t]he action by which a person passes through an opening into an enclosed space." Furthermore, "[e]ntry includes ensuing work activities in that space and is considered to have occurred as soon as any part of the

entrant's body breaks the plane of an opening into the space." Before an employee enters an enclosed space, the atmosphere in the space must be tested for oxygen deficiency and flammable gases and vapors in accordance with 29 CFR 1910.269(e)(9) and (e)(10) or 29 CFR 1926.953(j) and (k).

Question (a):

Employees may remove covers from enclosed spaces (such as manholes or vaults) to hang warning tags or to facilitate viewing of structure identification tags or badges. Does the removal of a cover from an enclosed space constitute "entry," as defined in 29 CFR 1910.269(x) and 29 CFR 1926.968, where no part of the employee's body breaks the plane of the opening into the space during the removal of the cover? Does the use of a tool to hang a tag in an enclosed space constitute "entry," as defined in 29 CFR 1910.269(x) and 29 CFR 1926.968, where the tool, but no part of the employee's body, breaks the plane of the opening into the space during the use of the tool?

Response (a):

No entry will have occurred under either of the circumstances described. However, an entry does occur if any part of the employee's body breaks the plane of the opening. OSHA notes that 29 CFR 1910.269(e)(5) and 29 CFR 1926.953(f) require that, "[w]hen covers are removed from enclosed spaces, the opening shall be promptly guarded by a railing, temporary cover, or other barrier designed to prevent an accidental fall through the opening and to protect employees working in the space from objects entering the space." Compliance with these provisions should help ensure that employees do not enter the space unintentionally or accidentally.

Question (b):

If an employee is entering an enclosed space solely for the purpose of reading or hanging a tag in the entryway of the space, does the employer need to perform the testing required by 29 CFR 1910.269(e)(9) and (e)(10) or 29 CFR 1926.953(j) and (k) in the same manner it would perform testing if the employee was fully entering the space?

Response (b):

No. If the employee is reaching into or placing part of his or her body into the entryway of the space to hang or read a tag, atmospheric testing needs to be done only at the entryway. In every case, testing must be performed with equipment calibrated in accordance with 29 CFR 1910.269(e)(8) and 29 CFR 1926.953(i).

Minimum Approach Distances

23. ***Question:***

For voltages over 72.5 kilovolts, paragraph (l)(3)(ii) of 29 CFR 1910.269 and paragraph (c)(1)(ii) of 29 CFR 1926.960 require the employer to determine the maximum

anticipated per-unit transient overvoltage, phase to ground, through an engineering analysis or assume a maximum anticipated per-unit transient overvoltage, phase-to-ground, in accordance with Table R-9 or Table V-8, respectively. For purposes of 29 CFR 1910.269(l)(3)(ii) and 29 CFR 1926.960(c)(1)(ii), what methods must employers use to determine the maximum anticipated per-unit transient overvoltage, phase to ground?

Response:

The employer must perform an analysis based upon recognized and generally accepted good engineering practices that consider factors such as the system design, expected operating conditions, and control measures. Except as reflected in the response to Question 24 in this section, employers may use the methodologies set out in IEEE Std. 516-2009 or other recognized and generally accepted good engineering practices.

As an alternative to performing an engineering analysis, the employer may assume a maximum anticipated per-unit transient overvoltage, phase to ground, in accordance with the following table:

Voltage range (kV)	Type of current (ac or dc)	Assumed maximum per-unit transient overvoltage
72.6 to 420.0	ac	3.5
420.1 to 550.0	ac	3.0
550.1 to 800.0	ac	2.5
250 to 750	dc	1.8

If the employer uses portable protective gaps to control the maximum transient overvoltage, the value of the maximum anticipated per-unit transient overvoltage, phase to ground, must provide for five standard deviations between the statistical sparkover voltage of the gap and the statistical withstand voltage corresponding to the electrical component of the minimum approach distance.

24. ***Question:***

Paragraph (l)(3)(ii) of 29 CFR 1910.269 and paragraph (c)(1)(ii) of 29 CFR 1926.960 require the employer to determine the maximum anticipated per-unit transient overvoltage, phase-to-ground, through an engineering analysis or assume a maximum anticipated per-unit transient overvoltage, phase-to-ground, in accordance with Table R-9 or Table V-8, respectively. The preamble to the 29 CFR 1910.269 and 29 CFR Part 1926, Subpart V final rule explained OSHA's conclusions regarding how prestrikes and restrikes influence the determination of maximum transient overvoltage as follows:

> The Agency concludes that the prestrike experience reported by BPA demonstrates that the occurrence of prestrikes is likely to be a consequence of the design of the circuit breaker and the circuit involved, rather than a low probability event for each circuit breaker on every circuit. The BPA report explained that the

> occurrence of prestrikes was influenced heavily by the magnitude of the trapped charge on the line and the speed of the initial and repeated reflected traveling wavefronts (Ex. 0575.1). Because the cause of prestrikes and restrikes are the same, the Agency believes that restrikes are similarly influenced. In this regard, prestrikes and restrikes are the same type of event, with prestrikes occurring during circuit breaker closing and restrikes occurring during circuit breaker opening. Thus, although the overall probability that circuit breakers in general will restrike or prestrike may be low, OSHA concludes that the probability that a particular circuit breaker will restrike or prestrike may be high enough that it cannot be ignored. [79 FR 20432, as corrected at 79 FR 56957]

Does this conclusion require employers to assume that restrikes and prestrikes will occur on their systems?

Response:

No. With regard to restriking, OSHA understands that manufacturers design circuit breakers to keep the probability of restrikes extremely low. However, if those devices are not properly maintained, the probability of restrikes increases.

Employers may institute measures (such as selecting circuit breakers designed to keep the probability of restrikes extremely low, installing and operating them so as to not to increase the probability of restrike, maintaining them in accordance with manufacturer's instructions, and establishing and implementing administrative measures to prevent the use of other devices to switch circuits on which employees are working) to reduce the probability of restrike to a negligible level. Employers may then ignore the potential for restrike in calculating maximum transient overvoltages as long as those measures are in place.

In contrast to restrikes, circuit switching devices will generally exhibit prestriking in normal operation. OSHA does not presently have any evidence suggesting whether prestrikes do or do not have an effect on maximum transient overvoltage in all circumstances. OSHA believes that employers will generally be able to conclude that prestrikes have no meaningful effect on the maximum transient overvoltage and will defer to an employer's reasonable findings in this regard.[1]

OSHA understands that national consensus standards development organizations have undertaken projects to describe methods of analyzing maximum transient overvoltages. These projects will also describe procedures that may be used to decrease maximum transient overvoltages. OSHA intends to examine documents resulting from these

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[1] Note that OSHA's reliance on the BPA report is not an indication that the Agency concludes that BPA's experience is typical. To the extent OSHA relied on the BPA report with respect to prestrikes, OSHA acknowledges that prestrikes are an expected occurrence.

projects when they become available and, if warranted, to revise its policy regarding the determination of maximum transient overvoltages.

25. ***Question:***

Pursuant to 29 CFR 1910.269(l)(3)(ii) and 29 CFR 1926.960(c)(1)(ii), employers must determine the maximum anticipated per-unit transient overvoltage, phase-to-ground, through an engineering analysis, or assume a maximum anticipated per-unit transient overvoltage in accordance with Table R-9 in 29 CFR 1910.269 or Table V-8 in 29 CFR Part 1926, Subpart V. If an employer elects to conduct an engineering analysis, is the employer permitted to assess the entire system as opposed to each line?

Response:

The employer may conduct an analysis based on recognized and generally accepted good engineering practices on either a system basis or a per-line basis.

Protection from Electric Arcs

26. ***Question:***

Under 29 CFR 1910.269(l)(8)(ii) and 29 CFR 1926.960(g)(2), for each employee exposed to electric arc hazards, employers must "make a reasonable estimate of the incident heat energy to which the employee would be exposed." If an employer has more than one generating plant, are estimates required for each plant, or is the employer permitted to prepare an estimate for one generating plant and use it for other plants?

Response:

The employer is not necessarily required to prepare estimates for each individual generating plant. The employer may apply an estimate conducted for one generating plant to another generating plant as long as either: (1) the estimate is for a plant that is equivalent, in all respects that could affect available incident energy, to the other plants at which the estimate will be applied; or (2) the estimate is for a plant that is reasonably expected to have incident heat energy exposures higher than those at the other plants at which the estimate will be applied. The employer must ensure that the estimate is reasonable for a given generating plant before applying it to that location.

27. ***Question:***

Paragraph (l)(8)(v) of 29 CFR 1910.269 and paragraph (g)(5) of 29 CFR 1926.960 require the employer to "ensure that each employee exposed to hazards from electric arcs wears protective clothing and other protective equipment with an arc rating greater than or equal to the heat energy estimated under" 29 CFR 1910.269(l)(8)(ii) or 29 CFR 1926.960(g)(2), as applicable, "whenever that estimate exceeds 2.0 cal/cm^2." Those provisions generally require this protective equipment to cover the employee's entire body; however, "[a]rc-rated protection is not necessary for the employee's head when the

employee is wearing head protection meeting" 29 CFR 1910.135 or 29 CFR 1926.100(b)(2), as applicable, "if the estimated incident energy is less than 9 cal/cm^2 for exposures involving single-phase arcs in open air or 5 cal/cm^2 for other exposures." Must an employee exposed to electric arcs during the placement or removal of meters (which is not an exposure involving arcs in open air) wear arc-rated protection for the head if the employee works behind a meter shield that reduces the incident energy to which the employee is exposed to less than 5 cal/cm^2?

Response:

No, assuming the employee is wearing head protection meeting 29 CFR 1910.135 or 29 CFR 1926.100(b)(2), as applicable. As long as the employee will be working behind the meter shield, the employer may use an estimate of the incident heat energy to which the employee would be exposed behind the shield.

28. ***Question:***

Paragraph (l)(8)(iii) of 29 CFR 1910.269 and paragraph (g)(3) of 29 CFR 1926.960 require employers to ensure that "each employee who is exposed to hazards from flames or electric arcs does not wear clothing that could melt onto his or her skin or that could ignite and continue to burn when exposed to flames or the heat energy estimated under" 29 CFR 1910.269(l)(8)(ii) and 29 CFR 1926.960(g)(2), respectively. Notes to 29 CFR 1910.269(l)(8)(iii) and 29 CFR 1926.960(g)(3) explain that those provisions prohibit clothing made of specific fabrics (acetate, nylon, polyester, rayon, and polypropylene, either alone or in blends) unless the employer demonstrates that the fabric has been treated to withstand the conditions that may be encountered by the employee or that the employee wears the clothing in such a manner as to eliminate the hazard. For purposes of these provisions, how does OSHA expect employers to treat elastic in socks and underwear?

Response:

OSHA expects that clothing systems worn in accordance with the requirements of 29 CFR 1910.269(l)(8)(v) and 29 CFR 1926.960(g)(5) will ensure that elastic in underwear and socks is not exposed to heat energy that would cause it to melt onto the employee's skin or ignite and continue to burn. OSHA notes, however, that underwear and socks generally may not contain, alone or in blends, the prohibited fabrics listed in the notes to 29 CFR 1910.269(l)(8)(iii) and 29 CFR 1926.960(g)(3).

Fall Protection:

29. ***Background:***

Pursuant to 29 CFR 1910.269(g)(2)(iv)(B) and 29 CFR 1926.954(b)(3)(ii), personal fall arrest systems must be used in accordance with 29 CFR 1926.502(d). And 29 CFR 1926.502(d)(16)(iii) requires personal fall arrest systems to "be rigged such that an employee can neither free fall more than 6 feet (1.8 m), nor contact any lower level."

Question (a):

Does OSHA consider a tree branch or a utility line conductor or cable to be a "lower level" for purposes of this provision?

Response (a):

No. OSHA does not treat a tree branch or utility line conductor or cable as a lower level for purposes of assessing compliance with 29 CFR 1926.502(d)(16)(iii), as incorporated in 29 CFR 1910.269(g)(2)(iv)(B) and 29 CFR 1926.954(b)(3)(ii).

Question (b):

Does OSHA consider a tower leg, cross bracing, or lattice work to be a "lower level" for purposes of this provision?

Response (b):

No. OSHA does not treat a tower leg, cross bracing, or lattice work of a type commonly found on a tower, a substation structure, or a similar structure as a lower level for purposes of assessing compliance with 29 CFR 1926.502(d)(16)(iii), as incorporated in 29 CFR 1910.269(g)(2)(iv)(B) and 29 CFR 1926.954(b)(3)(ii).

30. *Question:*

Paragraph (g)(2)(ii) of 29 CFR 1910.269 and paragraph (b)(1)(ii) of 29 CFR 1926.954 require personal fall arrest equipment used by employees who are exposed to hazards from flames or electric arcs to be capable of passing a drop test (described in 29 CFR 1910.269(g)(2)(iii)(L) and 29 CFR 1926.954(b)(2)(xii), respectively) after exposure to an electric arc with a heat energy of 40 ± 5 cal/cm^2. Will harnesses and shock-absorbing lanyards meeting ASTM F887-04, or later versions of that standard through ASTM F887-13, be deemed to comply with these provisions?

Response:

Yes.

31. *Question:*

Paragraph (x) of 29 CFR 1910.269 and 29 CFR 1926.968 define "work-positioning equipment" as a "body belt or body harness system rigged to allow an employee to be supported on an elevated vertical surface, such as a utility pole or tower leg, and work with both hands free while leaning." During work on towers and similar structures, employees use work-positioning equipment while they are climbing to their work locations. Once at their work locations, employees may secure their positioning straps to the structure so that they are capable of performing work on a vertical surface with both hands free while leaning. Is fall protection equipment used in this manner still considered

work-positioning equipment that meets the definition in 29 CFR 1910.269(x) and 29 CFR 1926.968?

Response:

Yes.

32. ***Background:***

Paragraph (g)(2)(iv)(E) of 29 CFR 1910.269 and paragraph (b)(3)(v) of 29 CFR 1926.954 require anchorages for work-positioning systems to be capable of supporting at least twice the potential impact load of an employee's fall, or 13.3 kilonewtons (3,000 pounds-force), whichever is greater. Furthermore, 29 CFR 1910.269(g)(2)(i) and 29 CFR 1926.954(b)(1)(i) require personal fall arrest systems to meet the requirements of 29 CFR Part 1926, Subpart M, including 29 CFR 1926.502. Paragraph (d)(15) of 29 CFR 1926.502 requires anchorages used for attachment of personal fall arrest equipment to be independent of any anchorage being used to support or suspend platforms and to be capable of supporting at least 22.2 kilonewtons (5,000 pounds) per employee attached or be designed, installed, and used, under the supervision of a qualified person, as part of a complete personal fall arrest system which maintains a safety factor of at least 2.0.

Question (a):

Must employers calculate the strength of each potential anchorage on every tower that will be climbed?

Response (a):

No. The employer may rely on recognized and generally accepted good engineering practices, with consideration given to such factors as design specifications and maintenance procedures, in determining whether potential anchorages meet the strength requirements in 29 CFR 1910.269(g)(2)(iv)(E), 29 CFR 1926.954(b)(3)(v), and 29 CFR 1926.502(d)(15), provided the employer ensures that a visual inspection by the employee before use reveals that nothing about the appearance of the anchorage (for example, corrosion around support-member connections or bent support members) suggests that the applicable strength criteria would not be met. OSHA notes that it will deem substantially vertical structural support members of towers to meet the strength requirements of 29 CFR 1910.269(g)(2)(iv)(E), 29 CFR 1926.954(b)(3)(v), and 29 CFR 1926.502(d)(15), without any engineering analysis, provided the employer ensures that the employee performs the visual inspection described in this response.

Question (b):

Some steel structures have fixed ladders built into them near the top. May employers use these types of ladders as anchorages?

Response (b):

Yes, provided the employer relies on recognized and generally accepted good engineering practices, with consideration given to such factors as design specifications and maintenance procedures for the tower, in determining whether potential anchorages meet the strength requirements in 29 CFR 1910.269(g)(2)(iv)(E), 29 CFR 1926.954(b)(3)(v), and 29 CFR 1926.502(d)(15), and provided the employer ensures that a visual inspection by the employee before use reveals that nothing about the appearance of the anchorage (for example, corrosion in ladder rails or supports) suggests that the applicable strength criteria would not be met.

Question (c):

Some steel poles have clips or studs to secure detachable ladders to the pole. May employers use these types of ladders as anchorages?

Response (c):

Yes, provided the employer relies on recognized and generally accepted good engineering practices, with consideration given to such factors as design specifications and maintenance procedures, in determining whether potential anchorages meet the strength requirements in 29 CFR 1910.269(g)(2)(iv)(E), 29 CFR 1926.954(b)(3)(v), and 29 CFR 1926.502(d)(15), and provided the employer ensures that a visual inspection by the employee before use reveals that nothing about the appearance of the anchorage (for example, corrosion or cracks in the clips or studs or in any welds holding them in place) suggests that the applicable strength criteria would not be met.

Question (d):

Employees may work from cable-supported devices, such as cable carts. May the employer use the conductor or the cable-supported device as an anchorage?

Response (d):

Cable-supported devices are not "poles, towers, or similar structures." Consequently, the duty to provide fall protection for employees working from these devices is not set by 29 CFR 1910.269(g)(2)(iv)(C)(2) and (g)(2)(iv)(C)(3) or by 29 CFR 1926.954(b)(3)(iii)(B) and (b)(3)(iii)(C). See Note 1 to these provisions. Those notes indicate that the duty to provide fall protection associated with these working surfaces is contained in 29 CFR Part 1910, Subpart D, and 29 CFR Part 1926, Subpart M, respectively. However, under 29 CFR 1910.269(g)(2)(i) and 29 CFR 1926.954(b)(1)(i), personal fall arrest systems must meet 29 CFR Part 1926, Subpart M. An employer may use a conductor as an anchorage for a personal fall arrest system provided the employer relies on recognized and generally accepted good engineering practices, with consideration given to such factors as design specifications and maintenance procedures, in determining whether the conductor meets the strength requirements in 29 CFR 1926.502(d)(15), and provided the

employer ensures that a visual inspection by the employee before use reveals that nothing about the appearance of the anchorage (for example, broken conductor strands) suggests that the applicable strength criteria would not be met.

Note that OSHA generally considers a cable-supported device to be a platform within the meaning of 29 CFR 1926.502(d)(15). In such cases, any fall arrest anchorage on the cable-supported device would be dependent on the device anchorage for support, in violation of 29 CFR 1926.502(d)(15), and the employer must use a suitable anchorage, independent of any anchorage used to support or suspend the device, for personal fall arrest systems.

33. ***Background:***

Under 29 CFR 1910.269(g)(2)(iv)(C)(2) and 29 CFR 1926.954(b)(3)(iii)(B), employers generally must ensure the use of personal fall arrest systems, fall restraint systems, or work-positioning equipment, as appropriate, by employees in elevated locations more than 1.2 meters (4 feet) above the ground on poles, towers, or similar structures. Under 29 CFR 1910.269(g)(2)(iv)(C)(3) and 29 CFR 1926.954(b)(3)(iii)(C), on and after April 1, 2015, qualified employees generally must use appropriate fall protection when they are climbing or changing location on poles, towers, or similar structures. Paragraph (x) of 29 CFR 1910.269 and 29 CFR 1926.968 define "work-positioning equipment" as a "body belt or body harness system rigged to allow an employee to be supported on an elevated vertical surface, such as a utility pole or tower leg, and work with both hands free while leaning." Furthermore, 29 CFR 1910.269(g)(2)(iv)(D) and 29 CFR 1926.954(b)(3)(iv) provide that, on and after April 1, 2015, work-positioning systems must be rigged so that the employee can free fall no more than 0.6 meters (2 feet), and 29 CFR 1910.269(g)(2)(iv)(E) and 29 CFR 1926.954(b)(3)(v) require anchorages for work-positioning equipment to be capable of supporting at least twice the potential impact load of an employee's fall, or 13.3 kilonewtons (3,000 pounds force), whichever is greater.[2]

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[2] OSHA recognizes that congestion or obstructions on the pole may preclude the use of fall protection while employees are climbing or changing location on poles, towers, or similar structures. Qualified employees must use appropriate fall protection while climbing or changing location on poles, towers, or similar structures unless the employer can demonstrate that climbing or changing location with fall protection is infeasible or creates a greater hazard than climbing or changing location without it. (See 29 CFR 1910.269(g)(2)(iv)(C)(3) and 29 CFR 1926.954(b)(3)(iii)(C).) Employers are permitted to make reasonable determinations of what conditions, such as the degree of congestion on a pole, would result in a greater hazard for employees climbing with fall protection than without fall protection. In making these determinations, employers must consider the use of devices that provide for continuous attachment and should account for other conditions that could cause the employee to lose his or her grip or footing, including such conditions as ice, high winds, the design of the structure, or the presence of contaminants on the structure. OSHA notes that the provisions on fall protection for employees climbing or changing location do not affect fall protection requirements for employees once they reach the work location.

During work on concrete and steel poles, an employee may use work-positioning equipment while he or she is climbing to the work location using step bolts located on the pole. The work-positioning strap is secured around the pole and placed over the step bolts as the employee climbs the pole. If the employee encounters a bolted attachment on the pole, such as a cable, wire, or piece of equipment, the employee attaches a secondary positioning strap over the bolted attachment, removes the primary positioning strap, and moves up the pole a sufficient distance to attach a positioning strap over the bolted attachment. Many poles have multiple bolted attachments, requiring the employee to repeat this process for each attachment until he or she reaches the work location. Once at the work location, the employee secures the positioning strap to the pole above a step bolt or other bolted attachment so that he or she can perform work with both hands free while standing on the step bolts. In this scenario, while the employee is climbing and at the work location, the step bolt or bolted attachment over which the positioning strap rests is the anchorage.

Question (a):

Does fall protection equipment used in this manner meet the requirements of 29 CFR 1910.269(g)(2)(iv)(C)(3) and 1910.269(g)(2)(iv)(D), and 29 CFR 1926.954(b)(3)(iii)(C) and 1926.954(b)(3)(iv)?

Response (a):

Yes, provided that the equipment is rigged so that the employee can be supported on an elevated vertical surface and can work with both hands free while leaning and the equipment complies with other applicable requirements for work-positioning equipment, including the anchorage strength requirement and the requirement for the system to be rigged so that the employee can free fall no more than 0.6 meters (2 feet).

Question (b):

Must the employer determine the strength of each potential anchorage on the pole?

Response (b):

No, provided the employer ensures that a visual inspection by the employee before use reveals that nothing about the appearance of the anchorage (for example, corrosion or cracks) suggests that the applicable strength criteria would not be met. When possible, the anchorage at the final working position needs to be assessed using recognized and generally accepted good engineering practices, with consideration given to such factors as design specifications and maintenance procedures, to determine whether the strength requirements in 29 CFR 1910.269(g)(2)(iv)(E) and 29 CFR 1926.954(b)(3)(v) are met. In making this assessment, the employer is not required to contact a third party that installed a particular anchorage to obtain information unless that third party is a host employer or contract employer for that particular project.

*34. **Background:***

Under 29 CFR 1910.269(g)(2)(iv)(C)(2) and 29 CFR 1926.954(b)(3)(iii)(B), employers generally must ensure the use of personal fall arrest systems, fall restraint systems, or work-positioning equipment, as appropriate, by employees in elevated locations more than 1.2 meters (4 feet) above the ground on poles, towers, or similar structures. Under 29 CFR 1910.269(g)(2)(iv)(C)(3) and 29 CFR 1926.954(b)(3)(iii)(C), on and after April 1, 2015, qualified employees generally must use appropriate fall protection when they are climbing or changing location on poles, towers, or similar structures. Paragraph (x) of 29 CFR 1910.269 and 29 CFR 1926.968 define "work-positioning equipment" as a "body belt or body harness system rigged to allow an employee to be supported on an elevated vertical surface, such as a utility pole or tower leg, and work with both hands free while leaning." Furthermore, 29 CFR 1910.269(g)(2)(iv)(D) and 29 CFR 1926.954(b)(3)(iv) provide that, on and after April 1, 2015, work-positioning systems must be rigged so that the employee can free fall no more than 0.6 meters (2 feet), and 29 CFR 1910.269(g)(2)(iv)(E) and 29 CFR 1926.954(b)(3)(v) require anchorages for work-positioning equipment to be capable of supporting at least twice the potential impact load of an employee's fall, or 13.3 kilonewtons (3,000 pounds force), whichever is greater.

During work on a wood pole, an employee may use a wood-pole fall-restriction device while he or she is climbing to the work location. The wood-pole fall-restriction device, which is a form of work-positioning equipment, is used with a secondary positioning strap. When an employee using such equipment encounters a bolted attachment on the pole, such as a cable, wire, or piece of equipment, the employee places the secondary positioning strap over the bolted attachment, disengages the primary strap, and moves up the pole a sufficient distance to reattach a strap over the bolted attachment. Many poles have multiple bolted attachments, requiring the employee to repeat this process for each attachment until he or she reaches the work location. At the work location, the employee uses either the primary or secondary positioning strap secured to the pole above a bolted attachment so that he or she can perform work with both hands free. In this scenario, when the employee is climbing or at the work location, the primary strap, with the inner security strap properly engaged, may form the anchorage, as indicated by the notes following 29 CFR 1910.269(g)(2)(iv)(E) and 29 CFR 1926.954(b)(3)(v). When the employee is transitioning over a bolted attachment, or is at the work location, and the secondary strap is positioned above a bolted attachment, the bolted attachment serves as the anchorage.

Question (a):

Does fall protection equipment used in this manner meet the requirements of 29 CFR 1910.269(g)(2)(iv)(C)(3) and 1910.269(g)(2)(iv)(D), and 29 CFR 1926.954(b)(3)(iii)(C) and 1926.954(b)(3)(iv)?

Response (a):

Yes, provided that the equipment is rigged so that the employee can be supported on an elevated vertical surface and can work with both hands free while leaning and the

equipment complies with other applicable requirements for work-positioning equipment, including the anchorage strength requirement and the requirement for the system to be rigged so that the employee can free fall no more than 0.6 meters (2 feet).

Question (b):

Must the employer determine the strength of each potential anchorage on the pole?

Response (b):

No. Notes to 29 CFR 1910.269(g)(2)(iv)(E) and 29 CFR 1926.954(b)(3)(v) provide that wood-pole fall-restriction devices meeting ASTM F887-12^{e1} are deemed to meet the anchorage strength requirement when they are used in accordance with the manufacturer's instructions. Moreover, the employer does not need to determine the strength of each bolted attachment that will potentially be used as an anchorage on a wood pole, provided the employer ensures that a visual inspection by the employee before use reveals that nothing about the appearance of the anchorage (for example, corrosion or cracks) suggests that the applicable strength criteria would not be met. When possible, any bolted attachment used as an anchorage at the final working position needs to be assessed using recognized and generally accepted good engineering practices, with consideration given to such factors as design specifications and maintenance procedures, to determine whether the strength requirements in 29 CFR 1910.269(g)(2)(iv)(E) and 29 CFR 1926.954(b)(3)(v) are met. In making this assessment, the employer is not required to contact a third party that installed a particular anchorage to obtain information unless that third party is a host employer or contract employer for that particular project. If, at the working position, it is not possible to use the wood-pole fall-restriction device as an anchorage and to assess the strength of this bolted attachment, then the employer may rely on the bolted attachment as an anchorage without an assessment. OSHA encourages employers to require the use of the primary strap, with the inner security strap properly engaged, as an anchorage whenever employees use wood-pole fall-restriction devices, but acknowledges that the use of secondary straps may be necessary.

Grounding

35. ***Question:***

Paragraph (n) of 29 CFR 1910.269 contains requirements for grounding of deenergized generation, transmission, and distribution lines and equipment for the purpose of protecting employees. Does this paragraph require grounding of deenergized generation lines or equipment?

Response:

No. Paragraph (n) of 29 CFR 1910.269 does not affirmatively require grounding of deenergized electric power generation lines or equipment. However, if an employer elects to ground deenergized generation circuits to protect employees (even when the standard does not require such grounding), the grounding methods used must comply with the requirements in 29 CFR 1910.269(n) other than 29 CFR 1910.269(n)(2).

36. ***Question:***

Appendix C (Protection from Hazardous Differences in Electric Potential) to both 29 CFR 1910.269 and 29 CFR Part 1926, Subpart V sets out methods the employer may use to establish an equipotential zone. Are these the only methods the employer may use?

Response:

No. Appendix C is nonmandatory. Employers may set their own grounding practices without following the guidelines in Appendix C, but the Agency reminds employers that 29 CFR 1910.269(n)(3) and 29 CFR 1926.962(c) require them to be able to demonstrate that any practices selected will prevent each employee from being exposed to hazardous differences in electric potential. OSHA will deem grounding practices meeting Appendix C as complying with these paragraphs.

Line-Clearance Tree Trimming

37. ***Question:***

Does 29 CFR 1910.269(r)(5) apply only to gasoline-engine power saws used for line-clearance tree trimming work covered by 29 CFR 1910.269?

Response:

Yes, 29 CFR 1910.269(r)(5) applies only to gasoline-engine power saws used for work covered by 29 CFR 1910.269(r). See 29 CFR 1910.269(a)(1)(i)(E) (scope) and 29 CFR 1910.269(x) (definition of "line-clearance tree trimming"). Standards other than 29 CFR 1910.269 and 29 CFR Part 1926, Subpart V, or the General Duty Clause of the OSH Act, may govern other power saw operations.

38. ***Background:***

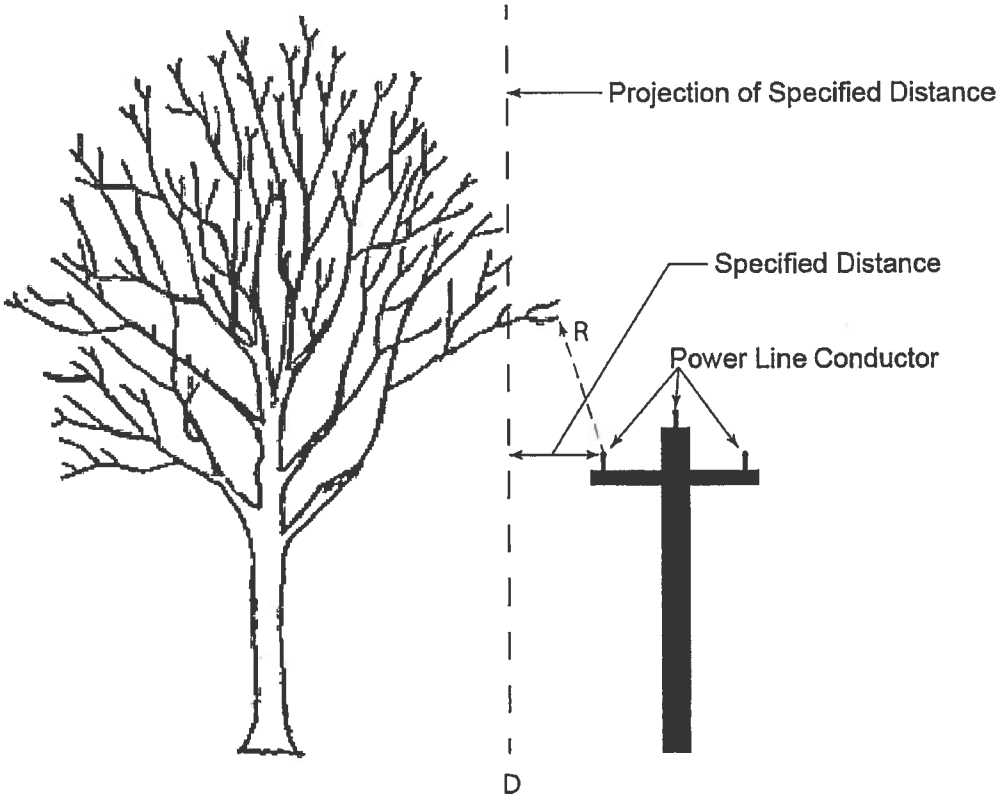
Paragraph (x) of 29 CFR 1910.269 defines line-clearance tree trimming as "[t]he pruning, trimming, repairing, maintaining, removing, or clearing of trees, or the cutting of brush, that is within the following distance of electric supply lines and equipment: (1) For voltages to ground of 50 kilovolts or less – 3.05 meters (10 feet); (2) For voltages to ground of more than 50 kilovolts – 3.05 meters (10 feet) plus 0.10 meters (4 inches) for every 10 kilovolts over 50 kilovolts."

Question (a):

How does OSHA determine whether trees or brush are within the distances specified in the definition of line-clearance tree trimming?

Response (a):

In ascertaining whether work meets the definition of line-clearance tree trimming, the determining factor is the location of the tree or brush being worked on, not the location of the employee or the location of the work being performed. Work meets the definition of line-clearance tree trimming if any part of the tree or brush being worked on is within the specified distance, horizontally, of electric supply lines or equipment. In other words, the specified distance extends vertically up and down next to, rather than radially from, the power line conductor or associated equipment. (See the figure following this paragraph.) The tree is within the specified distance if any part of the tree is on the side of that vertical projection closest to the line or equipment (D) without regard to the radial distance from the line or equipment (R). (See 29 CFR 1910.269(a)(1)(i)(E) for information about the applicability of §1910.269 to line-clearance tree trimming.)



Question (b):

Does 29 CFR 1910.269 apply to ancillary tasks associated with covered line-clearance tree trimming work even if those tasks take place outside of the distances specified in the definition of line-clearance tree trimming?

Response (b):

Yes, 29 CFR 1910.269 applies to ancillary tasks (including chipping, stump grinding, spraying, and disposal) associated with line-clearance tree trimming work that is covered by the standard, even if those tasks are performed outside of the distances specified in the definition of line-clearance tree trimming. For example, if a crew is engaged in line-clearance tree trimming work covered by 29 CFR 1910.269 involving the removal of a tree within the specified distance of an electric power line, 29 CFR 1910.269 applies to any chipping of brush or tree branches associated with that work, even if the chipping takes place outside of the distances specified in the definition of line-clearance tree trimming or after the tree removal has been completed.

39. ***Question:***

Paragraph (r)(1)(iii) of 29 CFR 1910.269 requires line-clearance tree trimmers performing line-clearance tree-trimming work covered by the standard to maintain the minimum approach distances from energized conductors specified in Table R-5 through Table R-8. For purposes of using those tables, does the employer need to apply minimum approach distances based on phase-to-ground or phase-to-phase exposures?

Response:

Line-clearance tree trimming work covered by 29 CFR 1910.269 and performed by line-clearance tree trimmers in accordance with paragraph (r)(1) of 29 CFR 1910.269 involves phase-to-ground exposures only.

40. ***Background:***

Paragraph (r) of 29 CFR 1910.269 contains requirements for line-clearance tree-trimming and for equipment used in that work. Paragraph (r)(5) provides, in relevant part, that "[g]asoline-engine power saw operations shall meet the requirements of [29 CFR] 1910.266(e)," and 29 CFR 1910.266(e)(2)(vi) prohibits the drop starting of chain saws. Furthermore, 29 CFR 1910.269(r)(5)(iv) provides that power saws (including chain saws) must "be started on the ground or where . . . otherwise firmly supported." That paragraph also provides that saws, other than chain saws, that weigh over 6.8 kilograms or 15 pounds may be drop started outside of the bucket of an aerial lift if the area below the lift is clear of personnel.

Question (a):

How does OSHA define the term "drop starting" for purposes of these provisions?
Response (a):

OSHA interprets the term "drop starting," as used in 29 CFR 1910.266(e)(2)(vi) and 1910.269(r), as the process of starting a saw by simultaneously pushing it away from the body with one hand and pulling on the starter cord handle with the other.

Question (b):

Will OSHA deem an employee to be drop starting a saw simply because the employee starts the saw in a manner that involves some bend in the employee's arm?

Response (b):

OSHA recognizes that an employee will not always be able to keep the arm that is holding the saw perfectly straight while starting a chain saw; starting a chain saw in a manner that involves some bend in the arm that is holding the saw does not necessarily constitute drop starting. The employee is not drop starting the chain saw unless he or she pushes the saw away from the body with one hand while simultaneously pulling on the starter cord handle with the other.

Question (c):

Under 29 CFR 1910.269(r)(5)(iv), are employees engaged in line-clearance tree trimming permitted to start gasoline-powered chain saws outside the bucket while aloft?

Response (c):

Assuming any other requirements in 29 CFR 1910.269(r)(5)(iv) are met, that paragraph does not prohibit the starting of a chain saw, using a method other than drop starting, outside the bucket of an aerial lift while the bucket is aloft. OSHA emphasizes that any time a saw is started outside of the bucket, it is important to ensure that the area below the saw, to ground level, is clear of personnel.

Underground Installations

41. Question:

Paragraph (t)(6) of 29 CFR 1910.269 and paragraph (g) of 29 CFR 1926.965 generally require employers to "ensure that employees inspect energized cables to be moved for abnormalities." Employers must treat the following abnormalities as indications of an impending fault unless the employer can demonstrate that the conditions could not lead to a fault: oil or compound leaking from cable or joints; broken cable sheaths or joint sleeves; hot localized surface temperatures of cables or joints; and joints swollen beyond normal tolerance. (See 29 CFR 1910.269(t)(7)(i) and 29 CFR 1926.965(h)(1).) What type of inspection is required by 29 CFR 1910.269(t)(6) and 29 CFR 1926.965(g), and how is the inspection to be performed when there is arc-proofing tape, duct work, concrete, asphalt or similar material covering the cables being inspected?

Response:

Paragraph (t)(6) of 29 CFR 1910.269 and paragraph (g) of 29 CFR 1926.965 require an external inspection to detect the conditions listed in 29 CFR 1910.269(t)(7)(i) and 29 CFR 1926.965(h)(1). Employers are not required to remove any arc-proofing tape, duct

work, concrete, asphalt, or similar material that may be covering the energized cables as part of the required inspection before moving the energized cables. If any of the abnormalities listed in 29 CFR 1910.269(t)(7)(i) and 29 CFR 1926.965(h)(1) are found during the work, the abnormalities must be treated as an indication of an impending fault.

42. ***Question:***

Paragraph (l)(8)(i) of 29 CFR 1910.269 and paragraph (g)(1) of 29 CFR 1926.960 require employers to assess their workplaces to identify employees exposed to hazards from flames or from electric arcs. Paragraph (l)(8)(ii) of 29 CFR 1910.269 and paragraph (g)(2) of 29 CFR 1926.960 provide that, for each employee exposed to hazards from electric arcs, the employer make a reasonable estimate of the incident heat energy to which the employee would be exposed. Furthermore, 29 CFR 1910.269(t)(6) and 29 CFR 1926.965(g) generally require employers to ensure that employees inspect energized cables to be moved for abnormalities. Are employers required to calculate estimated heat energy exposures for employees who conduct these inspections?

Response:

OSHA does not anticipate that employers will find that employees performing the inspections required by 29 CFR 1910.269(t)(6) and 29 CFR 1926.965(g) are exposed to electric arc hazards. However, the employer must still conduct the assessment required by 29 CFR 1910.269(l)(8)(i) and 29 CFR 1926.960(g)(1) to determine if the employees performing such inspections are exposed to hazards from flames or from electric arcs; and, if the assessment reveals an electric arc hazard, the employer must make the incident energy estimate required by 29 CFR 1910.269(l)(8)(ii) and 29 CFR 1926.960(g)(2).

Manholes and Underground Vaults

43. ***Question:***

Paragraph (t)(7)(ii) of 29 CFR 1910.269 and paragraph (h)(2) of 29 CFR 1926.965 provide that "[i]f the work employees will perform in a manhole or vault could cause a fault in a cable, the employer . . . deenergize that cable before any employee works in the manhole or vault, except when service-load conditions and a lack of feasible alternatives require that the cable remain energized." How does this provision apply to the operation of removing arc-proofing tape (or similar material) from an energized cable? How does this provision apply to chipping or slicing duct work, concrete, asphalt, or similar material away from an energized cable?

Response:

Paragraph (t)(7)(ii) of 29 CFR 1910.269 and paragraph (h)(2) of 29 CFR 1926.965 do not require employers to deenergize cables when there is only a remote possibility that the work employees will perform could cause a fault in a cable. These provisions require deenergization only when there is a reasonable possibility that performing the work in question could cause a fault. OSHA considers there to be a reasonable possibility of a

fault occurring during the work: (1) if the work practices used could foreseeably lead to the penetration of the cable; or (2) if the work practices used could foreseeably place other damaging stresses on the cable jacket or insulation, such as bending the cable at an extreme angle.

The Agency does not consider there to be a reasonable possibility of a fault occurring provided that the work is performed as described in paragraphs (a) and (b) of the response to this question; and, in such cases, paragraph (t)(7)(ii) of 29 CFR 1910.269 and paragraph (h)(2) of 29 CFR 1926.965 would not require employers to deenergize cables.

(a) Qualified employees may remove arc-proof covering or similar material from energized cable for cable identification and other purposes as long as the cable exhibits no visible abnormalities and the removal of this material is performed in a manner that will not impose damaging stresses on the cable insulation or jacket. For example, this work could include the use of a utility knife or similar tool to penetrate the tape (but not the cable jacket or insulation) so that the tape may then be removed by hand.

(b) Qualified employees may slice through or chip duct work, concrete, asphalt or similar material under the following conditions:

i. The chipping or slicing is performed with the use of hand tools, such as a hammer and cold chisel, with movements that could potentially penetrate the cable directed away from the cable or limited by the use of tool guards to prevent contact with the cable, and a nonconductive protective barrier is inserted (if practicable) to protect the cable from penetration once sufficient material has been broken to make that action possible; or

ii. The chipping or slicing is performed with power tools using the following procedures: power tools are operated in a direction away from the energized cable unless tool guards are used to prevent contact with the cable; power tools are not used within 12.7 millimeters (0.5 inch) of an energized cable unless tool guards to prevent contact with the energized cable are used; and a nonconductive protective barrier is inserted (if practicable) to protect the cable from penetration once sufficient material has been broken to make that action possible.

Note: Paragraph (l)(8) of 29 CFR 1910.269 and paragraph (g) of 29 CFR 1926.960 do not require employers to mandate the use of arc-rated or flame-resistant clothing beyond what employees wear on a day-to-day basis during the work described in paragraphs (a) and (b). If an employer elects to have employees use additional protective clothing in such circumstances, the Agency advises the employer to consider the potential for heat stress hazards. (See https://www.osha.gov/SLTC/heatstress/).

44. ***Question:***

Paragraph (l)(8)(i) of 29 CFR 1910.269 and paragraph (g)(1) of 29 CFR 1926.960 require employers to assess their workplaces to identify employees exposed to hazards from flames or from electric arcs. Paragraph (l)(8)(ii) of 29 CFR 1910.269 and paragraph (g)(2) of 29 CFR 1926.960 provide that, for each employee exposed to hazards from electric arcs, the employer make a reasonable estimate of the incident heat energy to which the employee would be exposed. Are employers required to estimate incident heat energy for employees who perform the work described in parts (a) and (b) of the response to Question 43 in this section?

Response:

OSHA does not anticipate that employers will find that employees performing work as described in parts (a) and (b) of the response to Question 43 in this section are exposed to electric arc hazards. However, the employer must still conduct the assessment required by 29 CFR 1910.269(l)(8)(i) and 29 CFR 1926.960(g)(1) to determine if the employees performing such work are exposed to hazards from flames or from electric arcs; and, if the assessment reveals an electric arc hazard, the employer must make the incident energy estimate required by 29 CFR 1910.269(l)(8)(ii) and 29 CFR 1926.960(g)(2).

45. ***Question:***

Paragraph (t)(5) of 29 CFR 1910.269 and paragraph (f) of 29 CFR 1926.965 provide that, "[w]hen multiple cables are present in a work area, the employer . . . identify the cable to be worked by electrical means, unless its identity is obvious by reason of distinctive appearance or location or by other readily apparent means of identification." Moreover, "[t]he employer shall protect cables other than the one being worked from damage." And 29 CFR 1910.269(t)(7) and 29 CFR 1926.965(h) provide requirements for protecting employees working in manholes and underground vaults from the effects of faulted cables.

In accordance with 29 CFR 1910.269(t)(5) and 29 CFR 1926.965(f), employers may connect high-voltage sources to generate low amperage pulses on a group of cables in order to identify the location of (or the cable containing) a known fault. Does this practice trigger the provisions of 29 CFR 1910.269(t)(7) or 29 CFR 1926.965(h)?

Response:

To locate faults in cables, employers generally use equipment at termination points at cable ends. This equipment, which temporarily energizes the cable, identifies which cable is faulted and where the fault is on the cable. Using this equipment does not trigger the provisions of 29 CFR 1910.269(t)(7) or 29 CFR 1926.965(h), except with respect to the manhole or vault in which the fault being located exists.

Note that employers of employees who are working on or near cables being tested must comply with the applicable requirements in 29 CFR 1910.269(l) and 29 CFR 1926.960 for working on or near energized parts.

46. **Question:**

Paragraph (t)(7)(i) of 29 CFR 1910.269 and paragraph (h)(1) of 29 CFR 1926.965 require that the employer deenergize a cable with an abnormality that could lead to a fault or be an indication of an impending fault before any employee works in the manhole or vault. If a crew identifies an abnormality after entering a manhole or vault, does 29 CFR 1910.269(t)(7)(i) or 29 CFR 1926.965(h)(1) prohibit an employee from hanging a tag in the entryway of the manhole or vault, either on the way out of the manhole or vault, or by reaching into the space from outside the manhole or vault, without deenergizing the cable with the abnormality?

Response:

No.

Exhibit B

MEMORANDUM FOR: REGIONAL ADMINISTRATORS

FROM: DOROTHY DOUGHERTY
DEPUTY ASSISTANT SECRETARY

THOMAS GALASSI
DIRECTOR, DIRECTORATE OF
ENFORCEMENT PROGRAMS

JAMES MADDUX
DIRECTOR, DIRECTORATE OF
CONSTRUCTION

SUBJECT: 29 CFR 1910.269 and 29 CFR Part 1926,
Subpart V– Fall protection

On April 11, 2014, OSHA promulgated a final rule revising 29 CFR 1910.269 and 29 CFR Part 1926, Subpart V, the general industry and construction standards for work on electric power generation, transmission and distribution installations. This memorandum establishes enforcement policies for some of the fall protection requirements applicable to work covered by 29 CFR 1910.269 and 29 CFR Part 1926, Subpart V. The policies stated in this memorandum are based on OSHA's understanding of the specific conditions present during electric power generation, transmission, and distribution work and thus do not apply to work outside the scope of 29 CFR 1910.269 and 29 CFR Part 1926, Subpart V.

A. Fall Protection in Aerial Lifts

Under 29 CFR 1910.269(g)(2)(iv)(C)(1) and 29 CFR 1926.954(b)(3)(iii)(A), employees working from aerial lifts must use either a fall restraint system or a personal fall arrest system. OSHA is not aware of any fall restraint systems available today that can be used in a bucket-type aerial lift that does not have an anchorage built into the bucket. Thus, the Agency expects that for employers to meet the requirements in the standards, they will have employees working from such aerial lift buckets using fall arrest equipment. Paragraph (g)(2)(i) of 29 CFR 1910.269 and paragraph (b)(1)(i) of 29 CFR 1926.954 require that personal fall arrest systems meet the requirements of Subpart M of Part 1926. Furthermore, 29 CFR 1910.269(g)(2)(iv)(B) and 29 CFR 1926.954(b)(3)(ii) specifically provide that personal fall arrest systems must be used in accordance with section 1926.502(d) in Subpart M, which specifies, in part, that personal fall arrest systems must "be rigged such that an employee can neither free fall more than 6 feet (1.8m), nor contact any lower level." (See 29 CFR 1926.502(d)(16)(iii).)

OSHA requires employers to ensure that employees in aerial lifts are fully protected from falls while the aerial lift bucket or platform is moving or in a stationary position at any height at which work subject to 29 CFR 1910.269 or 29 CFR Part 1926, Subpart V, is to be performed. Except as specifically provided in the following enforcement policies, any fall arrest system used to protect employees must comply fully with the requirements of Subpart M, including the requirement, in 29 CFR 1926.502(d)(16)(iii), that the fall arrest system be rigged to prevent the employee from contacting any lower level. Note that in separate guidance, OSHA has clarified that the Agency does not treat tree branches or utility line conductors or cables as lower levels for purposes of 29 CFR 1926.502(d)(16)(iii).

Until further notice, for work covered by 29 CFR 1910.269 and 29 CFR Part 1926, Subpart V, the following enforcement policies apply to any bucket-type aerial lift that does not have a suitable anchorage built into the bucket.

1. **No citation will be issued under 29 CFR 1910.269, 29 CFR Part 1926, Subpart V, or 29 CFR 1926.502(d)(16)(iii), because a fall arrest system being used by an employee in a bucket-type aerial lift could permit the employee to contact a lower level while the bucket is ascending from the cradle position to a working level or descending from a working level to the cradle position provided:**
    a) **The fall arrest system complies in all other respects with 29 CFR Part 1926, Subpart M; and**
    b) **The aerial lift is parked with the brakes set and with the outriggers extended as required by 29 CFR 1910.269(p)(2) and 29 CFR 1926.959(b); and**
    c) **The employer has taken reasonable precautions to address any ejection hazards present that could result in injury to the employee in the bucket during this ascent and descent. (For any aerial lift positioned in an active roadway, reasonable precautions to address ejection hazards include the precautions described in the Manual on Uniform Traffic Control Devices for Streets and Highways, Chapter 6 (Temporary Traffic Control), 2009 edition, including Revisions 1 and 2 dated May 2012, published by the Federal Highway Administration. See also 29 CFR 1910.269(w)(6) and 29 CFR 1926.967(g).)**

2. **No citation will be issued under 29 CFR 1910.269, 29 CFR Part 1926, Subpart V, or 29 CFR 1926.502(d)(16)(iii), because a fall arrest system being used by an employee in a bucket-type aerial lift could permit the employee to strike a structure in the event of a fall provided:**
    a) **The employer can demonstrate that it is not possible (considering factors such as the location of the anchorage and the employee's need to move around the bucket) to perform the work using a bucket position and fully**

compliant fall arrest equipment that together would prevent the employee from striking a structure in the event of a fall;

b) **The fall arrest system complies in all other respects with 29 CFR Part 1926, Subpart M;**

c) **The aerial lift is parked with the brakes set and outriggers extended; and**

d) **The employer has taken other reasonable precautions to address any ejection hazards present that could result in injury to the employee in the bucket while the employee is above the structure. (For any aerial lift positioned in an active roadway, reasonable precautions to address ejection hazards include the precautions described in the Manual on Uniform Traffic Control Devices for Streets and Highways, Chapter 6 (Temporary Traffic Control), 2009 edition, including Revisions 1 and 2 dated May 2012, published by the Federal Highway Administration. See also 29 CFR 1910.269(w)(6) and 29 CFR 1926.967(g).)**

3. **For work covered by 29 CFR 1910.269, no citations related to fall protection in aerial lifts will be issued under 29 CFR 1910.132.**

OSHA believes that developing technology will eventually permit more employers doing work covered by 29 CFR 1910.269 and 29 CFR Part 1926, Subpart V to use fall restraint systems in bucket-type aerial lifts. In particular, OSHA is aware that manufacturers of this type of aerial lift are developing buckets with built-in anchorages and that manufacturers of fall protection equipment are developing fall restraint systems that can be used in buckets that do not have built-in anchorages. Thus, OSHA believes that suitable fall restraint systems will eventually become a common practice for protecting employees in bucket-type aerial lifts from falls in all situations, including during ascent and descent and while the bucket is over a structure. Moreover, OSHA recommends that employees using fall arrest systems in any bucket-type or other aerial lifts use the shortest lanyard practicable during ascent and descent, and when working over structures, to maximize worker protection. OSHA intends to monitor the development of fall protection technology for bucket-type aerial lifts and may modify these policies, or adopt additional guidance, in the future.

B. Fall Protection for Work on Towers

Paragraph (g)(2)(iv)(C)(2) of 29 CFR 1910.269 and paragraph (b)(3)(iii)(B) of 29 CFR 1926.954 generally provide that employees in elevated locations more than 1.2 meters (4 feet) above the ground on poles, towers, or similar structures use a personal fall arrest system, work-positioning equipment, or fall restraint system, as appropriate. Paragraph (g)(2)(i) of 29 CFR 1910.269 and paragraph (b)(1)(i) of 29 CFR 1926.954 require that personal fall arrest systems meet the requirements of Subpart M of 29 CFR Part 1926. Furthermore, 29 CFR 1910.269(g)(2)(iv)(B) and 29 CFR 1926.954(b)(3)(ii) specifically provide that personal fall arrest systems must be used

in accordance with 29 CFR 1926.502(d) in Subpart M, which specifies that personal fall arrest systems must "be rigged such that an employee can neither free fall more than 6 feet (1.8m), nor contact any lower level." (See 29 CFR 1926.502(d)(16)(iii).)

Until further notice, no citation will be issued under 29 CFR 1910.269, 29 CFR Part 1926, Subpart V, or 29 CFR 1926.502(d)(16)(iii), because a fall arrest system being used by an employee working on a tower could, in the event of a fall, permit the employee to strike a tower arm that is a lower level, provided:

a) **The employer can demonstrate that it is not possible to perform the work using a work position and fully compliant fall protection equipment that together would prevent the employee from striking the tower arm in the event of a fall; and**
b) **The fall arrest system complies in all other respects with 29 CFR Part 1926, Subpart M.**

C. National Office Resources

Questions regarding these policies should be forwarded through the Regional Office to the Directorate of Enforcement Programs or the Directorate of Construction, as appropriate.

Exhibit C

MEMORANDUM FOR: REGIONAL ADMINISTRATORS

FROM: DOROTHY DOUGHERTY
DEPUTY ASSISTANT SECRETARY

THOMAS GALASSI
DIRECTOR, DIRECTORATE OF
ENFORCEMENT PROGRAMS

JAMES MADDUX
DIRECTOR, DIRECTORATE OF
CONSTRUCTION

SUBJECT: 29 CFR 1910.269 and 29 CFR Part 1926, Subpart V–Enforcement dates

Introduction

On April 11, 2014, OSHA promulgated a final rule revising the general industry and construction standards for work on electric power generation, transmission and distribution installations. The revised standards became effective on July 10, 2014, although some paragraphs have compliance deadlines in 2015.

A Memorandum for Regional Administrators, dated June 20, 2014, and extended on October 28, 2014, and again on December 16, 2014, established a temporary enforcement policy for 29 CFR 1910.269 and 29 CFR Part 1926, Subpart V; that policy provided that OSHA would accept compliance with the prior version of 29 CFR 1910.269 as compliance with revised 29 CFR 1910.269 and 29 CFR Part 1926, Subpart V. This memorandum revokes the temporary citation policy of June 20, 2014, as extended. OSHA will immediately begin enforcing all paragraphs of 29 CFR 1910.269 and 29 CFR Part 1926, Subpart V according to the compliance dates set forth in those rules, except as stated in this memorandum.

A. Training

OSHA is not adopting a general enforcement delay for the training provisions at 29 CFR 1910.269(a)(2) or 29 CFR 1926.950(b). However, the Agency will not cite employers for failing to train employees in the work practices necessary to comply with the provisions addressed elsewhere in this memorandum until the Agency is enforcing those provisions.

B. Information Transfer

Until **June 30, 2015**, no citations will be issued to host employers (as defined at 29 CFR 1910.269(x) and 29 CFR 1926.968) under the information-transfer provisions at 29 CFR

1910.269(a)(3) and 29 CFR 1926.950(c), provided that after **April 30, 2015,** the employer can demonstrate that it is providing contract employers (as defined at 29 CFR 1910.269(x) and 29 CFR 1926.968) with the information, other than information on maximum switching-transient voltages, required by 29 CFR 1910.269(a)(3)(i)(A) and 29 CFR 1926.950(c)(1)(i).

Until **June 30, 2015**, no citations will be issued to contract employers (as defined at 29 CFR 1910.269(x) and 29 CFR 1926.968) under the information-transfer provisions at 29 CFR 1910.269(a)(3) and 29 CFR 1926.950(c).

C. Job Briefing

Until **April 30, 2015**, no citations will be issued under 29 CFR 1910.269(c)(1)(i) or 29 CFR 1926.952(a)(1), which require the employer to provide the employee in charge of the job with all available information that relates to the determination of existing characteristics and conditions.

D. Minimum Approach Distances

The standards give employers until **April 1, 2015,** to comply with revised minimum approach distances for voltages of 5.1 kilovolts and more. See 29 CFR 1910.269 (Table R-3, Note 4) and 29 CFR 1926.960 (Table V-2, Note 4).

Until **January 31, 2016,** for voltages of 169.1 kilovolts and more: (i) no citations will be issued under 29 CFR 1910.269(l)(3)(ii) or 29 CFR 1926.960(c)(1)(ii), which require the employer to determine the maximum anticipated per-unit transient overvoltage; and (ii) OSHA will accept compliance with the minimum approach distances in Table 6 or Tables 10 to 13 in Appendix B to 29 CFR 1910.269 as compliance with 29 CFR 1910.269(l)(3)(i) and 29 CFR 1926.960(c)(1)(i). If peer-reviewed guidance regarding the calculation of maximum transient overvoltages is not available before **May 1, 2015**, OSHA will extend this policy as necessary to give employers time to read and implement such guidance when it becomes available.

Until **January 31, 2016**, for voltages of 72.6 to 169.0 kilovolts, no citations will be issued under 29 CFR 1910.269(l)(3)(ii) or 29 CFR 1926.960(c)(1)(ii), which require the employer to determine the maximum anticipated per-unit transient overvoltage, provided the employer assumes a maximum anticipated per-unit transient overvoltage, phase-to-ground, of 3.0 per unit. If peer-reviewed guidance regarding the calculation of maximum transient overvoltages is not available before **May 1, 2015**, OSHA will extend this policy as necessary to give employers time to read and implement such guidance when it becomes available.

E. Estimates of Available Heat Energy

Until **March 31, 2015**, no citations will be issued under 29 CFR 1910.269(l)(8)(ii) or 29 CFR 1926.960(g)(2), which require the employer to make a reasonable estimate of the incident heat energy exposures faced by each employee exposed to electric arc hazards.

F. Flame Resistant Clothing

Under 29 CFR 1910.269(l)(8)(iv)(A) through (l)(8)(iv)(C) and 29 CFR 1926.960(g)(4)(i) through (g)(4)(iii), employers generally must ensure that the outer layer of clothing worn by an employee is flame resistant under certain conditions. Before **April 1, 2015**, no citations will be issued under 29 CFR 1910.269(l)(8)(iv)(A) through (l)(8)(iv)(C) or 29 CFR 1926.960(g)(4)(i) through (g)(4)(iii) for a failure to wear flame-resistant pants when employees are wearing 11-ounce or heaver weight cotton pants.

G. Arc-rated Protection

The standards give employers until **April 1, 2015**, to comply with 29 CFR 1910.269(l)(8)(v) or 29 CFR 1926.960(g)(5), which generally require employers to ensure that each employee exposed to hazards from electric arcs wears protective clothing and other protective equipment with an arc rating greater than or equal to the estimated heat energy to which he or she would be exposed.

Until **August 31, 2015**, no citations will be issued under 29 CFR 1910.269(l)(8)(v) or 29 CFR 1926.960(g)(5) because an employer failed to provide protective clothing or equipment rated higher than 8 cal/cm^2.

H. Fall Protection in Aerial Lifts

Until **March 31, 2015**, no citations will be issued under 29 CFR 1910.269(g)(2)(iv)(C)(1), which requires employees working from aerial lifts to use fall restraint systems or personal fall arrest systems, to any employer performing line-clearance tree-trimming work covered by 29 CFR 1910.269, provided that the employer ensures that each employee uses a body belt and lanyard attached to the boom or basket of the aerial lift.

From **March 31 to December 31, 2015**, no citations will be issued under 29 CFR 1910.269(g)(2)(iv)(C)(1) to any employer performing line-clearance tree-trimming work covered by 29 CFR 1910.269 provided that the employer is actively testing the use of fall restraint systems in the type of bucket at issue in some or all of its affected aerial lifts and provided the employer ensures that each employee not protected by a fall restraint system or a personal fall arrest system uses a body belt and lanyard attached to the boom of the aerial lift. For purposes of this policy, "actively testing" means that the employer, at a minimum, has coordinated with a manufacturer of fall restraint systems to select appropriate fall restraint equipment, is testing the use of that equipment in the field, and has provided training to affected crews regarding how to use that equipment safely. This policy does not apply to types of aerial lift buckets for which the employer is not actively testing the use of fall restraint systems.

I. Fall Protection in Elevated Locations on Poles, Towers, or Similar Structures

Under 29 CFR 1910.269(g)(2)(iv)(C)(2) and (3) and 29 CFR 1926.954(b)(3)(iii)(B) and (C), employers generally must ensure that employees in elevated locations more than 1.2 meters (4 feet) above the ground on poles, towers, or similar structures use a personal fall arrest system, work-positioning equipment, or fall restraint system, as appropriate. (The standards provide that until **March 31, 2015**, qualified employees climbing or changing location on poles, towers, or similar structures do not need to use fall protection equipment unless conditions could cause the employee to lose his or her grip or footing.) Until **May 31, 2015**, no citations will be issued under 29 CFR 1910.269(g)(2)(iv)(C)(2) or (3) or 29 CFR 1926.954(b)(3)(iii)(B) or (C) to employers complying with the fall protection requirements in the version of 29 CFR 1910.269(g)(2)(v) that was in effect on April 11, 2014.

J. Underground Installations/Work in Manholes and Vaults

Until **February 28, 2015**, no citations will be issued under 29 CFR 1910.269(t)(5) through (t)(7) or 29 CFR 1926.965(f) through (h), which address the movement of cables and protection against faults in underground electrical installations, provided the employer is in compliance with the requirements for underground electrical installations in the version of 29 CFR 1910.269(t)(5) through (t)(7) that was in effect on April 11, 2014.

Exhibit D

MEMORANDUM FOR: REGIONAL ADMINISTRATORS

FROM: DOROTHY DOUGHERTY
DEPUTY ASSISTANT SECRETARY

THOMAS GALASSI
DIRECTOR, DIRECTORATE OF
ENFORCEMENT PROGRAMS

SUBJECT: Clarification of the applicability of 29 CFR 1910.269 to line-clearance tree trimming

The purpose of this memorandum is to clarify the extent to which 29 CFR 1910.269 applies to line-clearance tree trimming.

The general industry standard for work on electric power generation, transmission, and distribution installations, 29 CFR 1910.269, contains requirements applicable to line-clearance tree trimming. (See 29 CFR 1910.269(a)(1)(i)(E).) Line-clearance tree trimming is defined at 29 CFR 1910.269(x) as "[t]he pruning, trimming, repairing, maintaining, removing, or clearing of trees, or the cutting of brush, that is within the following distance of electric supply lines and equipment: (1) For voltages to ground of 50 kilovolts or less – 3.05 meters (10 feet); (2) For voltages to ground of more than 50 kilovolts – 3.05 meters (10 feet) plus 0.10 meters (4 inches) for every 10 kilovolts over 50 kilovolts." The only line-clearance tree trimming OSHA intended to cover under 29 CFR 1910.269 is line-clearance tree trimming performed: (1) for the purpose of clearing space around electric power generation, transmission, or distribution lines or equipment and (2) on behalf of an organization that operates, or that controls the operating procedures for, those lines or equipment. Tree trimming performed on behalf of a homeowner or commercial entity other than an organization that operates, or that controls the operating procedures for, electric power generation, transmission, or distribution lines or equipment is not directly associated with an electric power generation, transmission, or distribution installation and is not covered by 29 CFR 1910.269. In addition, tree trimming that is not for the purpose of clearing space around electric power generation, transmission, or distribution lines or equipment is not directly associated with an electric power generation, transmission, or distribution installation and is not covered by 29 CFR 1910.269.

OSHA intends to issue a correcting amendment to clarify what line-clearance tree trimming work falls within the scope of 29 CFR 1910.269. In the interim, no citations will be issued under 29 CFR 1910.269 with respect to any line-clearance tree trimming that is not done both for the purpose of clearing space around electric power generation, transmission, or distribution lines or equipment and on behalf of an organization that operates, or that controls the operating procedures for, those lines or equipment. However, citations may be issued in the interim under any other standards that apply to such line-clearance tree trimming work. Such standards may include 29 CFR 1910.268 or 29 CFR 1910.331 through 1910.335.

Please share this information with the State Plans and On-Site Consultation Projects in your Region. If you have any questions regarding application of this memorandum, please contact Sherman Williamson in the Directorate of Enforcement Programs.