

NORTH CAROLINA DEPARTMENT OF LABOR  
DIVISION OF OCCUPATIONAL SAFETY AND HEALTH  
RALEIGH, NORTH CAROLINA

Chapter 7  
Subchapter 7F  
NC-OSH

NCAC 9

Field Information System Part I  
Subpart R - Special Industries, Subpart I and Subpart S  
Electric Power Generation, Transmission and Distribution  
Electrical Protective Equipment  
General Industry; Final Rule

**DISCUSSION:**

On January 31, 1994, Federal OSHA promulgated a new standard for General Industry, ***Electric Power Generation, Transmission and Distribution, 29 CFR 1910.269***. Also promulgated with this standard were companion amendments to the citation authority for Subpart S of 1910, amendments to Notes 2 and 3 for 1910.133(c)(1), the Note for 1910.133(c)(3), and amendments to Electrical Protective Equipment, 29 CFR 1910.137. The original effective date was May 31, 1994, however, the Occupational Safety and Health Administration of the U.S. Department of Labor entered into a Settlement Stipulation and Order on May 27, 1994, with Edison Electric Institute, et al. The Stipulation extended the effective dates of specific portions to October 31, 1994. One other portion, "Training" at 1910.269(a)(2), does not become effective until January 31, 1995.

OSHNC has carefully considered the entire new federal standard. Based on a Duke Power Company fatality and ensuing contestment, OSHNC entered into a settlement agreement with Duke Power Company. In that settlement agreement, OSHNC requires a more stringent standard of fall protection from Duke Power than is established by the federal standard. Therefore, OSHNC has promulgated a more protective version of the standard as it applies to fall protection for all power companies. OSHNC is only revising 1910.269(g)(2)(v) which specifically addresses fall protection.

Federal OSHA issued a technical clarification on the types of fabric that meet the clothing requirements of 1910.269(l) which OSHNC also adopts.

**ACTION:**

The amendments to 29 CFR 1910.133 in Subpart S and 29 CFR 1910.137 in Subpart I are adopted verbatim in North Carolina with an effective date of **November 1, 1994**.

The final rule at 29 CFR 1910.269 except for 1910.269(g)(2)(v) is adopted verbatim. The fall protection amendment to 1910.269(g)(2)(v) is more protective than the federal OSHA version; it has been rewritten to require the constant use of fall arrest equipment which provides 100% fall protection when employees are working at heights greater than 4 feet above ground on transmission structures, substation structures, distribution structures and similar structures. Qualified climbers may "free climb" wooden poles if the employer can ensure 4 stipulated conditions including ability of the climber to safely grip the pole, that the pole is free from attachments, impediments, contaminants, etc. that would materially impair the climber's ability, and that the employee is physically able to free climb the wooden pole.

Note 1 and Note 2 of 1910.269(g)(2)(v) are also adopted without change.

The effective date is **January 1, 1995**, except that employers have until **July 1, 1995** to implement the use of locking snap hooks, and employers have until **January 1, 1996** to design and implement a fall protection system for tower work. Also, paragraph 1910.269(a)(2) *Training* is effective **January 31, 1995**, and 1910.269(v)(11)(xii) regarding elimination of sources of ignition in coal-handling operations is effective **February 1, 1996**. A copy of the regulatory text from the Federal Register announcement (Vol. 59, No. 20) and the corrections from the Federal Register announcement (Vol. 59, No. 125) were previously distributed on October 4, 1994, at the quarterly training held at the Duke Power Training Center in Charlotte. Therefore, only a copy of the text of the North Carolina amendment found at 13 NCAC 07F.0101(a)(3) is attached.

Date: 1/6/1995 Charles N. Jeffress, Director  
Division Of Occupational Safety and Health  
(Signed on Original)

Filing Date: March 30, 1994

NC Effective Dates: January 1, 1995, January 31, 1995, July 1, 1995 and January 1, 1996.

Numbers: 13 NCAC 7F.0101(a)(3), 7F.0101(b)(2)(B) and 7F.0101(b)(4)

## **LABOR - OSHA**

T13: 07F.0100

### **SUBCHAPTER 7F - STANDARDS**

#### **SECTION .0100 - GENERAL INDUSTRY STANDARDS**

##### **.0101 GENERAL INDUSTRY**

(a) The provisions for the Occupational Safety and Health Standards for General Industry, Title 29 of the Code of Federal Regulations Part 1910, are incorporated by reference except as follows:

(1) Subpart H - Hazardous Materials, 29 CFR 1910.120, Hazardous waste operations and emergency response, 1910.120(q)(6) is amended by adding a new level of training: "(vi) First responder operations plus level. First responders at operations plus level are individuals who respond to hydrocarbon fuel tank leaks where the leaking tanks contain a hydrocarbon fuel which is used to propel the vehicle on which the tank is located. Only those vehicles designed for highway use or those used for industrial, agricultural or construction purposes are covered. First responders at the operations plus level shall have received at least training equal to first responder operations level and, in addition, shall receive training or have had sufficient experience to objectively demonstrate competency in the following areas and the employer shall so certify:

- (A) Know how to select and use proper specialized personal protective equipment provided to the first responder at operations plus level;
- (B) Understand basic hazardous materials terms as they pertain to hydrocarbon fuels;
- (C) Understand hazard and risk assessment techniques that pertain to gasoline, diesel fuel, propane and other hydrocarbon fuels;
- (D) Be able to perform control, containment, or confinement operations for gasoline, diesel fuel, propane and other hydrocarbon fuels within the capabilities of the available resources and personal protective equipment; and
- (E) Understand and know how to implement decontamination procedures for hydrocarbon fuels."

Subpart I - Personal Protective Equipment - 29 CFR 1910.132, General requirements, is amended at 29 CFR 1910.132(b) to read:

*(b) Equipment. (1) Employer provided equipment.* It is the responsibility of the employer to provide, at no cost to the employee, all personal protective equipment

which the employee does not wear off the jobsite for use off the job.

(2) *Employee-owned equipment.* Where employees provide their own protective equipment, the employer shall be responsible to assure its adequacy, including proper maintenance, and sanitation of such equipment."

(3) Subpart R - Special Industries - incorporation by reference of final rule for 29 CFR 1910.269, Electric Power Generation, Transmission, and Distribution, including Appendices A through E, published in 59 FR (January 31, 1994) pages 4437 - 4475, all typographical and grammatical corrections to 1910.269 as published in 59 FR (June 30, 1994) pages 33660 - 33664, and the the amendment to 1910.269(g)(2)(i) as published in 59 FR (August 9, 1994) page 40729, except that 29 CFR 1910.269(g)(2)(v) is amended to read:

(v) Fall arrest equipment, work positioning equipment, or travel restricting equipment shall be used by employees working at elevated locations more than 4 feet (1.2 m) above the ground on poles, towers or similar structures if other fall protection has not been provided. A fall protection system as defined in 29 CFR 1926, Subpart M - Fall Protection, is required to be used by all employees when ascending, descending or changing locations on poles, towers or similar structures. However, the use of non-locking snap hooks with any fall protection system is prohibited as of July 1, 1995. Qualified employees may free climb wood poles if the employer can ensure (1) that the employee is able to comfortably and safely grip the pole with both hands while climbing, (2) that the -pole is free from attachments or any configurations of attachments that will materially impair the ability of a qualified employee to safely free climb the pole, (3) that the pole is otherwise free from impediments, contaminants or conditions of any type, including but not limited to ice, high winds or chemical treatments which materially impair the ability of a qualified employee to safely free climb the pole, and (4) that the employee is able to climb such structures without material physical impairments including over-exertion, lack of sleep or other physical stresses.".

29 CFR 1910.269 as amended above is effective January 1, 1995, except that employers have until July 1, 1995, to implement the use of locking snap hooks, and employers have until January 1, 1996, to design and implement a system of fall protection for use by employees while ascending, descending or changing locations on towers. Also, 29 CFR 1910.269(a)(2) Training is effective January 31, 1995, and 29 CFR 1910.269(v)(11)(xii) is effective February 1, 1996.

(4) Subpart Z - Toxic and Hazardous Substances:

(A) 29 CFR 1910.1000, Air Contaminants: Re-adoption of revised permissible exposure limits as originally published in 54 FR (January 19, 1989) pages 2496 -2533 and pages 2668 - 2695 as follows:

## "RESPIRATORY EFFECTS

| Chemical Name   | CAS No.    | PEL   |
|---|------------|---|
| Aluminum  | 7429-90-5  | 15 mg/m <sup>3</sup> TWA Total Dust<br>5 mg/m <sup>3</sup> TWA Resp. fraction |
| Bismuth telluride, Undoped                                  | 1304-82-1  | 15 mg/m <sup>3</sup> TWA Total Dust<br>5 mg/m <sup>3</sup> TWA Resp. fraction |
| Chlorine dioxide  | 10049-04-4 | 0. 1 ppm TWA<br>0.3 ppm STEL  |
| Chromium metal (as Cr)                                      | 7440-47-3  | 1 mg/m <sup>3</sup> TWA   |
| Coal Dust (<5% quartz)<br>Resp. fraction                    | None       | 2 mg/m <sup>3</sup> TWA   |
| Coal Dust (>5% quartz)<br>Respirable quartz fraction        | None       | 0.1 mg/m <sup>3</sup> TWA   |
| Ethyl acrylate  | 140-88-5   | 5 ppm TWA<br>25 ppm STEL, Skin  |
| Ferrovanadium dust  | 12604-58-9 | 1 mg/m <sup>3</sup> TVA<br>3 mg/m <sup>3</sup> STEL                           |
| Grain Dust (oat, wheat, barley)                             | None       | 10 mg/m <sup>3</sup> TWA  |
| Graphite, natural,<br>Resp. Dust                            | 7782-42-5  | 2.5 mg/m <sup>3</sup> TVA   |
| Indium and Compounds (as In)                                | 7440-74-6  | 0.1 mg/m <sup>3</sup> TWA   |
| Iron oxide (dust & fume)                                    | 1309-37-1  | 10 mg/m <sup>3</sup> TWA  |
| Methylene bis<br>(4-Cyclohexylisocyanate)                   | 5124-30-1  | 0.01 ppm Ceiling, Skin  |
| Mica, Respirable Dust                                       | 12001-26-2 | 3 mg/m <sup>3</sup> TWA   |
| Nitrogen dioxide  | 10102-44-0 | 1 ppm STEL  |
| Ozone   | 10028-15-6 | 0. 1 ppm TWA<br>0.3 ppm STEL  |
| Paraquat, Respirable Dust                                   | 4685-14-7  | 0.1 mg/m <sup>3</sup> TWA, Skin   |
| Silica, crystalline<br>cristobalite, Respirable Dust        | 14464-46-1 | 0.05 mg/m <sup>3</sup> TWA  |
| Silica, crystalline quartz,<br>Respirable Dust              | 14808-60-7 | 0. 1 mg/m <sup>3</sup> TWA  |
| Silica, crystalline<br>tridymite, Respirable Dust           | 15468-32-3 | 0.05 mg/m <sup>3</sup> TWA  |
| Silica, -crystalline tripoli<br>(as quartz) Respirable Dust | -1317-95-9 | 0. 1 mg/m <sup>3</sup> TWA  |

|  |            |                              |
|--|------------|------------------------------|
| Silica, fused<br>Respirable Dust                         | 60676-86-0 | 0. 1 mg/m3 TWA               |
| Soapstone, total dust<br>tridymite, Respirable Dust      | None       | 6 mg/m3 TWA                  |
| Soapstone, Respirable Dust<br>tridymite, Respirable Dust | None       | 3 mg/m3 TWA                  |
| Sulfur dioxide   | 7446-09-5  | 2 ppm TWA<br>5 ppm STEL      |
| Sulfur tetrafluoride                                     | 7783-60-0  | 0.1 ppm Ceiling              |
| Talc (containing no asbestos)<br>Respirable Dust         | 14807-96-6 | 2 mg/m3 TWA                  |
| Tin oxide (as Sn)  | 7440-31-5  | 2 mg/m3 3 TWA                |
| Trimellitic anhydride                                    | 552-30-7   | 0.005 ppm TWA                |
| Wood dust, hard  | None       | 5 mg/m3 TWA<br>10 mg/m3 STEL |
| Wood dust, soft  | None       | 5 mg/m3 TWA<br>10 mg/m3 STEL |
| Wood dust, allergenic<br>(Western Red Cedar)             | None       | 2.5 mg/m3 TWA                |
| Wood dust, hard  | None       | 5 mg/m3 TWA                  |

## AVOIDANCE OF CANCER

| Chemical Name             | CAS No.   | PEL                  |
|---------------------------|-----------|----------------------|
| Acrylamide                | 79-06-1   | 0.03 mg/m3 TWA, Skin |
| Amitrole                  | 61-82-5   | 0.2 mg/m3 TWA        |
| Carbon tetrachloride      | 56-23-5   | 2 ppm TWA            |
| Chloroform                | 67-66-3   | 2 ppm TWA            |
| Chromic acid              | 1333-82-0 | 0. 1 mg/m3 Ceiling   |
| Dimethyl sulfate          | 77-78-1   | 0.1 ppm TWA, Skin    |
| 2-Nitropropane            | 79-46-9   | 10 ppm TWA           |
| Perchloroethylene         | 127-18-4  | 25 ppm TWA           |
| o-Toluidine               | 95-53-4   | 5 ppm TWA, Skin      |
| p-Toluidine               | 106-49-0  | 2 ppm TWA, Skin      |
| Vinyl bromide             | 593-60-2  | 5 ppm TWA            |
| Vinyl cyclohexene dioxide | 106-87-6  | 10 ppm TWA, Skin."   |

(B) Incorporation by reference of modified final rule for 29 CFR 1910.1200, Hazard Communication

including Appendices A through E, published in 59 FR (February 9, 1994) pages 6170 - 6184 except that 1910.1200(b)(6)(ii) is amended to read: "(ii) Any hazardous substance as such term is defined by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (42 U.S.C. 9601 et seq), when regulated as a hazardous waste under that Act by the Environmental Protection Agency."

(b) The parts of the Code of Federal Regulations adopted by reference in this Subchapter shall not automatically include any subsequent amendments thereto, except as follows

(1) Subpart H - Hazardous Materials:

(A) Technical corrections at 1910.109(g)(4)(v), Explosives and Blasting Agents, published in 58 FR (March 29, 1993) page 16496 and effective on December 31, 1993.

(B) Technical corrections at 1910.110(d)(11), Storage and Handling of Liquefied Petroleum Gases, published in 58 FR (March 19, 1993) page 15089 and effective on December 31, 1993.

(C) Technical amendments to the existing Appendix B and addition of non-mandatory Appendix E to 1910.120, Hazardous waste operations and emergency response as published in 59 FR (August 22, 1994) pages 43270 - 43280 and effective on November 1, 1994.

**Subpart I -- Personal Protective Equipment:**

(A) Addition of paragraphs (d), (e) and (f) to 1910.132 -General requirements; revisions to 1910.133 Eye and face protection, 1910.135 - Head protection, 1910.136 - Foot protection; and addition of 1910.138 - Hand protection, including non-mandatory Appendices A and B, published in 59 FR (April 6, 1994) pages 16360 - 16364 and effective on September 1, 1994; addition of paragraph (g) to 1910.132 - General requirements; technical and clarifying amendments to 1910.133 - Eye and face protection, 1910.136 - Foot protection, and 1910.138 - Hand protection, as published in 59 FR (July 1, 1994) pages 33910 - 33911 and effective on September 1, 1994.

(B) Revisions to 1910.137, Electrical Protective Equipment, published in 59 FR (January 31, 1994) pages 4435 - 4437 and effective on November 1, 1994.

(3) Subpart J - General Environmental Controls - typographical and clarifying corrections at 1910.146, Permit-Required Confined Spaces, published in 58 FR (June 29, 1993) pages 34844 - 34851 and effective on September 24, 1993; a metric equivalent addition of "1.52 m" to 1910.146 (k) (3) (ii) and revisions to "Atmospheric monitoring" section of Appendix E as published in 59 FR (May 19, 1994) pages 26114 - 26116 and effective on September 1, 1994; corrections are to final rule for Permit-Required Confined Spaces as originally published in 58 FR 4462 (January 14, 1993).

(4) Subpart S - Electrical - amendment to citation authority for Subpart S of 1910, and amendments to Notes 2 and 3 for 1910.133(c)(1) and the Note for 1910.133(c)(3), published in 59 FR (January 31, 1994) pages 4475 - 4576 and effective on November 1, 1994.

(5) Subpart Z - Toxic and Hazardous Substances:

(A) Revision of Authority Citation for Subpart Z of Part 1910 published in 59 FR (July 19, 1994) pages 36699 - 36700 and effective on November 1, 1994.

(B) Revocation of exposure limits in "Final rule limits" columns of Table Z-1-A at 1910.1000, Air Contaminants, published in 58 FR (June 30, 1993) pages 35338 - 35351 and effective on September 24, 1993.

(C) Correction to Table Z-3 Mineral Dust at 1910.1000, Air Contaminants, published in 58 FR (July 27, 1993) page 40191 and effective on December 31, 1993.

(D) Typographical and technical corrections at 1910.1027, Cadmium, published in 58 FR (April 23, 1993) pages 21778 - 21787 and effective on September 24, 1993; corrections are to final rule for Occupational Exposure to Cadmium as originally published in 57 FR 42101 (September 14, 1992).

(E) Addition of 1910.1201 "Retention of DOT markings, placards, and labels," published in 59 FR (July 19, 1994) pages 36699 - 36700 and effective on November 1, 1994.

(c) Copies of the applicable Code of Federal Regulations sections referred to in this Subchapter are available to the public. Please refer to 13 NCAC 7A .0302 for the costs involved and from whom copies may be obtained.

*History Note: Filed as a Temporary Amendment Eff. August 16, 1993, for a Period of 180 Days or Until the Permanent Rule Becomes Effective, Whichever is Sooner;*

*Statutory Authority G. S. 95-131; 95-133; 150B-21.6; Eff. August 2, 1993; Amended Eff. January 1, 1995; November 1, 1994; September 1, 1994; August 1, 1994.*

## **.0102 LIFE SAFETY CODE**

All places of employment shall be designed, constructed, maintained, and occupied in accordance with the standards set out in the 1991 edition of the Code for Safety to Life from Fire in Buildings and Structures, ANSI/NFPA 101, which is hereby incorporated by reference. This incorporation shall not include any subsequent editions or amendments to this code. Copies of this code may be obtained from the National Fire Protection Association, 1 Batterymarch Park, Quincy, Massachusetts 02269, for twenty-seven dollars and fifty cents (\$27.50). This rule supersedes any standards based on earlier editions of the Life Safety Code.

*History Note: Statutory Authority G. S. 95-131; Eff. April 1, 1992, Recodified from 13 NCAC 7C.0107 Eff. August 2, 1993.*