

*SPECIAL NEEDS: Any persons with special needs as addressed by the Americans with Disabilities Act should contact the Missouri Public Service Commission at least ten (10) days prior to the hearing at one (1) of the following numbers: Consumer Services Hotline 1-800-392-4211 or TDD Hotline 1-800-829-7541.*

**Title 4—DEPARTMENT OF ECONOMIC  
DEVELOPMENT  
Division 240—Public Service Commission  
Chapter 18—Safety Standards**

**PROPOSED AMENDMENT**

**4 CSR 240-18.010 Safety Standards for Electrical Corporations, Telecommunications Companies and Rural Electric Cooperatives.**  
The commission is amending the purpose of the rule and section (1).

*PURPOSE: This amendment changes the edition of the National Electrical Safety Code that the Public Service Commission adopts for the minimum safety standards applicable to electrical corporations, telecommunications companies, and rural electric cooperatives, and clarifies that the new standards apply only to new installations and extensions.*

*PURPOSE: This rule prescribes minimum safety standards relating to the operation of electric utilities, telecommunications companies, and rural electric cooperatives. Adoption of this rule will [not only] inform the utilities of the minimum safety standards required by the commission and will be of assistance to the commission staff in carrying out its assigned duties.*

(1) The minimum safety standards relating to the operation of electrical corporations, telecommunications companies, and rural electric cooperatives are Parts 1, 2, and 3 and Sections 1, 2, and 9 of the *National Electrical Safety Code (NESC)*; [2007] 2012 Edition as approved by the American National Standards Institute on [June 16, 2006] August 1, 2011, as modified by Errata thereto issued on [October 5, 2006 and May 14, 2007] February 6, 2012, and published by the Institute of Electrical and Electronics Engineers, Inc., 3 Park Avenue, New York, NY 10016-5997. The NESC is composed of four (4) different parts and four (4) sections, each of which pertain to different aspects of the electric and telecommunications industries. Part 1 specifies rules for the installation and maintenance of equipment normally found in electric generating plants and substations. Part 2 pertains to safety rules for overhead electric and communication lines. Part 3 contains safety rules for underground electric and communication lines. Section 1 is an introduction to the NESC, Section 2 defines special terms, and Section 9 requires certain grounding methods for electric and communications facilities. The full text of this material is available at the Energy Department of the Public Service Commission, Suite 700, 200 Madison, Jefferson City, Missouri. This rule does not incorporate any subsequent amendments or additions.

*AUTHORITY: sections 386.310 and 394.160, RSMo 2000. Original rule filed March 15, 1978, effective Oct. 2, 1978. For intervening history, please consult the Code of State Regulations. Amended: Filed Aug. 1, 2013.*

*PUBLIC COST: This proposed amendment will not cost state agencies or political subdivisions more than five hundred dollars (\$500) in the aggregate.*

*PRIVATE COST: This proposed amendment will cost private entities \$4,834,800 to \$5,314,800 in the aggregate over the three- (3-) year life expectancy of the rule.*

*NOTICE TO SUBMIT COMMENTS AND NOTICE OF PUBLIC HEARING: Anyone may file comments in support of or in opposition to this proposed amendment with the Missouri Public Service Commission, Morris L. Woodruff, Secretary of the Commission, PO Box 360, Jefferson City, MO 65102. To be considered, comments must be received at the commission's offices on or before October 3, 2013, and should include a reference to Commission Case No. EX-2012-0332. If comments are submitted via a paper filing, an original and eight (8) copies of the comments are required. Comments may also be submitted via a filing using the commission's electronic filing and information system at <http://www.psc.mo.gov/efis.asp>. A public hearing regarding this proposed amendment is scheduled for October 4, 2013, at 10:00 a.m., in Room 305 of the Governor Office Building, 200 Madison St., Jefferson City, Missouri. Interested persons may appear at this hearing to submit additional comments and/or testimony in support of or in opposition to this proposed amendment, and may be asked to respond to commission questions.*

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**FISCAL NOTE  
PRIVATE COST**

- I. Department Title:**  
**Division Title:**  
**Chapter Title:**

<b>Rule Number and Title:</b>	4 CSR 240-18.010 Safety Standards for Electrical Corporations, Telecommunications Companies and Rural Electric Cooperatives
<b>Type of Rulemaking:</b>	Proposed Amendment

**II. SUMMARY OF FISCAL IMPACT**

Estimate of the number of entities by class which would likely be affected by the adoption of the rule:	Classification by types of the business entities which would likely be affected:	Estimate in the aggregate as to the cost of compliance with the rule by the affected entities:
4	<b>Investor Owned Utilities</b>	
	<b>Ameren Missouri</b>	1. \$381,600 Annually 2. Negligible 3. Negligible 4. \$2.3M over 2 years
	<b>Empire District Electric Company</b>	\$30,000 to \$190,000, annually
	<b>Kansas City Power &amp; Light and Kansas City Power &amp; Light Greater Missouri Operations, combined</b>	\$50,000 annually
<b>Total Fiscal Impact Costs:</b>		<b>\$4,834,800 to \$5,314,800 over the 3-year life expectancy of the rule.</b>

**II. WORKSHEET****Ameren Missouri:**

- 1. Guy Insulator Placement** – Rule 215C4 regarding use of insulators in down guys and span guys may have a significant cost impact. The revised rule may require guy insulators to be daisy chained from pole attachment to below the lowest Ameren conductor. On May 1, 2012, Distribution Standards submitted a request for interpretation to the NESC Interpretations Committee to clarify the intent of this rule change. Typical response time is 1 year
- 2. Wood Pole Class Design Selection** – For poles longer in length than 55 feet, Rules 261A2a and 261A2b were revised to require evaluation of all applied loading moments on the structure (conductor attachment points) instead of just the resultant ground-line loading moment. This could potentially lead to use of higher class poles or shorter span lengths. However, Distribution Standards believes our current use of Class 1 poles as a minimum for subtransmission



construction will negate the impact of these rule changes. Also, these rule changes will not typically apply to 15kV and below structures due to use of poles shorter than 55 feet in length.

3. **Conductor Design Tension Limits** – Rule 261H was revised regarding the 35% Initial Unloaded Tension and 25% Final Unloaded Tension limits. This rule change now requires these conductor design tension limits to be evaluated at 0° F instead of 60° F. This will have no impact on our standard distribution construction (span lengths 300 feet or less). Longer spans may require taller poles due to the reduced tensions and greater sags that this rule change imposes on the longer spans.
4. **Protective Measures for ARC Exposure** – Table 410-1 was added to cover required rating of clothing for worker exposure to voltages 1 kV and less. This will have a significant cost impact to Ameren for work activity on 480V equipment.

**Empire District Electric Company:**

See Attached.

**Kansas City Power & Light and Kansas City Power & Light Greater Missouri Operations:**

N/A

**IV. ASSUMPTIONS**

**Ameren Missouri:**

1. **Guy Insulator Placement** - If the daisy chaining of guy insulators is required, the cost increase to Ameren is estimated to approach **\$381,600 per year**. This is based on a material cost difference of \$53/guy wire with 7200 guy wires installed per year in Missouri.
2. **Wood Pole Class Design Selection** - The overall material cost impact will be negligible.
3. **Conductor Design Tension Limits** - The overall cost impact to Ameren should be negligible.
4. **Protective Measures for ARC Exposure**- Ameren is proposing to replace 66 480V network protectors over a two year time frame. **Total cost is estimated at \$2.3M for materials and labor to accomplish this.**

**Empire District Electric Company:**

See Attached.

**Kansas City Power & Light and Kansas City Power & Light Greater Missouri Operations:**

N/A

### Assumptions of Empire District Electric Company

#### NESC 2012 Changes and their Financial Impact.

##### Scope and Purpose section 010 and 011

Language and illustrations added clarify the purpose of the NESC, and the line of demarcation between facilities covered by the NESC and NEC.

**No net financial impact to EDE.**

##### Grounding Section 9

Changes were made to the definition of effectively grounded, and items required to be grounded thus must meet the new definition.

The distance between multiple driven ground rods is now specified, as well as some requirements for guarding of grounding conductors where required. The conditions required to count a direct embedded steel pole as a ground are defined.

**No net financial impact to EDE.**

##### Substations Section 11

Changes modified the clearance to live parts guarded by an impenetrable fence. Rules regarding storage of materials in the substation, lighting levels, and necessity of fire extinguishing equipment were addressed.

**No net financial impact to EDE.**

##### General Requirements Overhead Lines section 21

Records of inspection of facilities must be kept until defects are remedied. Guy wires must be either grounded or insulated, and the insulators placed to limit the likelihood of conducting electricity between other conductors or equipment installed on the structure. Physical protection or guarding shall be provided for structures in parking lots. Readily climbable structures adjacent to traveled ways shall be equipped with barriers to inhibit climbing or posted with appropriate safety signs. Climbing steps shall begin at least 8 ft above ground. Guys in parking areas shall be either protected from vehicle damage or clearly marked. No Attachment or decoration shall be attached to any structure without permission of the owner, and it must not create a code violation.

##### Clearances Section 23

Added a climate zone for "warm Islands", defined the communication space more clearly, and specified clearances to guys are to be based on maximum operating voltage, not nominal.

**No net financial impact to EDE.**

##### Grades of Construction Section 24



Communication conductors are required to meet the same grade of construction as supply conductors on the same pole.

**No net financial impact to EDE.**

Loadings for Grades B and C Section 25

The alternate (grandfathered) method of applying load factors to poles is no longer permitted in this edition.

**No net financial impact to EDE.**

Strength Requirements Section 26

Wood structures of total length 60 feet and greater shall be designed to withstand the appropriate factored loads at the point of maximum stress, not at the groundline. Single composite crossarms equivalent or greater in strength may be substituted for double wood crossarms.

**This will have considerable impact to EDE. The analysis of poles will be more time consuming, and heavier class poles will be required. Estimated impact is approximately \$60,000 per year.**

Line Insulation Section 27

Guy insulators must have a dry flashover rating at least twice that of the nominal voltage between conductors of the guyed circuit, and must be UV protected.

**This will have an impact on EDE, as manufacturers currently do not publish electrical ratings for the guy strain insulators, and more guy insulators will be required. Estimate of one additional insulator per anchor guy would cost approximately \$100,000.00 per year.**

Work Rules Part 4

The requirements for arc flash personal protective equipment are extended to voltages down to 50V. The table for minimum approach distances has been simplified.

**This will have an impact on EDE, as Arc Flash Protective equipment will need to be worn in additional work conditions. Although we currently provide arc flash apparel, there is a cost to Empire significantly greater than the \$500 threshold to meet requirements of latest version of the NESC Part 4; Work Rules. The purchase of remote equipment to provide employee protection is significant. In addition, other significant costs for PPE was needed for certain job tasks that apply to Part 4; Work Rules as well. As well, the time and labor involved in analyzing specific tasks is consuming.**

**What we had previously provided for typical overhead & underground job tasks was sufficient for Part 4; Work Rules. Estimated cost is \$30,000 initially with ongoing replacement costs.**

**Title 10—DEPARTMENT OF NATURAL RESOURCES**  
**Division 10—Air Conservation Commission**  
**Chapter 6—Air Quality Standards, Definitions, Sampling**  
**and Reference Methods and Air Pollution Control**  
**Regulations for the Entire State of Missouri**

**PROPOSED AMENDMENT**

**10 CSR 10-6.200 Hospital, Medical, Infectious Waste Incinerators.**

The commission proposes to amend subsections (1)(E), (1)(H), (2)(A), (3)(A), (3)(B), and (3)(E). If the commission adopts this rule action, it will be the department's intention to submit this rule amendment to the U.S. Environmental Protection Agency to replace the current rule that is in the Missouri State Plan for Designated Facilities and Pollutants pursuant to section 111(d) of the Clean Air Act for hospital, medical, and infectious waste incinerators. The evidence supporting the need for this proposed rulemaking is available for viewing at the Missouri Department of Natural Resources' Air Pollution Control Program at the address listed in the Notice of Public Hearing at the end of this rule. More information concerning this rulemaking can be found at the Missouri Department of Natural Resources' Environmental Regulatory Agenda website, [www.dnr.mo.gov/regs/index.html](http://www.dnr.mo.gov/regs/index.html).

*PURPOSE: This rule establishes emission limits for existing hospital, medical, and infectious waste incinerators. The pollutants regulated include metals, particulate matter, acid gases, organic compounds, carbon monoxide, and opacity. This rule includes requirements for operator training and qualification, waste management, compliance and performance testing, monitoring, and reporting/record keeping. This amendment will remove the exemption for start-up, shutdown, and malfunction events to maintain consistency with federal regulations; clarify the hierarchy of definitions; and update the references to the test methods used to determine compliance. The evidence supporting the need for this proposed rulemaking, per 536.016, RSMo, is Federal Register notices 78 FR 12460, dated February 22, 2013, and 78 FR 28052, dated May 13, 2013.*

**(1) Applicability.**

(E) Any combustor which meets the applicability requirements under [s/Subpart Cb, Ea, or Eb of 40 CFR [part] 60] is not subject to this rule.

(H) Physical or operational changes made to an HMIWI unit solely for the purpose of complying with this rule are not considered a modification and do not result in an HMIWI unit becoming subject to the provisions of 40 CFR [part] 60, [s/Subpart Ec].

**(2) Definitions.**

(A) Definitions of certain terms specified in this rule, *other than those defined in this rule section, may be found in the Clean Air Act and in 40 CFR Part 60, subparts A, B, and Ec* may be found in 40 CFR 60.21 and 40 CFR 60.51c, promulgated as of July 1, 2012, and are hereby incorporated by reference in this rule, as published by the Office of Federal Register, U.S. National Archives and Records, 700 Pennsylvania Avenue NW, Washington, DC 20408. This rule does not incorporate any subsequent amendments or additions.

**(3) General Provisions.**

**(A) Emission Limits.**

1. No owner or operator of an HMIWI subject to this rule shall cause to be discharged into the atmosphere any gases that contain stack emissions in excess of the limits presented in Table 1 of this subsection, except as provided for in paragraph (3)(A)2. of this rule.