

IOWA UTILITIES BOARD

<p>IN RE:</p> <p>EXECUTIVE ORDER 10 — REVIEW OF IOWA ELECTRICAL SAFETY CODE RULES [199 IOWA ADMINISTRATIVE CODE CHAPTER 25]</p>	<p>DOCKET NO. RMU-2023-0025</p>
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ORDER OPENING DOCKET AND SETTING TECHNICAL CONFERENCE AND COMMENT DEADLINE

On January 10, 2023, Gov. Kim Reynolds issued Executive Order Number 10 (Executive Order), which put a moratorium on agency rulemaking and directed agencies, including the Utilities Board (Board), to engage in a comprehensive evaluation of existing rules. The goals of the Executive Order include increasing public input in the rulemaking process, eliminating rules that do not provide substantial benefits to Iowans, reducing the page and word count of the Iowa Administrative Code, and reducing restrictive rule language. As a part of the comprehensive review, agencies are required to repeal each rules chapter and evaluate whether the chapter, or a portion of the chapter, should be re-promulgated. To assist agencies in performing their comprehensive reviews, the Iowa Department of Management developed and published forms and processes.

Pursuant to the Executive Order, the Board is conducting comprehensive reviews of each chapter of its administrative rules, and the Board will open the above-captioned docket for purposes of conducting a comprehensive review of chapter 25, which contains the Board's Iowa Electrical Safety Code rules. Attached to this order as

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Attachment A is the Board's retrospective analysis (Red Tape Review Rule Report) of chapter 25, which the Board will publish on the Board's website as required by section III.B of the Executive Order. Attached to this order as Attachment B is the Board's draft regulatory analysis of chapter 25, which the Board will submit in the legislative Rules Management System for publication in the Iowa Administrative Bulletin. Finally, attached to this order as Attachment C is a draft version of chapter 25 that the Board is evaluating whether to re-promulgate.

The Board is also scheduling a technical conference for April 23, 2024. Participation may occur in person or by webinar. The purpose of the technical conference is to receive comments regarding the draft regulatory analysis and the proposed version of chapter 25 to be re-promulgated. Additionally, the Board is accepting written comments concerning the regulatory analysis and the proposed re-promulgated version of chapter 25 through April 23, 2024. The Board will use the oral and written comments received to prepare a final version of the regulatory analysis, which will be uploaded in this docket and published on the Board's website.

IT IS THEREFORE ORDERED:

1. Docket No. RMU-2023-0025 is opened for purposes of conducting a comprehensive review of 199 Iowa Administrative Code chapter 25 pursuant to Executive Order Number 10.

2. A technical conference is set for 2 p.m. April 23, 2024, in the Utilities Board hearing room, located at 1375 East Court Avenue, Des Moines, Iowa. Interested persons may appear in person or by webinar. Information for attending by webinar can be found on the Utilities Board's website on the Hearing and Meeting Calendar page.

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3. Comments regarding the draft regulatory analysis or the proposed version chapter 25 shall be filed by April 23, 2024.

UTILITIES BOARD

Erik M. Helland 2024.03.13
16:17:06 -05'00'

Joshua Byrnes Date: 2024.03.14
12:36:48 -05'00'

ATTEST:

Keetah A Horras Date: 2024.03.14
14:51:34 -05'00'

Sarah Martz Date: 2024.03.13
15:38:51 -05'00'

Dated at Des Moines, Iowa, this 14th day of March, 2024.

**Red Tape Review Rule Report
(Due: September 1, 2025)**

Department Name:	Iowa Utilities Board	Date:	March 4, 2024	Total Rule Count:	5 rules in chapter 25
IAC #:	199	Chapter/ SubChapter/ Rule(s):	199 IAC Chapter 25	Iowa Code Section Authorizing Rule:	Iowa Code §§ 476.1, 476.1B, 476.2, 76A.12, 478.19, 478.20
Contact Name:	Carter Wright	Email:	Carter.wright@iub.iowa.gov	Phone:	515-725-7353

PLEASE NOTE, THE BOXES BELOW WILL EXPAND AS YOU TYPE

What is the intended benefit of the rule?

The intended benefit of chapter 25 is to promote safe and adequate service to the public, provide standards for uniform and reasonable practices by utilities, and to establish a basis for determining the reasonableness of such demands as may be made by the public upon the utilities. The rule provides references to nationally recognized standards in the industry along with some modifications of those standards to better align with the regulatory system in Iowa.

Is the benefit being achieved? Please provide evidence.

The benefit is being achieved through the following of industry approved best practices, which establish safe and reasonable standards for utilities to follow, as well as require reporting of incidents that occur that could cause danger to the public.

What are the costs incurred by the public to comply with the rule?

There are some costs such as requiring utilities to report incidents and to follow certain standards or practices, and those costs can be passed on to customers through rates.

What are the costs to the agency or any other agency to implement/enforce the rule?

The Utilities Board costs are for required inspector reviews of the electric lines for their compliance with the rule and the cost required to review and investigate any incidents that are reported due to the requirements in the rule.

Do the costs justify the benefits achieved? Please explain.

Chapter 25 provides standards that utilities will follow to ensure safe and reasonable practices are followed when the electrical lines are maintained. This provides for public safety and the requirements for incident reporting helps the Utilities Board become aware, and potentially investigate any potential safety violations committed by utilities.

Are there less restrictive alternatives to accomplish the benefit? YES NO

If YES, please list alternative(s) and provide analysis of less restrictive alternatives from other states, if applicable. If NO, please explain.

ATTACHMENT A

This chapter provides the references and the adjustments and additional safety requirements that are needed for electrical utility to be safely provided in Iowa. The chapter also provides the utilities information regarding how inspection and maintenance should be completed on the electrical supply lines and substations, along with information on how to correct problems found during inspections and what accidents must be reported to the Utilities Board. This chapter is the least restrictive method to accomplish the safety and reliability benefits as the chapter is using industry standard information regarding the safety standards. Additionally, corrective action and reporting requirements are maintained at levels that provide the safety and reliability needed by Iowa customers without overburdening the utility companies.

Does this chapter/rule(s) contain language that is obsolete, outdated, inconsistent, redundant, or unnecessary language, including instances where rule language is duplicative of statutory language? [list chapter/rule number(s) that fall under any of the above categories]

PLEASE NOTE, THE BOXES BELOW WILL EXPAND AS YOU TYPE

- 199 IAC 25.1 – Removed restrictive language.
- 199 IAC 25.2 – Removed restrictive and unnecessary language and updated outdated information.
- 199 IAC 25.3 – Updated language for clarity.
- 199 IAC 25.4 – Removed restrictive language.
- 199 IAC 25.5 – Removed restrictive language and updated language for clarity.

RULES PROPOSED FOR REPEAL (list rule number[s]):

N/A

RULES PROPOSED FOR RE-PROMULGATION (list rule number[s] or include rule text if available):

CHAPTER 25
IOWA ELECTRICAL SAFETY CODE

199—25.1(476,476A,478) General information.

25.1(1) Authority. The standards relating to electric and communication facilities in this chapter are prescribed by the Iowa utilities board pursuant to Iowa Code sections 476.1, 476.1B, 476.2, 476A.12, 478.19, and 478.20.

25.1(2) Purpose. The purpose of this chapter is to promote safe and adequate service to the public, to provide standards for uniform and reasonable practices by utilities, and to establish a basis for determining the reasonableness of such demands as may be made by the public upon the utilities. The rules apply to electric and communication utility facilities located in the state of Iowa and supersede all conflicting rules of any such utility. In no way does this rule relieve any utility from any of its duties under the laws of this state.

25.1(3) Definition of utility. For the purpose of this chapter, a utility is any owner or operator of electric or communications facilities subject to the safety jurisdiction of the board.

199—25.2(476,476A,478) Iowa electrical safety code defined. The standard minimum requirements for the installation and maintenance of electric substations, generating stations, and overhead and underground electric supply or communications lines adopted below, collectively constitute the “Iowa Electrical Safety Code.”

ATTACHMENT A

25.2(1) National Electrical Safety Code. The American National Standards Institute (ANSI) C2-2023, “National Electrical Safety Code” (NESC), including issued Correction Sheets, is adopted as part of the Iowa electrical safety code, except Part 4, “Rules for Operation of Electric Supply and Communications Lines and Equipment,” which is not adopted by the board.

25.2(2) Modifications and qualifications to the NESC. The standards set forth in the NESC are modified or qualified as follows:

a. Introduction to the National Electrical Safety Code. NESC 013A2 is modified to read as follows: “Types of construction and methods of installation other than those specified in the rules may be used experimentally to obtain information, if done where:

1. Qualified supervision is provided,
2. Equivalent safety is provided,
3. On joint-use facilities, all joint users are notified in a timely manner, and
4. Prior approval is obtained from the Iowa utilities board.”

b. Minimum clearances.

(1) In any instance where minimum clearances are provided in Iowa Code chapter 478 which are greater than otherwise required by these rules, the statutory clearances prevail.

(2) The following clearances apply to all lines regardless of date of construction: NESC 232, vertical clearances for “Water areas not suitable for sailboating or where sailboating is prohibited,” “Water areas suitable for sailboating . . .,” and “Established boat ramps and associated rigging areas . . .”; and NESC 234E, “Clearance of Wires, Conductors, Cables or Unguarded Rigid Live Parts Installed Over or Near Swimming Areas With No Wind Displacement.”

(3) Table 232-1, Footnote 21, is changed to read: “Where the U.S. Army Corps of Engineers or the state, or a surrogate thereof, issues a crossing permit, the clearances of that permit govern if equal to or greater than those required herein. Where the permit clearances are less than those required herein and water surface use restrictions on vessel heights are enforced, the permit clearances may be used.”

(4) Except for clearances near grain bins, for measurements made under field conditions, the board will consider compliance with the overhead vertical line clearance requirements of Subsection 232 and Table 232-1 of the 1987 NESC indicative of compliance with the 1990 through 2017 editions of the NESC. (For an explanation of the differences between 1987 and subsequent code edition clearances, see Appendix A of the 1990 through 2017 editions of the NESC.)

c. Reserved.

d. Rule 217C1 is changed to read:

“The ground end of at least one guy per anchor shall be provided with a substantial marker not less than eight feet long. The guy marker shall be of a conspicuous color such as yellow, orange, or red. Noncomplying guy markers shall be replaced as part of the utility’s inspection and maintenance plan.”

e. There is added to Rule 381G:

(3) Pad-mounted and other aboveground equipment not located within a fenced or otherwise protected area shall have affixed to its outside access door or cover a prominent “Warning” or other appropriate sign of highly visible color, warning of hazardous voltage and including the name of the utility. This rule applies to all signs placed or replaced after June 18, 2003.

f. There is added to the first paragraph of Rule 110A1, after the sentence stating, “Entrances not under observation of an authorized attendant shall be kept locked,” the following sentences:

Entrances may be unlocked while authorized personnel are inside. However, if unlocked, the entrance gate must be fully closed, and latched or fastened if there is a gate-latching mechanism.

g. Lines crossing railroad tracks will comply with the additional requirements of 199 IAC 42.6(476), “Engineering standards for electric and communications lines.”

25.2(3) Grain bins.

a. Electric utilities shall conduct or participate in annual public information campaigns to inform farmers, farm lenders, grain bin merchants, and city and county zoning officials of the hazards of and standards for construction of grain bins near power lines.

b. An electric utility may refuse to provide electric service to any grain bin built near an existing electric line which does not provide the clearances required by the American National Standards Institute (ANSI) C2-2023 “National Electrical Safety Code,” Rule 234F. This paragraph “*b*” applies only to grain bins loaded by portable augers, conveyors or elevators and built after September 9, 1992, or to grain bins loaded by permanently installed augers, conveyors, or elevator systems installed after December 24, 1997.

25.2(4) General rules.

a. *Joint-use construction.* Where it is mutually agreeable between an electric utility and a communication or cable television company, communication circuits or cables may be buried in the same trench or attached to the same supporting structure, provided this joint use is permitted by, and is constructed in compliance with, the Iowa electrical safety code.

b. Lines. In order to limit the residual currents and voltages arising from line unbalances, the resistance, inductance, capacitance and leakage conductance of each phase conductor of an electric supply circuit in any section shall be as nearly equal as practical to the corresponding quantities in the other phase conductors in the same section.

The ampacity of a multigrounded neutral conductor of an electric supply circuit shall be adequate for the load that it carries. The ampacity of a multigrounded neutral conductor of an electric supply circuit shall not be less than 60 percent of that of any phase conductor with which it is associated, except for three phase four wire wye circuits where it shall have ampacity not less than 50 percent of that of any associated phase conductor. In no case shall the resistance of a multigrounded neutral conductor exceed 3.6 ohms per mile. (This does not modify the mechanical strength requirements for conductors.) A multigrounded conductor installed and utilized primarily for lightning shielding of the associated phase conductors need not comply with the above percentage ampacity requirements for neutral conductors.

Where the neutral conductor of the electric supply circuit is not multigrounded or in an inductive exposure involving communication or signal circuits and equipment where the controlling frequencies are 360 Hertz or lower, any neutral conductor shall have the same ampacity as the phase conductors with which it is associated.

25.2(5) Other references adopted.

a. The “National Electrical Code,” ANSI/NFPA 70-2023, is adopted as a standard of accepted good practice for customer-owned electrical facilities beyond the utility point of delivery, except for installations subject to the provisions of the state fire marshal standards in 661—504.1(103).

b. “The Lineman’s and Cableman’s Handbook,” Fourteenth Edition; Shoemaker, Thomas M. and Mack, James E.; New York, McGraw-Hill Book Co., is adopted as a recommended guideline to implement the “National Electrical Safety Code” or “National Electrical Code,” and for developing the inspection and maintenance plans required by 199—25.3(476,478).

199—25.3(476,478) Inspection and maintenance plans.

25.3(1) Filing of plan. Each electric utility shall adopt and file with the board a written plan for inspecting and maintaining its electric supply lines and substations (excluding generating stations) in order to determine the necessity for replacement, maintenance, and repair, and for tree trimming or other vegetation management. If the plan is amended or altered, revised copies of the appropriate plan pages shall be filed.

25.3(2) Annual report. Each investor-owned, rate-regulated utility shall include as part of its annual report to the board, as required by 199—Chapter 23, certification of compliance with each area of the inspection and maintenance plan required by subrule 25.3(1) or a detailed statement on areas of noncompliance.

25.3(3) Contents of plan. The inspection plan includes the following elements:

a. General. A listing of all counties or parts of counties in which the utility has electric supply lines in Iowa. If the utility has district or regional offices responsible for implementation of a portion of the plan, the addresses of those offices and a description of the territory for which they are responsible shall also be included.

b. Inspection of lines, poles, and substations.

(1) Inspection schedules. The plan shall contain a schedule for the periodic inspection of the various units of the utility’s electric plant. The period between inspections shall be based on accepted good practice in the industry, but for lines and substations shall not exceed ten years for any given line or piece of equipment. Lines operated at 34.5 kV or above shall be inspected at least annually for damage and to determine the condition of the overhead line insulators.

(2) Inspection coverage. The plan shall provide for the inspection of all supply line and substation units within the adopted inspection periods and shall include a complete listing of all categories of items to be checked during an inspection.

(3) Conduct of inspections. Inspections shall be conducted in a manner conducive to the identification of safety, maintenance, and reliability concerns or needs.

(4) Instructions to inspectors. Copies of instructions or guide materials used by utility inspectors in determining whether a facility is in acceptable condition or in need of corrective action or further investigation.

c. Tree trimming or vegetation management plan.

(1) Schedule. The plan shall contain a schedule for periodic tree trimming or other measures to control vegetation growth under or along the various units of the utility’s electric plant. The period between inspections shall be based on accepted good practice in the industry and may vary depending on the nature of the vegetation at different locations, not exceeding five years between inspections.

(2) Procedures. The plan shall include written procedures for vegetation management. The procedures shall promote the safety and reliability of electric lines and facilities. Where tree trimming is employed, practices shall be adopted that will protect the health of the tree and reduce undesirable regrowth patterns.

d. Pole inspections. Pole inspections shall periodically include an examination of the poles that includes tests in addition to visual inspection in appropriate circumstances. These additional tests may include sounding, boring, groundline exposure, and, if applicable, pole treatment.

25.3(4) Records. Each utility shall keep sufficient records to demonstrate compliance with its inspection and vegetation management plans. For each inspection unit, the records of line and substation inspections and pole inspections shall include the inspection date(s), the findings of the inspection, and the disposition or scheduling of repairs or maintenance found necessary during the inspection. For each inspection unit, the records of vegetation management shall include the date(s) during which the work was conducted. The records shall be kept until two years after the next periodic inspection or vegetation management action in the inspection and maintenance plan cycle is completed or until all necessary repairs and maintenance are completed, whichever is longer.

25.3(5) Guidelines. Applicable portions of Rural Utilities Service (RUS) Bulletins 1730-1, 1730B-121, and 1724E-300 and “The Lineman’s and Cableman’s Handbook” are suggested as guidelines for the development and implementation of an inspection plan. ANSI A300 (Part 1)-2008 (R2014), “Pruning,” and Section 35 of “The Lineman’s and Cableman’s Handbook” are suggested as guides for tree trimming practices.

199—25.4(476,478) Correction of problems found during inspections and pole attachment procedures.

25.4(1) Corrective action shall be taken within a reasonable period of time on all potentially hazardous conditions, instances of safety code noncompliance, maintenance needs, potential threats to safety and reliability, or other concerns identified during inspections. Hazardous conditions shall be corrected promptly. In addition to the general requirements stated in this subrule, pole attachments shall comply with the specific requirements and procedures established in subrule 25.4(2).

25.4(2) To ensure the safety of pole attachments to poles owned by utilities in Iowa, this subrule establishes requirements for attaching electric lines, communications lines, cable systems, video service lines, data lines, wireless antennae and other wireless facilities, or similar lines and facilities that are attached to the excess space on poles owned by utilities.

a. Definitions. The following definitions apply to this rule.

“*Pole*” means any pole owned by a utility that carries electric lines, communications lines, cable systems, video service lines, data service lines, wireless antennae or other wireless facilities, or similar lines and facilities.

“*Pole attachment*” means any electric line, communication circuit, cable system, video service line, data service line, antenna and other associated wireless equipment, or similar lines and facilities attached to a pole or other supporting structure subject to the safety jurisdiction of the board pursuant to the Iowa electrical safety code, 199—25.2(476,476A,478).

“*Pole occupant*” means any electric utility, telecommunications carrier, cable system provider, video service provider, data service provider, wireless service provider, or similar person or entity that constructs, operates, or maintains pole attachments as defined in this chapter.

“*Pole owner*” means a utility that owns poles subject to the safety jurisdiction of the board pursuant to the Iowa electrical safety code, 199—25.2(476,476A,478).

b. Compliance with Iowa electrical safety code. Pole attachments to poles shall be constructed, installed, operated, and maintained in compliance with the Iowa electrical safety code, 199—25.2(476,476A,478), and the requirements and procedures established in this subrule.

c. Requests for access to poles; exceptions for service drops and overlashing.

(1) A pole owner shall provide nondiscriminatory access to poles it owns, to the extent required by federal or state law. Requests for access to poles by an electric utility, telecommunications carrier, cable system operator, video service provider, data service provider, wireless service provider, or similar person or entity shall be made in writing or by any method as may be agreed upon by the pole owner and the person or entity requesting access to the pole. If access is denied, the pole owner shall explain in detail the specific reason for denial and how the denial relates to reasons of lack of capacity, safety, reliability, or engineering standards.

(2) Service drops are not subject to the notice and approval requirements in subparagraph 25.4(2) “c”(1). Instead, pole occupants shall provide notice to pole owners within 30 days of the installation of a new service drop, unless the pole occupant and pole owner have negotiated a different notification requirement.

(3) Overlashing of existing lines is not subject to the notice and approval requirements in subparagraph 25.4(2) “c”(1). Pole occupants shall provide notice to pole owners of proposed overlashing at least 7 days prior to installation of the overlashing, unless the pole occupant and pole owner have negotiated a different notification requirement.

d. Notification of violation. A pole owner shall notify in writing a pole occupant of an alleged violation of the Iowa electrical safety code by a pole attachment owned by the pole occupant or may provide notice by another method as may be agreed upon by the parties to a pole attachment agreement. The notice shall include the address and pole location where the alleged violation occurred, a description of the alleged violation, and suggested corrective action.

e. Corrective action.

(1) Upon receipt of notification from a pole owner that the pole occupant has one or more pole attachments in violation of the Iowa electrical safety code, the pole occupant shall respond to the pole owner within 60 days in writing or by another method as may be agreed upon by the pole occupant and the pole owner. The response provides a plan for corrective action, state that the violation has been corrected, indicate that the pole attachment is owned by a different pole occupant, or indicate that the pole occupant

disputes that a violation has occurred. The violation shall be corrected within 180 days of the date notification is received unless good cause is shown for any delay in taking corrective action. A disagreement that a violation has occurred, a claim that correction is not possible within the specific time frames due to events beyond the control of the pole occupant, or a claim that a different pole occupant is responsible for the alleged violation will be considered good cause to extend the time for taking corrective action. The pole occupant and pole owner may also agree to an extension of the time for taking corrective action. The pole owner and pole occupant shall cooperate in determining the cause of a violation and an efficient and cost-effective method of correcting a violation.

(2) If the violation could reasonably be expected to endanger life or property, the pole occupant shall take the necessary action to correct, disconnect, or isolate the problem immediately upon notification. If immediate corrective action is not taken by the pole occupant for a violation that could reasonably be expected to endanger life or property, the pole owner may take the necessary corrective action and the pole occupant shall reimburse the pole owner for the actual cost of any corrective measures. If the pole owner is later determined to have caused the violation and the pole occupant has taken corrective action, the pole owner shall reimburse the pole occupant for the actual cost of the corrective action. Disputes concerning the ownership of the pole attachment should be resolved as quickly as possible.

f. Negotiated resolution of disputes. Parties to disputes over alleged violations of the Iowa electrical safety code, the cause of a violation, the pole occupant responsible for the violation, the cost-effective corrective action, or any other dispute regarding the provisions of subrule 25.4(2) shall attempt to resolve disputes through good-faith negotiations. Parties may file an informal complaint with the board pursuant to 199—Chapter 6 as part of negotiations.

g. Complaints. Complaints concerning the requirements or procedures established in subrule 25.4(2), including alleged violations of the Iowa electrical safety code, may be filed with the board by pole owners or pole occupants pursuant to the complaint procedures in 199—Chapter 6.

h. Civil penalties. Persons found to have violated the provisions of subrule 25.4(2) may be subject to civil penalties pursuant to Iowa Code section 476.51 or to other action by the board.

199—25.5(476,478) Accident reports. This rule applies to all owners or operators of electrical facilities subject to the safety jurisdiction of the board under this chapter.

25.5(1) All owners and operators of electrical facilities subject to the safety jurisdiction of the board shall provide the board with a 24-hour contact number where the board can obtain immediate access to a person knowledgeable about any incidents involving contact with energized electrical facilities.

25.5(2) All owners and operators of electrical facilities subject to the safety jurisdiction of the board shall notify the board of any incident or accident involving contact with energized electrical facilities that meets the following conditions:

a. An employee or other person coming in contact with energized electrical facilities which results in death or personal injury necessitating in-patient hospitalization.

b. Estimated property damage of \$15,000 or more to the property of the utility and others.

c. Any other incident considered significant by the company.

d. Any incident leading to an electrical line being taken out of service.

25.5(3) The board shall be notified immediately, or as soon as practical thereafter, by email to the board duty officer at dutyofficer@iub.iowa.gov or, if email service is not available, by calling (515)745-2332. The person contacting the board shall leave a telephone number of a person who can provide the following information:

a. The name of the company, the name and telephone number of the person making the report, and the name and telephone number of a contact person knowledgeable about the incident.

b. The location of the incident.

c. The time of the incident.

d. The number of deaths or personal injuries requiring in-patient hospitalization and the extent of those injuries.

e. Initial estimate of damages.

f. A summary of the significant information available regarding the probable cause of the incident and extent of damages.

g. Any oral or written report made to a federal agency, the agency receiving the report, and the name and telephone number of the person who made or prepared the report.

25.5(4) Written incident reports. Within 30 days of the date of the incident, the owner or operator shall file a written report with the board. The report includes the information required for notice in subrule 25.5(3), the probable cause as determined by the company, the number and cause of any deaths or personal injuries requiring in-patient hospitalization, and a detailed description of property damage and the amount of monetary damages. If significant additional information becomes available at a later date, a supplemental report shall be filed. Duplicate copies of any written reports filed with or submitted to a federal agency concerning the incident shall also be provided to the board.

ATTACHMENT A

These rules are intended to implement Iowa Code chapter 478.

****For rules being re-promulgated with changes, you may attach a document with suggested changes.***

METRICS

Total number of rules repealed:	0
Proposed word count reduction after repeal and/or re-promulgation	18
Proposed number of restrictive terms eliminated after repeal and/or re-promulgation	14

ARE THERE ANY STATUTORY CHANGES YOU WOULD RECOMMEND INCLUDING CODIFYING ANY RULES?

There are no recommended statutory changes at this time.

Regulatory Analysis Template

TEXT BOXES WILL EXPAND AS YOU TYPE

Agency Name Iowa Utilities BoardRule # 199 IAC Chapter 25Iowa Code Section Authorizing Rule Iowa Code §§ 476.1, 476.1B, 476.2, 76A.12, 478.19, 478.20State or Federal Law(s) Implemented by the Rule Iowa Code §§ 476.1, 476.1B, 476.2, 76A.12, 478.19, 478.20**Public Hearing**

A public hearing at which persons may present their views orally or in writing will be held as follows:

Date/Time: 04/23/2024 2:00 PMLocation: Board Hearing Room, 1375 E. Court Ave., Des Moines, Iowa 50319

Any interested person may submit written comments concerning this regulatory analysis. Written comments in response to this regulatory analysis must be received by the Department no later than 4:30 p.m. on the date of the public hearing. Comments should be directed to:

Contact Name

IT Support

Address

1375 E. Court Avenue, Des Moines, Iowa 50319

Email and/or phone number

515-725-7300 / ITsupport@iub.iowa.gov**Purpose and summary of proposed rule:**

Chapter 25 promotes safe and adequate service to the public, to provide standards for uniform and reasonable practices by utilities, and to establish a basis for determining the reasonableness of such demands as may be made by the public upon the utilities.

Analysis of Impact of Proposed Rule

1. Persons affected by the proposed rule

- Classes of persons that will bear the costs of the proposed rule:

Because the proposed rule provides standards that are necessary for safe and adequate service and standards for practices of utilities the costs are paid for by public utilities.

ATTACHMENT B

Regulatory Analysis Template

- Classes of persons that will benefit from the proposed rule:

All persons benefit from the improved safety of the electrical lines and the service that is provided through adequate and proper methods of working on the electrical lines.

2. Impact of the proposed rule, economic or otherwise, including the nature and amount of all the different kinds of costs that would be incurred

- Quantitative description of impact:

There are some additional costs to the utilities as they must meet these safety standards when working on electrical lines and must report certain incidents to the Utilities Board.

- Qualitative description of impact:

These safety and service standards along with the reporting requirements are helping to ensure adequate service of electricity throughout Iowa while keeping people safe with the prevalence of electrical lines throughout the state. Additionally, the reporting requirements help the Utilities Board keep track and review incidents that occur to help prevent future incidents.

3. Costs to the state

- Implementation and enforcement costs borne by the agency or any other agency:

There are no additional costs to any agency other than the normal costs of operation for inspections that are part of the Utilities Board review procedures.

- Anticipated effect on state revenues:

There is no anticipated effect on state revenues.

4. Comparison of the costs and benefits of the proposed rule to the costs and benefits of inaction

Having specific standards that are approved by the industry as a whole helps Iowa have a safer and more easily understood electrical system. Having electric and communication utilities following these rules provides standards for how to behave, while inaction would leave these utilities to inspect and determine what level of safety is necessary depending on the specific location. This could lead to inconsistent standards throughout the state in regard to different utilities and geographically as the company could have different staff determining what methods to use.

5. Determination if less costly methods or less intrusive methods exist for achieving the purpose of the proposed rule

The provision of minimum standards for the restoration along with the option for individualized plans between landowners and the utilities is the least intrusive method as it still allows individual decision when desired while the minimum standards provide the least costly method of meeting the desired goal of the rule.

Regulatory Analysis Template

6. Alternative methods considered by the agency

- Description of any alternative methods that were seriously considered by the agency:

The alternative method considered by the Iowa Utilities Board was to fully adopt and accept the National Electrical Safety Code rules as written.

- Reasons why they were rejected in favor of the proposed rule:

The National Electrical Safety Code is a general purpose code designed to cover basic provisions for the safety relating to electric transmission. More specific rules were needed in specific areas to ensure Iowans are properly protected from potential hazards and some additional rules were required in regards to the more specific issues with electrical transmission in Iowa.

Small Business Impact

If the rule will have a substantial impact on small business, include a discussion of whether it would be feasible and practicable to do any of the following to reduce the impact of the rule on small business:

- Establish less stringent compliance or reporting requirements in the rule for small business.
- Establish less stringent schedules or deadlines in the rule for compliance or reporting requirements for small business.
- Consolidate or simplify the rule’s compliance or reporting requirements for small business.
- Establish performance standards to replace design or operational standards in the rule for small business.
- Exempt small business from any or all requirements of the rule.

If legal and feasible, how does the rule use a method discussed above to reduce the substantial impact on small business?

There is no anticipated small business impact.

Text of Proposed Rule:

CHAPTER 25
IOWA ELECTRICAL SAFETY CODE

199—25.1(476,476A,478) General information.
 25.1(1) *Authority.* The standards relating to electric and communication facilities in this chapter are prescribed by the Iowa utilities board pursuant to Iowa Code sections 476.1, 476.1B, 476.2, 476A.12, 478.19, and 478.20.

Regulatory Analysis Template

25.1(2) Purpose. The purpose of this chapter is to promote safe and adequate service to the public, to provide standards for uniform and reasonable practices by utilities, and to establish a basis for determining the reasonableness of such demands as may be made by the public upon the utilities. The rules apply to electric and communication utility facilities located in the state of Iowa and supersede all conflicting rules of any such utility. In no way does this rule relieve any utility from any of its duties under the laws of this state.

25.1(3) Definition of utility. For the purpose of this chapter, a utility is any owner or operator of electric or communications facilities subject to the safety jurisdiction of the board.

199—25.2(476,476A,478) Iowa electrical safety code defined. The standard minimum requirements for the installation and maintenance of electric substations, generating stations, and overhead and underground electric supply or communications lines adopted below, collectively constitute the “Iowa Electrical Safety Code.”

25.2(1) National Electrical Safety Code. The American National Standards Institute (ANSI) C2-2023, “National Electrical Safety Code” (NESC), including issued Correction Sheets, is adopted as part of the Iowa electrical safety code, except Part 4, “Rules for Operation of Electric Supply and Communications Lines and Equipment,” which is not adopted by the board.

25.2(2) Modifications and qualifications to the NESC. The standards set forth in the NESC are modified or qualified as follows:

a. Introduction to the National Electrical Safety Code. NESC 013A2 is modified to read as follows: “Types of construction and methods of installation other than those specified in the rules may be used experimentally to obtain information, if done where:

1. Qualified supervision is provided,
2. Equivalent safety is provided,
3. On joint-use facilities, all joint users are notified in a timely manner, and
4. Prior approval is obtained from the Iowa utilities board.”

b. Minimum clearances.

(1) In any instance where minimum clearances are provided in Iowa Code chapter 478 which are greater than otherwise required by these rules, the statutory clearances prevail.

(2) The following clearances apply to all lines regardless of date of construction: NESC 232, vertical clearances for “Water areas not suitable for sailboating or where sailboating is prohibited,” “Water areas suitable for sailboating . . .” and “Established boat ramps and associated rigging areas . . .”; and NESC 234E, “Clearance of Wires, Conductors, Cables or Unguarded Rigid Live Parts Installed Over or Near Swimming Areas With No Wind Displacement.”

(3) Table 232-1, Footnote 21, is changed to read: “Where the U.S. Army Corps of Engineers or the state, or a surrogate thereof, issues a crossing permit, the clearances of that permit govern if equal to or greater than those required herein. Where the permit clearances are less than those required herein and water surface use restrictions on vessel heights are enforced, the permit clearances may be used.”

(4) Except for clearances near grain bins, for measurements made under field conditions, the board will consider compliance with the overhead vertical line clearance requirements of Subsection 232 and Table 232-1 of the 1987 NESC indicative of compliance with the 1990 through 2017 editions of the NESC. (For an explanation of the differences between 1987 and subsequent code edition clearances, see Appendix A of the 1990 through 2017 editions of the NESC.)

c. Reserved.

d. Rule 217C1 is changed to read:

“The ground end of at least one guy per anchor shall be provided with a substantial marker not less than eight feet long. The guy marker shall be of a conspicuous color such as yellow, orange, or red. Noncomplying guy markers shall be replaced as part of the utility’s inspection and maintenance plan.”

e. There is added to Rule 381G:

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(3) Pad-mounted and other aboveground equipment not located within a fenced or otherwise protected area shall have affixed to its outside access door or cover a prominent “Warning” or other appropriate sign of highly visible color, warning of hazardous voltage and including the name of the utility. This rule applies to all signs placed or replaced after June 18, 2003.

f. There is added to the first paragraph of Rule 110A1, after the sentence stating, “Entrances not under observation of an authorized attendant shall be kept locked,” the following sentences:

Entrances may be unlocked while authorized personnel are inside. However, if unlocked, the entrance gate must be fully closed, and latched or fastened if there is a gate-latching mechanism.

g. Lines crossing railroad tracks will comply with the additional requirements of 199 IAC 42.6(476), “Engineering standards for electric and communications lines.”

25.2(3) *Grain bins.*

a. Electric utilities shall conduct or participate in annual public information campaigns to inform farmers, farm lenders, grain bin merchants, and city and county zoning officials of the hazards of and standards for construction of grain bins near power lines.

b. An electric utility may refuse to provide electric service to any grain bin built near an existing electric line which does not provide the clearances required by the American National Standards Institute (ANSI) C2-2023 “National Electrical Safety Code,” Rule 234F. This paragraph “*b*” applies only to grain bins loaded by portable augers, conveyors or elevators and built after September 9, 1992, or to grain bins loaded by permanently installed augers, conveyors, or elevator systems installed after December 24, 1997.

25.2(4) *General rules.*

a. *Joint-use construction.* Where it is mutually agreeable between an electric utility and a communication or cable television company, communication circuits or cables may be buried in the same trench or attached to the same supporting structure, provided this joint use is permitted by, and is constructed in compliance with, the Iowa electrical safety code.

b. *Lines.* In order to limit the residual currents and voltages arising from line unbalances, the resistance, inductance, capacitance and leakage conductance of each phase conductor of an electric supply circuit in any section shall be as nearly equal as practical to the corresponding quantities in the other phase conductors in the same section.

The ampacity of a multigrounded neutral conductor of an electric supply circuit shall be adequate for the load that it carries. The ampacity of a multigrounded neutral conductor of an electric supply circuit shall not be less than 60 percent of that of any phase conductor with which it is associated, except for three phase four wire wye circuits where it shall have ampacity not less than 50 percent of that of any associated phase conductor. In no case shall the resistance of a multigrounded neutral conductor exceed 3.6 ohms per mile. (This does not modify the mechanical strength requirements for conductors.) A multigrounded conductor installed and utilized primarily for lightning shielding of the associated phase conductors need not comply with the above percentage ampacity requirements for neutral conductors.

Where the neutral conductor of the electric supply circuit is not multigrounded or in an inductive exposure involving communication or signal circuits and equipment where the controlling frequencies are 360 Hertz or lower, any neutral conductor shall have the same ampacity as the phase conductors with which it is associated.

25.2(5) *Other references adopted.*

a. The “National Electrical Code,” ANSI/NFPA 70-2023, is adopted as a standard of accepted good practice for customer-owned electrical facilities beyond the utility point of delivery, except for installations subject to the provisions of the state fire marshal standards in 661—504.1(103).

b. “The Lineman’s and Cableman’s Handbook,” Fourteenth Edition; Shoemaker, Thomas M. and Mack, James E.; New York, McGraw-Hill Book Co., is adopted as a recommended guideline to

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implement the “National Electrical Safety Code” or “National Electrical Code,” and for developing the inspection and maintenance plans required by 199—25.3(476,478).

199—25.3(476,478) Inspection and maintenance plans.

25.3(1) *Filing of plan.* Each electric utility shall adopt and file with the board a written plan for inspecting and maintaining its electric supply lines and substations (excluding generating stations) in order to determine the necessity for replacement, maintenance, and repair, and for tree trimming or other vegetation management. If the plan is amended or altered, revised copies of the appropriate plan pages shall be filed.

25.3(2) *Annual report.* Each investor-owned, rate-regulated utility shall include as part of its annual report to the board, as required by 199—Chapter 23, certification of compliance with each area of the inspection and maintenance plan required by subrule 25.3(1) or a detailed statement on areas of noncompliance.

25.3(3) *Contents of plan.* The inspection plan includes the following elements:

a. General. A listing of all counties or parts of counties in which the utility has electric supply lines in Iowa. If the utility has district or regional offices responsible for implementation of a portion of the plan, the addresses of those offices and a description of the territory for which they are responsible shall also be included.

b. Inspection of lines, poles, and substations.

(1) Inspection schedules. The plan shall contain a schedule for the periodic inspection of the various units of the utility’s electric plant. The period between inspections shall be based on accepted good practice in the industry, but for lines and substations shall not exceed ten years for any given line or piece of equipment. Lines operated at 34.5 kV or above shall be inspected at least annually for damage and to determine the condition of the overhead line insulators.

(2) Inspection coverage. The plan shall provide for the inspection of all supply line and substation units within the adopted inspection periods and shall include a complete listing of all categories of items to be checked during an inspection.

(3) Conduct of inspections. Inspections shall be conducted in a manner conducive to the identification of safety, maintenance, and reliability concerns or needs.

(4) Instructions to inspectors. Copies of instructions or guide materials used by utility inspectors in determining whether a facility is in acceptable condition or in need of corrective action or further investigation.

c. Tree trimming or vegetation management plan.

(1) Schedule. The plan shall contain a schedule for periodic tree trimming or other measures to control vegetation growth under or along the various units of the utility’s electric plant. The period between inspections shall be based on accepted good practice in the industry and may vary depending on the nature of the vegetation at different locations, not exceeding five years between inspections.

(2) Procedures. The plan shall include written procedures for vegetation management. The procedures shall promote the safety and reliability of electric lines and facilities. Where tree trimming is employed, practices shall be adopted that will protect the health of the tree and reduce undesirable regrowth patterns.

d. Pole inspections. Pole inspections shall periodically include an examination of the poles that includes tests in addition to visual inspection in appropriate circumstances. These additional tests may include sounding, boring, groundline exposure, and, if applicable, pole treatment.

25.3(4) *Records.* Each utility shall keep sufficient records to demonstrate compliance with its inspection and vegetation management plans. For each inspection unit, the records of line and substation inspections and pole inspections shall include the inspection date(s), the findings of the inspection, and the disposition or scheduling of repairs or maintenance found necessary during the inspection. For each inspection unit, the records of vegetation management shall include the date(s) during which the work

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was conducted. The records shall be kept until two years after the next periodic inspection or vegetation management action in the inspection and maintenance plan cycle is completed or until all necessary repairs and maintenance are completed, whichever is longer.

25.3(5) Guidelines. Applicable portions of Rural Utilities Service (RUS) Bulletins 1730-1, 1730B-121, and 1724E-300 and “The Lineman’s and Cableman’s Handbook” are suggested as guidelines for the development and implementation of an inspection plan. ANSI A300 (Part 1)-2008 (R2014), “Pruning,” and Section 35 of “The Lineman’s and Cableman’s Handbook” are suggested as guides for tree trimming practices.

199—25.4(476,478) Correction of problems found during inspections and pole attachment procedures.

25.4(1) Corrective action shall be taken within a reasonable period of time on all potentially hazardous conditions, instances of safety code noncompliance, maintenance needs, potential threats to safety and reliability, or other concerns identified during inspections. Hazardous conditions shall be corrected promptly. In addition to the general requirements stated in this subrule, pole attachments shall comply with the specific requirements and procedures established in subrule 25.4(2).

25.4(2) To ensure the safety of pole attachments to poles owned by utilities in Iowa, this subrule establishes requirements for attaching electric lines, communications lines, cable systems, video service lines, data lines, wireless antennae and other wireless facilities, or similar lines and facilities that are attached to the excess space on poles owned by utilities.

a. Definitions. The following definitions apply to this rule.

“*Pole*” means any pole owned by a utility that carries electric lines, communications lines, cable systems, video service lines, data service lines, wireless antennae or other wireless facilities, or similar lines and facilities.

“*Pole attachment*” means any electric line, communication circuit, cable system, video service line, data service line, antenna and other associated wireless equipment, or similar lines and facilities attached to a pole or other supporting structure subject to the safety jurisdiction of the board pursuant to the Iowa electrical safety code, 199—25.2(476,476A,478).

“*Pole occupant*” means any electric utility, telecommunications carrier, cable system provider, video service provider, data service provider, wireless service provider, or similar person or entity that constructs, operates, or maintains pole attachments as defined in this chapter.

“*Pole owner*” means a utility that owns poles subject to the safety jurisdiction of the board pursuant to the Iowa electrical safety code, 199—25.2(476,476A,478).

b. Compliance with Iowa electrical safety code. Pole attachments to poles shall be constructed, installed, operated, and maintained in compliance with the Iowa electrical safety code, 199—25.2(476,476A,478), and the requirements and procedures established in this subrule.

c. Requests for access to poles; exceptions for service drops and overlashing.

(1) A pole owner shall provide nondiscriminatory access to poles it owns, to the extent required by federal or state law. Requests for access to poles by an electric utility, telecommunications carrier, cable system operator, video service provider, data service provider, wireless service provider, or similar person or entity shall be made in writing or by any method as may be agreed upon by the pole owner and the person or entity requesting access to the pole. If access is denied, the pole owner shall explain in detail the specific reason for denial and how the denial relates to reasons of lack of capacity, safety, reliability, or engineering standards.

(2) Service drops are not subject to the notice and approval requirements in subparagraph 25.4(2)“c”(1). Instead, pole occupants shall provide notice to pole owners within 30 days of the installation of a new service drop, unless the pole occupant and pole owner have negotiated a different notification requirement.

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(3) Overlashing of existing lines is not subject to the notice and approval requirements in subparagraph 25.4(2) “c”(1). Pole occupants shall provide notice to pole owners of proposed overlashing at least 7 days prior to installation of the overlashing, unless the pole occupant and pole owner have negotiated a different notification requirement.

d. Notification of violation. A pole owner shall notify in writing a pole occupant of an alleged violation of the Iowa electrical safety code by a pole attachment owned by the pole occupant or may provide notice by another method as may be agreed upon by the parties to a pole attachment agreement. The notice shall include the address and pole location where the alleged violation occurred, a description of the alleged violation, and suggested corrective action.

e. Corrective action.

(1) Upon receipt of notification from a pole owner that the pole occupant has one or more pole attachments in violation of the Iowa electrical safety code, the pole occupant shall respond to the pole owner within 60 days in writing or by another method as may be agreed upon by the pole occupant and the pole owner. The response provides a plan for corrective action, state that the violation has been corrected, indicate that the pole attachment is owned by a different pole occupant, or indicate that the pole occupant disputes that a violation has occurred. The violation shall be corrected within 180 days of the date notification is received unless good cause is shown for any delay in taking corrective action. A disagreement that a violation has occurred, a claim that correction is not possible within the specific time frames due to events beyond the control of the pole occupant, or a claim that a different pole occupant is responsible for the alleged violation will be considered good cause to extend the time for taking corrective action. The pole occupant and pole owner may also agree to an extension of the time for taking corrective action. The pole owner and pole occupant shall cooperate in determining the cause of a violation and an efficient and cost-effective method of correcting a violation.

(2) If the violation could reasonably be expected to endanger life or property, the pole occupant shall take the necessary action to correct, disconnect, or isolate the problem immediately upon notification. If immediate corrective action is not taken by the pole occupant for a violation that could reasonably be expected to endanger life or property, the pole owner may take the necessary corrective action and the pole occupant shall reimburse the pole owner for the actual cost of any corrective measures. If the pole owner is later determined to have caused the violation and the pole occupant has taken corrective action, the pole owner shall reimburse the pole occupant for the actual cost of the corrective action. Disputes concerning the ownership of the pole attachment should be resolved as quickly as possible.

f. Negotiated resolution of disputes. Parties to disputes over alleged violations of the Iowa electrical safety code, the cause of a violation, the pole occupant responsible for the violation, the cost-effective corrective action, or any other dispute regarding the provisions of subrule 25.4(2) shall attempt to resolve disputes through good-faith negotiations. Parties may file an informal complaint with the board pursuant to 199—Chapter 6 as part of negotiations.

g. Complaints. Complaints concerning the requirements or procedures established in subrule 25.4(2), including alleged violations of the Iowa electrical safety code, may be filed with the board by pole owners or pole occupants pursuant to the complaint procedures in 199—Chapter 6.

h. Civil penalties. Persons found to have violated the provisions of subrule 25.4(2) may be subject to civil penalties pursuant to Iowa Code section 476.51 or to other action by the board.

199—25.5(476,478) Accident reports. This rule applies to all owners or operators of electrical facilities subject to the safety jurisdiction of the board under this chapter.

25.5(1) All owners and operators of electrical facilities subject to the safety jurisdiction of the board shall provide the board with a 24-hour contact number where the board can obtain immediate access to a person knowledgeable about any incidents involving contact with energized electrical facilities.

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25.5(2) All owners and operators of electrical facilities subject to the safety jurisdiction of the board shall notify the board of any incident or accident involving contact with energized electrical facilities that meets the following conditions:

- a.* An employee or other person coming in contact with energized electrical facilities which results in death or personal injury necessitating in-patient hospitalization.
- b.* Estimated property damage of \$15,000 or more to the property of the utility and others.
- c.* Any other incident considered significant by the company.
- d.* Any incident leading to an electrical line being taken out of service.

25.5(3) The board shall be notified immediately, or as soon as practical thereafter, by email to the board duty officer at dutyofficer@iub.iowa.gov or, if email service is not available, by calling (515)745-2332. The person contacting the board shall leave a telephone number of a person who can provide the following information:

- a.* The name of the company, the name and telephone number of the person making the report, and the name and telephone number of a contact person knowledgeable about the incident.
- b.* The location of the incident.
- c.* The time of the incident.
- d.* The number of deaths or personal injuries requiring in-patient hospitalization and the extent of those injuries.
- e.* Initial estimate of damages.
- f.* A summary of the significant information available regarding the probable cause of the incident and extent of damages.
- g.* Any oral or written report made to a federal agency, the agency receiving the report, and the name and telephone number of the person who made or prepared the report.

25.5(4) Written incident reports. Within 30 days of the date of the incident, the owner or operator shall file a written report with the board. The report includes the information required for notice in subrule 25.5(3), the probable cause as determined by the company, the number and cause of any deaths or personal injuries requiring in-patient hospitalization, and a detailed description of property damage and the amount of monetary damages. If significant additional information becomes available at a later date, a supplemental report shall be filed. Duplicate copies of any written reports filed with or submitted to a federal agency concerning the incident shall also be provided to the board.

These rules are intended to implement Iowa Code chapter 478.

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CHAPTER 25
IOWA ELECTRICAL SAFETY CODE**199—25.1(476,476A,478) General information.**

25.1(1) Authority. The standards relating to electric and communication facilities in this chapter are prescribed by the Iowa utilities board pursuant to Iowa Code sections 476.1, 476.1B, 476.2, 476A.12, 478.19, and 478.20.

25.1(2) Purpose. The purpose of this chapter is to promote safe and adequate service to the public, to provide standards for uniform and reasonable practices by utilities, and to establish a basis for determining the reasonableness of such demands as may be made by the public upon the utilities. The rules apply to electric and communication utility facilities located in the state of Iowa and supersede all conflicting rules of any such utility. In no way does this rule relieve any utility from any of its duties under the laws of this state.

25.1(3) Definition of utility. For the purpose of this chapter, a utility is any owner or operator of electric or communications facilities subject to the safety jurisdiction of the board.

199—25.2(476,476A,478) Iowa electrical safety code defined. The standard minimum requirements for the installation and maintenance of electric substations, generating stations, and overhead and underground electric supply or communications lines adopted below, collectively constitute the “Iowa Electrical Safety Code.”

25.2(1) National Electrical Safety Code. The American National Standards Institute (ANSI) C2-2023, “National Electrical Safety Code” (NESC), including issued Correction Sheets, is adopted as part of the Iowa electrical safety code, except Part 4, “Rules for Operation of Electric Supply and Communications Lines and Equipment,” which is not adopted by the board.

25.2(2) Modifications and qualifications to the NESC. The standards set forth in the NESC are modified or qualified as follows:

a. Introduction to the National Electrical Safety Code. NESC 013A2 is modified to read as follows: “Types of construction and methods of installation other than those specified in the rules may be used experimentally to obtain information, if done where:

1. Qualified supervision is provided,
2. Equivalent safety is provided,
3. On joint-use facilities, all joint users are notified in a timely manner, and
4. Prior approval is obtained from the Iowa utilities board.”

b. Minimum clearances.

(1) In any instance where minimum clearances are provided in Iowa Code chapter 478 which are greater than otherwise required by these rules, the statutory clearances prevail.

(2) The following clearances apply to all lines regardless of date of construction: NESC 232, vertical clearances for “Water areas not suitable for sailboating or where sailboating is prohibited,” “Water areas suitable for sailboating . . .,” and “Established boat ramps and associated rigging areas . . .”; and NESC 234E, “Clearance of Wires, Conductors, Cables or Unguarded Rigid Live Parts Installed Over or Near Swimming Areas With No Wind Displacement.”

(3) Table 232-1, Footnote 21, is changed to read: “Where the U.S. Army Corps of Engineers or the state, or a surrogate thereof, issues a crossing permit, the clearances of that permit govern if equal to or greater than those required herein. Where the permit clearances are less than those required herein and water surface use restrictions on vessel heights are enforced, the permit clearances may be used.”

(4) Except for clearances near grain bins, for measurements made under field conditions, the

board will consider compliance with the overhead vertical line clearance requirements of Subsection 232 and Table 232-1 of the 1987 NESC indicative of compliance with the 1990 through 2017 editions of the NESC. (For an explanation of the differences between 1987 and subsequent code edition clearances, see Appendix A of the 1990 through 2017 editions of the NESC.)

c. Reserved.

d. Rule 217C1 is changed to read:

“The ground end of at least one guy per anchor shall be provided with a substantial marker not less than eight feet long. The guy marker shall be of a conspicuous color such as yellow, orange, or red. Noncomplying guy markers shall be replaced as part of the utility’s inspection and maintenance plan.”

e. There is added to Rule 381G:

(3) Pad-mounted and other aboveground equipment not located within a fenced or otherwise protected area shall have affixed to its outside access door or cover a prominent “Warning” or other appropriate sign of highly visible color, warning of hazardous voltage and including the name of the utility. This rule applies to all signs placed or replaced after June 18, 2003.

f. There is added to the first paragraph of Rule 110A1, after the sentence stating, “Entrances not under observation of an authorized attendant shall be kept locked,” the following sentences:

Entrances may be unlocked while authorized personnel are inside. However, if unlocked, the entrance gate must be fully closed, and latched or fastened if there is a gate-latching mechanism.

g. Lines crossing railroad tracks will comply with the additional requirements of 199 IAC 42.6(476), “Engineering standards for electric and communications lines.”

25.2(3) Grain bins.

a. Electric utilities shall conduct or participate in annual public information campaigns to inform farmers, farm lenders, grain bin merchants, and city and county zoning officials of the hazards of and standards for construction of grain bins near power lines.

b. An electric utility may refuse to provide electric service to any grain bin built near an existing electric line which does not provide the clearances required by the American National Standards Institute (ANSI) C2-2023 “National Electrical Safety Code,” Rule 234F. This paragraph “b” applies only to grain bins loaded by portable augers, conveyors or elevators and built after September 9, 1992, or to grain bins loaded by permanently installed augers, conveyors, or elevator systems installed after December 24, 1997.

25.2(4) General rules.

a. *Joint-use construction.* Where it is mutually agreeable between an electric utility and a communication or cable television company, communication circuits or cables may be buried in the same trench or attached to the same supporting structure, provided this joint use is permitted by, and is constructed in compliance with, the Iowa electrical safety code.

b. *Lines.* In order to limit the residual currents and voltages arising from line unbalances, the resistance, inductance, capacitance and leakage conductance of each phase conductor of an electric supply circuit in any section shall be as nearly equal as practical to the corresponding quantities in the other phase conductors in the same section.

The ampacity of a multigrounded neutral conductor of an electric supply circuit shall be adequate for the load that it carries. The ampacity of a multigrounded neutral conductor of an electric supply circuit shall not be less than 60 percent of that of any phase conductor with which it is associated, except for three phase four wire wye circuits where it shall have ampacity not less than 50 percent of that of any associated phase conductor. In no case shall the resistance of a multigrounded neutral conductor exceed 3.6 ohms per mile. (This does not modify the mechanical strength requirements for conductors.) A multigrounded conductor installed and utilized primarily

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for lightning shielding of the associated phase conductors need not comply with the above percentage ampacity requirements for neutral conductors.

Where the neutral conductor of the electric supply circuit is not multigrounded or in an inductive exposure involving communication or signal circuits and equipment where the controlling frequencies are 360 Hertz or lower, any neutral conductor shall have the same ampacity as the phase conductors with which it is associated.

25.2(5) Other references adopted.

a. The “National Electrical Code,” ANSI/NFPA 70-2023, is adopted as a standard of accepted good practice for customer-owned electrical facilities beyond the utility point of delivery, except for installations subject to the provisions of the state fire marshal standards in 661—504.1(103).

b. “The Lineman’s and Cableman’s Handbook,” Fourteenth Edition; Shoemaker, Thomas M. and Mack, James E.; New York, McGraw-Hill Book Co., is adopted as a recommended guideline to implement the “National Electrical Safety Code” or “National Electrical Code,” and for developing the inspection and maintenance plans required by 199—25.3(476,478).

199—25.3(476,478) Inspection and maintenance plans.

25.3(1) Filing of plan. Each electric utility shall adopt and file with the board a written plan for inspecting and maintaining its electric supply lines and substations (excluding generating stations) in order to determine the necessity for replacement, maintenance, and repair, and for tree trimming or other vegetation management. If the plan is amended or altered, revised copies of the appropriate plan pages shall be filed.

25.3(2) Annual report. Each investor-owned, rate-regulated utility shall include as part of its annual report to the board, as required by 199—Chapter 23, certification of compliance with each area of the inspection and maintenance plan required by subrule 25.3(1) or a detailed statement on areas of noncompliance.

25.3(3) Contents of plan. The inspection plan includes the following elements:

a. *General.* A listing of all counties or parts of counties in which the utility has electric supply lines in Iowa. If the utility has district or regional offices responsible for implementation of a portion of the plan, the addresses of those offices and a description of the territory for which they are responsible shall also be included.

b. *Inspection of lines, poles, and substations.*

(1) Inspection schedules. The plan shall contain a schedule for the periodic inspection of the various units of the utility’s electric plant. The period between inspections shall be based on accepted good practice in the industry, but for lines and substations shall not exceed ten years for any given line or piece of equipment. Lines operated at 34.5 kV or above shall be inspected at least annually for damage and to determine the condition of the overhead line insulators.

(2) Inspection coverage. The plan shall provide for the inspection of all supply line and substation units within the adopted inspection periods and shall include a complete listing of all categories of items to be checked during an inspection.

(3) Conduct of inspections. Inspections shall be conducted in a manner conducive to the identification of safety, maintenance, and reliability concerns or needs.

(4) Instructions to inspectors. Copies of instructions or guide materials used by utility inspectors in determining whether a facility is in acceptable condition or in need of corrective action or further investigation.

c. *Tree trimming or vegetation management plan.*

(1) Schedule. The plan shall contain a schedule for periodic tree trimming or other measures to control vegetation growth under or along the various units of the utility’s electric plant. The period

between inspections shall be based on accepted good practice in the industry and may vary depending on the nature of the vegetation at different locations, not exceeding five years between inspections.

(2) Procedures. The plan shall include written procedures for vegetation management. The procedures shall promote the safety and reliability of electric lines and facilities. Where tree trimming is employed, practices shall be adopted that will protect the health of the tree and reduce undesirable regrowth patterns.

d. Pole inspections. Pole inspections shall periodically include an examination of the poles that includes tests in addition to visual inspection in appropriate circumstances. These additional tests may include sounding, boring, groundline exposure, and, if applicable, pole treatment.

25.3(4) Records. Each utility shall keep sufficient records to demonstrate compliance with its inspection and vegetation management plans. For each inspection unit, the records of line and substation inspections and pole inspections shall include the inspection date(s), the findings of the inspection, and the disposition or scheduling of repairs or maintenance found necessary during the inspection. For each inspection unit, the records of vegetation management shall include the date(s) during which the work was conducted. The records shall be kept until two years after the next periodic inspection or vegetation management action in the inspection and maintenance plan cycle is completed or until all necessary repairs and maintenance are completed, whichever is longer.

25.3(5) Guidelines. Applicable portions of Rural Utilities Service (RUS) Bulletins 1730-1, 1730B-121, and 1724E-300 and “The Lineman’s and Cableman’s Handbook” are suggested as guidelines for the development and implementation of an inspection plan. ANSI A300 (Part 1)-2008 (R2014), “Pruning,” and Section 35 of “The Lineman’s and Cableman’s Handbook” are suggested as guides for tree trimming practices.

199—25.4(476,478) Correction of problems found during inspections and pole attachment procedures.

25.4(1) Corrective action shall be taken within a reasonable period of time on all potentially hazardous conditions, instances of safety code noncompliance, maintenance needs, potential threats to safety and reliability, or other concerns identified during inspections. Hazardous conditions shall be corrected promptly. In addition to the general requirements stated in this subrule, pole attachments shall comply with the specific requirements and procedures established in subrule 25.4(2).

25.4(2) To ensure the safety of pole attachments to poles owned by utilities in Iowa, this subrule establishes requirements for attaching electric lines, communications lines, cable systems, video service lines, data lines, wireless antennae and other wireless facilities, or similar lines and facilities that are attached to the excess space on poles owned by utilities.

a. Definitions. The following definitions apply to this rule.

“*Pole*” means any pole owned by a utility that carries electric lines, communications lines, cable systems, video service lines, data service lines, wireless antennae or other wireless facilities, or similar lines and facilities.

“*Pole attachment*” means any electric line, communication circuit, cable system, video service line, data service line, antenna and other associated wireless equipment, or similar lines and facilities attached to a pole or other supporting structure subject to the safety jurisdiction of the board pursuant to the Iowa electrical safety code, 199—25.2(476,476A,478).

“*Pole occupant*” means any electric utility, telecommunications carrier, cable system provider, video service provider, data service provider, wireless service provider, or similar person or entity that constructs, operates, or maintains pole attachments as defined in this chapter.

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“*Pole owner*” means a utility that owns poles subject to the safety jurisdiction of the board pursuant to the Iowa electrical safety code, 199—25.2(476,476A,478).

b. Compliance with Iowa electrical safety code. Pole attachments to poles shall be constructed, installed, operated, and maintained in compliance with the Iowa electrical safety code, 199—25.2(476,476A,478), and the requirements and procedures established in this subrule.

c. Requests for access to poles; exceptions for service drops and overlashing.

(1) A pole owner shall provide nondiscriminatory access to poles it owns, to the extent required by federal or state law. Requests for access to poles by an electric utility, telecommunications carrier, cable system operator, video service provider, data service provider, wireless service provider, or similar person or entity shall be made in writing or by any method as may be agreed upon by the pole owner and the person or entity requesting access to the pole. If access is denied, the pole owner shall explain in detail the specific reason for denial and how the denial relates to reasons of lack of capacity, safety, reliability, or engineering standards.

(2) Service drops are not subject to the notice and approval requirements in subparagraph 25.4(2) “*c*”(1). Instead, pole occupants shall provide notice to pole owners within 30 days of the installation of a new service drop, unless the pole occupant and pole owner have negotiated a different notification requirement.

(3) Overlashing of existing lines is not subject to the notice and approval requirements in subparagraph 25.4(2) “*c*”(1). Pole occupants shall provide notice to pole owners of proposed overlashing at least 7 days prior to installation of the overlashing, unless the pole occupant and pole owner have negotiated a different notification requirement.

d. Notification of violation. A pole owner shall notify in writing a pole occupant of an alleged violation of the Iowa electrical safety code by a pole attachment owned by the pole occupant or may provide notice by another method as may be agreed upon by the parties to a pole attachment agreement. The notice shall include the address and pole location where the alleged violation occurred, a description of the alleged violation, and suggested corrective action.

e. Corrective action.

(1) Upon receipt of notification from a pole owner that the pole occupant has one or more pole attachments in violation of the Iowa electrical safety code, the pole occupant shall respond to the pole owner within 60 days in writing or by another method as may be agreed upon by the pole occupant and the pole owner. The response provides a plan for corrective action, state that the violation has been corrected, indicate that the pole attachment is owned by a different pole occupant, or indicate that the pole occupant disputes that a violation has occurred. The violation shall be corrected within 180 days of the date notification is received unless good cause is shown for any delay in taking corrective action. A disagreement that a violation has occurred, a claim that correction is not possible within the specific time frames due to events beyond the control of the pole occupant, or a claim that a different pole occupant is responsible for the alleged violation will be considered good cause to extend the time for taking corrective action. The pole occupant and pole owner may also agree to an extension of the time for taking corrective action. The pole owner and pole occupant shall cooperate in determining the cause of a violation and an efficient and cost-effective method of correcting a violation.

(2) If the violation could reasonably be expected to endanger life or property, the pole occupant shall take the necessary action to correct, disconnect, or isolate the problem immediately upon notification. If immediate corrective action is not taken by the pole occupant for a violation that could reasonably be expected to endanger life or property, the pole owner may take the necessary corrective action and the pole occupant shall reimburse the pole owner for the actual cost of any corrective measures. If the pole owner is later determined to have caused the violation and the pole

occupant has taken corrective action, the pole owner shall reimburse the pole occupant for the actual cost of the corrective action. Disputes concerning the ownership of the pole attachment should be resolved as quickly as possible.

f. Negotiated resolution of disputes. Parties to disputes over alleged violations of the Iowa electrical safety code, the cause of a violation, the pole occupant responsible for the violation, the cost-effective corrective action, or any other dispute regarding the provisions of subrule 25.4(2) shall attempt to resolve disputes through good-faith negotiations. Parties may file an informal complaint with the board pursuant to 199—Chapter 6 as part of negotiations.

g. Complaints. Complaints concerning the requirements or procedures established in subrule 25.4(2), including alleged violations of the Iowa electrical safety code, may be filed with the board by pole owners or pole occupants pursuant to the complaint procedures in 199—Chapter 6.

h. Civil penalties. Persons found to have violated the provisions of subrule 25.4(2) may be subject to civil penalties pursuant to Iowa Code section 476.51 or to other action by the board.

199—25.5(476,478) Accident reports. This rule applies to all owners or operators of electrical facilities subject to the safety jurisdiction of the board under this chapter.

25.5(1) All owners and operators of electrical facilities subject to the safety jurisdiction of the board shall provide the board with a 24-hour contact number where the board can obtain immediate access to a person knowledgeable about any incidents involving contact with energized electrical facilities.

25.5(2) All owners and operators of electrical facilities subject to the safety jurisdiction of the board shall notify the board of any incident or accident involving contact with energized electrical facilities that meets the following conditions:

- a.* An employee or other person coming in contact with energized electrical facilities which results in death or personal injury necessitating in-patient hospitalization.
- b.* Estimated property damage of \$15,000 or more to the property of the utility and others.
- c.* Any other incident considered significant by the company.
- d.* Any incident leading to an electrical line being taken out of service.

25.5(3) The board shall be notified immediately, or as soon as practical thereafter, by email to the board duty officer at dutyofficer@iub.iowa.gov or, if email service is not available, by calling (515)745-2332. The person contacting the board shall leave a telephone number of a person who can provide the following information:

- a.* The name of the company, the name and telephone number of the person making the report, and the name and telephone number of a contact person knowledgeable about the incident.
- b.* The location of the incident.
- c.* The time of the incident.
- d.* The number of deaths or personal injuries requiring in-patient hospitalization and the extent of those injuries.
- e.* Initial estimate of damages.
- f.* A summary of the significant information available regarding the probable cause of the incident and extent of damages.
- g.* Any oral or written report made to a federal agency, the agency receiving the report, and the name and telephone number of the person who made or prepared the report.

25.5(4) Written incident reports. Within 30 days of the date of the incident, the owner or operator shall file a written report with the board. The report includes the information required for notice in subrule 25.5(3), the probable cause as determined by the company, the number and cause of any deaths or personal injuries requiring in-patient hospitalization, and a detailed description of

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property damage and the amount of monetary damages. If significant additional information becomes available at a later date, a supplemental report shall be filed. Duplicate copies of any written reports filed with or submitted to a federal agency concerning the incident shall also be provided to the board.

These rules are intended to implement Iowa Code chapter 478.