Review of Proposed MOPSC 4 CSR 240-23.020 Electrical Corporation Infrastructure Standards Rules and Impact on Empire District Electric Company

Prepared for
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August 8th, 2007

Table of Contents

INTRODUCTION

Osmose Utilities Services, Inc. contracts with over 800 Utilities nation wide. For 73 years Osmose has dedicated itself to assisting utilities in managing the strength and load of their greatest asset, which is their pole plant. In the last 20 years we have provided our expertise to include many other services and partnering with utilities across the United States to develop a total Asset Management Program. These services include developing an accurate electrical model through GIS/GPS; pad mounted transformer inspection and painting, transformer audits, right of way spraying, pole inspection and treatment, and pole restoration options.

This report presents Osmoses' review and comments on the Missouri Public Service Commission proposed rules as they relate to electric utility infrastructure maintenance.

REVIEW OF MOPSC PROPOSED RULES

4 CSR 240-23.020 Electrical Corporation Infrastructure Standards And Reporting Requirements – Draft 4-13-07

The Missouri Public Service Commission (MOPSC) prepared proposed regulatory rules regarding infrastructure standards applicable to electric utility companies within Missouri and under the regulatory authority of the MOPSC. The complete text of the draft rule is contained in Appendix A of this report.

The following summarizes issues and concerns related to each section of the draft Standard.

Proposed Rule

Purpose and scope:

This rule establishes the minimum requirements for the distribution and transmission facilities of "electrical corporations" as defined in §386.020(15) RSMo. Cum. Supp. 2006 regarding inspection (including maximum allowable inspection cycle lengths), condition rating, scheduling and performance of corrective action, record-keeping, and reporting, in order to ensure safe and high-quality electrical service. These requirements shall be based on factors such as applicable industry codes, national electric industry practices, manufacturer's recommendations, sound engineering judgment and past experience.

Comment

The NESC, OSHA, and ANSI guidelines have been developed and modified over decades. The intent of these guidelines is to help establish 'workable' 'practical' solutions to safe and quality operations by Electrical Utilities. To require that a process be 'absolute', as the proposed rule does, does not seem practical.

Severe weather events, fires, earth quakes, and an individual's decisions to engage in personal unsafe acts, make it impossible to 'ensure' safe and high quality electrical service at all times. Sound planning and consistent implementation of predictive and preventative maintenance programs related to the outside electrical plant can help to keep both safety and quality of service high on an electrical Transmission and Distribution system.

(1) Applicability: This rule applies to all "electrical corporations" (EC) as defined in §386.020(15) Cum. Supp. 2006.

Comment

Factors such as location relative to decay zone, age of pole plant, storm frequency, type of original pole treatment, and inclusion of remedial treatments for wood pole life extension should be taken into consideration when determining the type and timing of inspections.

The vagueness of the MOPSC proposed rule provides for broad interpretation as is evident in the fiscal response provided by the affected utilities as listed in the Missouri Register, Vol. 32, No. 14 date July 16th, 2007, pages 1101, 1102 and 1103. This vagueness could cause misinterpretation of the rule by the utility resulting in misapplied allocation of resources.

The lack of quantifying the condition rating makes it difficult for utilities to comply with the rule. It may be appropriate for the IOU to have the authority to classify condition or have the ability to deviate from the final rule if current maintenance practices are equal to or superior than the recommended standard.

Other State PSCs allow utilities to participate during the rule making process. On the agenda dated February 2, 2006 of the Docket No. 060078-EI, dated January 26, 2006, of the Florida Public Service Commission, Proposal to Require Investor Owned Electric Utilities to Implement a Ten-Year Wood Pole Inspection Program, all interested persons may participate. Example: The Florida Commission is considering an adjustment to requiring the treatment of CCA poles at 10 years based on data gathered during the IOUs ongoing inspection process. Furthermore, each IOU has the opportunity to respond to the Commission by either removing the deviation or by providing further data to support the deviation.

Major indices (SAIFI, SAIDI, etc.) appear to be part of ongoing analysis of system performance by public service commissions. The performance of the overhead and underground components or equipment is an integral part of those indices as well.

Cost Drivers

- Staff, training, contractors, vehicles, poles and equipment to rectify identified corrective actions, office space, software, software maintenance, computers, computer maintenance and upgrades, archiving data, record keeping, program management, customer relations, litigation.

(2) Definitions:

For the purpose of this Rule:

(A) "Corrective Action" shall be defined as maintenance, repair, or replacement of electrical corporation equipment and structures so that they function properly and safely.

(**B)** "Detailed" inspection shall be defined as one where individual pieces of equipment and structures are carefully examined, visually and through use of routine diagnostic test, as appropriate, and (if practical and if useful information can be so gathered) opened, and the condition of each rated and recorded.

(**C)** "Intrusive" inspection is defined as one involving movement of soil, taking samples for analysis, and/or using more sophisticated diagnostic tools beyond visual inspections or instrument reading.

(**D)** "Operating Area" means a geographical subdivision of each electrical corporation's franchise territory as defined by the electrical corporation. These areas may also be referred to as regions, divisions or districts.

(E) "Patrol" shall be defined as a simple visual inspection, of applicable electrical corporation equipment and structures, that is designed to identify obvious structural problems and hazards. Patrols may be carried out in the course of other company business.

(**F)** "Rural" shall be defined as those areas with a population of less than 1,000 persons per square mile as determined by the most recent United States Bureau of the Census.

(G) "Urban" shall be defined as those areas with a population of more than 1,000 persons per square mile as determined by the most recent United States Bureau of the Census.

Comment

The definition of 'intrusive' above, though relevant, does not necessarily follow "industry standards". Guiding documents such as the United States Department of Agriculture's Rural Utilities Service Bulletin 1730B-121 Pole Inspection and Maintenance and the American Wood Protection Association M13-06 Guide for a Pole Maintenance Program have been referenced for many years to provide guidance to electrical utilities relative to the management of strength, load and corrective actions of their pole plant.

The definition of 'detailed' is also very vague when applied to the electric corporation system inspection cycles table and is most likely to have contributed to the large discrepancy in cost estimates provided from the various Missouri IOUs as identified in the assumptions listed in the Mo Register.

The inspection method described in the proposed rulemaking is a minimalist approach to predictive maintenance on wood poles. Short term, it will find 'the worst of the worst' poles in the plant. Long term, it does nothing to avoid future replacements. The process prescribed by the rulemaking is basically a 'run to failure' strategy and should be considered the most expensive.

Other Public Service Commissions have also required the inclusion of remedial treatments. Including the use of remedial treatments does provide for:

1. A more accurate inspection, thus increasing the reliability of the system, and safety for the public and the utility employee through the duration of the cycle. These practices normally apply to all transmission, distribution and secondary wood poles in an effort to increase reliability and decrease the risk associated with pole ownership.
2. Extended life of the asset, thus reducing total cost of ownership associated with the outside plant.

These comments are primarily for wood poles in response to the proposed infrastructure rule. The useful service life of steel and concrete poles could also be extended through inspection, cathodic protection, application of coatings, and predicted repairs as needed, although steel and concrete poles were not referenced in the proposed rule.

Cost Drivers

- Staff, training, contractors, vehicles, poles and equipment to rectify identified corrective actions, office space, software, software maintenance, computers, computer maintenance and upgrades, archiving data, record keeping, program management, customer relations, litigation.

(3) Standards for Inspection, Record-keeping, and Reporting

(A) Each electrical corporation subject to this rule shall conduct inspections of its distribution facilities, as necessary, to assure reliable, high-quality, and safe operation, but in no case may the period between inspections (measured in years) exceed the time specified in the attached table titled "Electric Corporation System Inspection Cycles (Maximum Intervals in Years)".

Comment

Overall, observation of the table is vague and unclear which could result in additional cost to implement pending interpretation.

(**B)** Each electrical corporation subject to this rule shall file at the Commission by no later than January 1, 2008, compliance plans for the inspections and record-keeping required by this rule, with verification by

affidavit of an officer who has knowledge of the matters stated therein. These compliance plans will include the proposed forms and formats for annual reports and source records, as well as the electrical corporation's plans for the types of inspections and equipment to be inspected during the coming year. For detailed and intrusive inspections, schedules should be detailed enough (in terms of the months of inspection and the circuit, area, or equipment / to be inspected) to allow Commission Staff to confirm that schedule inspections are proceeding as planned. For patrol inspections, electrical corporations should explain how all required facilities will be covered during the year. The Energy Department or any successor staff departments may prescribe changes relating to reporting and record-keeping formats and forms when and as necessary as approved by the Commission if the EC does not voluntarily agree to the changes requested by Staff. None of these changes may conflict with the requirements of this rule unless specifically approved by the Commission through a variance.

Comment

Planning out the entire system by month may be very complicated. A utility would also need to predict the follow up maintenance by month. It may be appropriate to schedule by SUBSTATION, by YEAR, to make it more manageable for the utility and the 'staff". Some IOUs may find it difficult to respond within a 5 month time frame from the date of acceptance. A time extension may be appropriate to allow the IOUs enough time to adequately respond with any request for deviations from the final rule relative to reporting compliance.

Some utilities have also added a 'worst performing feeder' program to their maintenance strategy. With this program, the feeders or circuits that have the weakest indices (SAIFI, SAIDI) are given top priority. Many times three phase feeders are given priority over single phase laterals. It may be more appropriate to focus patrol cycles annually for 3 phase main feeders and every three years for laterals.

The idea that 'any successor staff department' will have the authority to force a utility to change it's reporting has the potential to create duplicate reports and collect and maintain data not consistent with intent of the final rulemaking. It would seem much more appropriate to have any changes go through only the MOPSC.

Cost Drivers

- Staff, training, vehicles, office space, software, software maintenance, computers, computer maintenance and upgrades, archiving data, record keeping, program management, customer relations, litigation.

(**C)** Each electrical corporation subject to this rule shall file at the Commission an annual report detailing its compliance with this rule, with verification by affidavit of an officer who has knowledge of the matters stated therein. The first report required under this section shall be filed with the Commission by no later than July 1, 2009. Each electrical corporation shall file subsequent annual reports for every following year

by no later than July 1. The report shall identify the number of facilities, by type which have been inspected during the previous period. It shall identify those facilities which were scheduled for inspection but which were not inspected according to schedule and shall explain why the inspections were not conducted, and a date certain by which the required inspection will occur. The report shall also present the total and percentage breakdown of equipment rated at each condition rating level, including that equipment determined to be in need of corrective action. Where corrective action was scheduled during the reporting period, the report will present the total and percentage of equipment which was and was not corrected during the reporting period. For the latter, an explanation will be provided, including a date certain by which required corrective action will occur. The report will also present totals and the percentage of equipment in need of corrective action, but with a scheduled date beyond the reporting period, classified by the amount of time remaining before the scheduled action. All of the above information shall be presented for each type of facility identified in the attached table titled "Electric Corporation System Inspection Cycles (Maximum Intervals in Years)"and shall be aggregated by operating area.

Comment

It is critical that the MOPSC bring clarity to the reporting requirements of the data to be collected before implementing it. There are industry standard data management software tools that provide a utility with the ability to query specific information. Establishing a clear specification around the collection of data, electronically, by Contractor and Utility personnel is crucial to cost effectively complying with the proposed rulemaking.

The statement requesting a report to identify the percentage breakdown of equipment related at each condition rating level, including that equipment determined to be in need of corrective action is vague. The rating/condition may be as easy as identifying item as OK, Repair or Replace or it could be a lot more complicated.

Some utilities will have to develop or purchase software programs or packages. In some cases, the utility may incur significant hardware, software and annual maintenance costs as a result of the reporting requirement.

Cost Drivers

- Staff, training, software, software maintenance, computers, computer maintenance and upgrades, training, record keeping, program management.

(**D)** The company shall maintain records of inspection activities which shall be made available to Commission Staff for inspection pursuant to §393.140 RSMo 2000 and 4 CSR 240-10.010.

(**E)** For all inspections, within a reasonable period, company records shall specify the circuit, area, or equipment inspected, the name of the inspector, the date of the inspection, and any problems identified during each inspection, as well as the scheduled date of corrective action. For detailed and intrusive inspections, companies shall also rate the condition of inspected equipment. Upon completion of corrective action, company records will show the nature of the work, the date, and the identity of persons performing the work.

Comment

Establishing a clear specification around the collection of data, electronically, by Contractors and Utility personnel is crucial to this effort. The required reports can be produced for any data that is acquired during the inspections. Limiting the amount of data mandated by the rule will help limit the need for investment in additional utility personnel. Again, some utilities will have to develop or purchase software programs or packages. In some cases, the utility may incur significant hardware, software and annual maintenance costs as a result of the reporting requirement.

Cost Drivers

- Staff, training, software, software maintenance, computers, computer maintenance and upgrades, training, record keeping, program management, customer relations, litigation cost.

(F) Where facilities are exposed to extraordinary conditions or when an electric corporation has demonstrated a pattern of non-compliance with Commission Safety Standards, 4 CSR 240-18; Electrical Corporation Infrastructure Standards, 4 CSR 240-23.020; and /or Reliability Rules, 4 CSR 240-23.030, the Commission may require a shorter interval between inspections.

Comment

To gain the maximum benefit from inspection, an annual review of inspection cycle should be conducted to determine if the inspection cycle should be lengthened as well. Inspecting facilities too frequently may not improve service quality or safety; it only increases the cost of service for the consumer.

(G) Commission Staff shall review each electrical corporation's annual report and shall inspect and verify that the electrical corporation is in compliance with this rule.

(H) If the company discovers, or should have discovered, upon inspection as required under this rule, or the company is otherwise given

notice that corrective action of an electrical corporation's facility is required due to standards to be exercised by a prudent electrical corporation then the electric corporation shall take such corrective action within a reasonable period of time. If harm to person or property is possible if corrective action is not taken then such corrective action shall be made immediately.

Comment

This statement is similar by intent to language contained within the National Electrical Safety Code, NESC.

Cost Drivers

- Record keeping, program management.

(4) Penalties, Fines, Sanctions and/or Ratemaking Disallowances

(A) Failure to comply with any provision of this rule may subject the violator to penalties, fines, sanctions and /or ratemaking disallowances in accordance with the Commission's statutory authority. No penalties, fines, sanctions and/or ratemaking disallowances shall be imposed for violations of this rule for a period of six months from the effective date of this rule.

Comment

If an electric corporation does not already have an existing program in place, it will be difficult to fully implement and be compliant with the rule in a 6 month timeframe due to lack of budget, personnel, and training.

(B) An electrical corporation that violates this rule may be subject to a penalty of not less than one hundred dollars ($100.00) and not more than two thousand dollars ($2,000.00) per day per violation, for each day the violation occurs as permitted under Missouri Statutes. The Commission shall notify the electrical corporation of the violation(s) in writing. Upon receipt of the written notice of violation, the electrical corporation shall have five business days to correct the violation(s). Any failure to correct the violation may subject the electrical corporation to a penalty of not less than $100.00 per day for each violation, calculated from the day such written notice was received by the electrical corporation.

Comment

Significant fines could be either easily avoided, or impossible to avoid. Either way, additional processes and tracking mechanisms will need to be established to help avoid citation and fine. Five days to correct violations will not always be sufficient due to variables (storms, material lead times, etc.) beyond the control of the utility.

(C) The Commission may consider violations of this rule as a relevant factor in setting rates for the electrical corporation in a case where the

Commission is examining the propriety of the electrical corporation's rates.

Comment

The subjectivity of this loose guide seems to have the potential to drive costs up. The rules are vague and make it impossible to understand the total operational and financial impact if the ruling is finalized as written. A utility could be penalized twice, once for not being in compliance and secondly if expenses/investments associated with becoming compliant are not considered relevant in setting rates. Additionally, it appears that a utility will have no way to recover increased costs until such time as the next rate case filing.

(D) Penalties, fines, sanctions and/or ratemaking disallowances imposed for violations of this rule are in addition to, not a replacement for, other penalties, fines and/or sanctions that apply under other State laws and regulations and under Federal laws and regulations.

(E) In determining the appropriate penalties, fines, sanctions and/or ratemaking disallowances for violation of this rule, the Commission shall consider the following criteria, and any other factors deemed appropriate and material to the electrical corporation's delay or failure to comply:

1. The good faith efforts, if any, of the electrical corporation in attempting to comply with this rule;
2. The gravity of the violation;
3. The number of past violations by the electrical corporation, including violations of this rule, as well as of other standards, guidelines and procedures adopted by the Commission;
4. The appropriateness of the sanction(s) in light of the size of the electrical corporation;
5. Events judged by the Commission to be beyond the control of the electrical corporation; and
6. Mitigating factors.

Comment

The subjectivity of this loose guide has the potential to drive costs up.

(5) Variances

A variance from a provision of this rule may be granted only for good cause shown.

(6) Electric Corporation System Inspection Cycles

Electric Corporation System Inspection Cycles (Max. Intervals in Years)

Comment

This schedule is confusing. Poles constructed of non-wood material such as fiberglass, concrete or metal appeared to be ignored by the ruling. It appears that the table is requiring wood poles that are newer than 15 years to be patrolled once every year in urban areas and once every two years in rural areas. That requirement carries over to poles older than 15 years that are being inspected with the intrusive method for the first time, assuming the intrusive method is defined as 18" excavation, sound and bore and external treatment for Southern Yellow Pine (SYP) species and fumigant treatment for Douglas fir (DF) and Western Red Cedar (WRC). Once a pole has become old enough to be on the second cycle, the patrol requirements are dropped. This is counter intuitive. Older poles should also be subject to patrol inspections

"Patrolling" on a 1 and 2 year cycles does not seem warranted unless there is a known stray voltage risk that is prevalent. An alternate strategy would include annual patrol of 3 phase feeders and a three year cycle for laterals. Such a strategy would provide improved reliability to maximum amount of consumers. Adjustments to program's strategies should be considered to achieve the maximum cost/benefit for the consumers while meeting reliable goals.

The proposed rule assumes that a Patrol inspection for a pole is really an above ground inspection of the facilities that the pole supports, in addition to pole and guying conditions observations. With this schedule, the Patrol could be dropped when the cycle calls for an intrusive inspection (once every 12 years).

The ruling is vague relative to underground inspections. It appears definitions are needed to define the criteria for inspection of direct buried distribution circuits and buried distribution circuits constructed of ethylene propylene rubber. It's not clear how this would impact the cycle for transformers, switching/protective devices, regulators and capacitors.

The interpretation of 'detailed inspection' significantly impacts the cost of the detailed inspection of overhead and underground equipment. Also, the interpretation could unduly increase the exposure of inspectors and the public to hazards during the inspection.

Cost Drivers

- Staff, training, contractors, vehicles, poles and equipment to rectify identified corrective actions, office space, software, software

maintenance, computers, computer maintenance and upgrades, archiving data, record keeping, program management.

Appendix A

Complete Text of Draft Missouri Public Service Commission 4/13/2007 Draft Electrical Corporation Infrastructure Standards

DRAFT 4-13-07
4 CSR 240-23.020 Electrical Corporation Infrastructure Standards

Purpose
This rule establishes the minimum requirements for the distribution and transmission facilities of "electrical corporations" as defined in §386.020(15) RSMo. Cum. Supp. 2006 regarding inspection (including maximum allowable inspection cycle lengths), condition rating, scheduling and performance of corrective action, record-keeping, and reporting, in order to ensure safe and high-quality electrical service. These requirements shall be based on factors such as applicable industry codes, national electric industry practices, manufacturer's recommendations, sound engineering judgment and past experience.

(1) Applicability
This rule applies to all "electrical corporations" (EC) as defined in §386.020(15) Cum. Supp. 2006.

(2) Definitions

For the purpose of this Rule:

(A) "Corrective Action" shall be defined as maintenance, repair, or replacement of electrical corporation equipment and structures so that they function properly and safely.

(**B)** "Detailed" inspection shall be defined as one where individual pieces of equipment and structures are carefully examined, visually and through use of routine diagnostic test, as appropriate, and (if practical and if useful information can be so gathered) opened, and the condition of each rated and recorded.

(**C)** "Intrusive" inspection is defined as one involving movement of soil, taking samples for analysis, and/or using more sophisticated diagnostic tools beyond visual inspections or instrument reading.

(**D)** "Operating Area" means a geographical subdivision of each electrical corporation's franchise territory as defined by the electrical corporation. These areas may also be referred to as regions, divisions or districts.

(E) "Patrol" shall be defined as a simple visual inspection, of applicable electrical corporation equipment and structures, that is designed to identify obvious structural problems and hazards. Patrols may be carried out in the course of other company business.

(**F)** "Rural" shall be defined as those areas with a population of less than 1,000 persons per square mile as determined by the most recent United States Bureau of the Census.

(G) "Urban" shall be defined as those areas with a population of more than 1,000 persons per square mile as determined by the most recent United States Bureau of the Census.

(3) Standards for Inspection, Record-keeping, and Reporting

(A) Each electrical corporation subject to this rule shall conduct inspections of its distribution facilities, as necessary, to assure reliable, high-quality, and safe operation, but in no case may the period between inspections (measured in years) exceed the time specified in the attached table titled "Electric Corporation System Inspection Cycles (Maximum Intervals in Years)".

(**B)** Each electrical corporation subject to this rule shall file at the Commission by no later than January 1, 2008, compliance plans for the inspections and record-keeping required by this rule, with verification by affidavit of an officer who has knowledge of the matters stated therein. These compliance plans will include the proposed forms and formats for annual reports and source records, as well as the electrical corporation's plans for the types of inspections and equipment to be inspected during the coming year. For detailed and intrusive inspections, schedules should be detailed enough (in terms of the months of inspection and the circuit, area, or equipment / to be inspected) to allow Commission Staff to confirm that schedule inspections are proceeding as planned. For patrol inspections, electrical corporations should explain how all required facilities will be covered during the year. The Energy Department or any successor staff departments may prescribe changes relating to reporting and record-keeping formats and forms when and as necessary as approved by the Commission if the EC does not voluntarily agree to the changes requested by Staff. None of these changes may conflict with the requirements of this rule unless specifically approved by the Commission through a variance.

(**C)** Each electrical corporation subject to this rule shall file at the Commission an annual report detailing its compliance with this rule, with verification by affidavit of an officer who has knowledge of the matters stated therein. The first report required under this section shall be filed with the Commission by no later than July 1, 2009. Each electrical corporation shall file subsequent annual reports for every following year by no later than July 1. The report shall identify the number of facilities, by type which have been inspected during the previous period. It shall identify those facilities which were scheduled for inspection but which were not inspected according to schedule and shall explain why the inspections were not conducted, and a date certain by which the required inspection will occur. The report shall also present the total and percentage breakdown of equipment rated at each condition rating level, including that equipment determined to be in need of corrective action. Where corrective action was scheduled during the reporting period, the report will present the total and percentage of equipment which was and was not corrected during the reporting period. For the latter, an explanation will be provided, including a date certain by which required corrective action will occur. The report will also present totals and the percentage of equipment in need of corrective action, but with a scheduled date beyond the reporting period, classified by the amount of time remaining before the scheduled action. All of the above information shall be presented for each type of facility identified in the attached table titled "Electric Corporation System Inspection Cycles (Maximum Intervals in Years)"and shall be aggregated by operating area.

(**D)** The company shall maintain records of inspection activities which shall be made available to Commission Staff for inspection pursuant to §393.140 RSMo 2000 and 4 CSR 240-10.010.

(**E)** For all inspections, within a reasonable period, company records shall specify the circuit, area, or equipment inspected, the name of the inspector, the date of the inspection, and any problems identified during each inspection, as well as the scheduled date of corrective action. For detailed and intrusive inspections, companies shall also rate the condition of inspected equipment. Upon completion of corrective action, company records will show the nature of the work, the date, and the identity of persons performing the work.

(F) Where facilities are exposed to extraordinary conditions or when an electric corporation has demonstrated a pattern of non-compliance with Commission Safety Standards, 4 CSR 240-18; Electrical Corporation Infrastructure Standards, 4 CSR 240-23.020; and /or Reliability Rules, 4 CSR 240-23.030, the Commission may require a shorter interval between inspections.

(G) Commission Staff shall review each electrical corporation’s annual report and shall inspect and verify that the electrical corporation is in compliance with this rule.

(H) If the company discovers, or should have discovered, upon inspection as required under this rule, or the company is otherwise given notice that corrective action of an electrical corporation's facility is required due to standards to be exercised by a prudent electrical corporation then the electric corporation shall take such corrective action within a reasonable period of time. If harm to person or property is possible if corrective action is not taken then such corrective action shall be made immediately.

(4) Penalties, Fines, Sanctions and/or Ratemaking Disallowances

(A) Failure to comply with any provision of this rule may subject the violator to penalties, fines, sanctions and /or ratemaking disallowances in accordance with the Commission's statutory authority. No penalties, fines, sanctions and/or ratemaking disallowances shall be imposed for violations of this rule for a period of six months from the effective date of this rule.

(B) An electrical corporation that violates this rule may be subject to a penalty of not less than one hundred dollars ($100.00) and not more than two thousand dollars ($2,000.00) per day per violation, for each day the violation occurs as permitted under Missouri Statutes. The Commission shall notify the electrical corporation of the violation(s) in writing. Upon receipt of the written notice of violation, the electrical corporation shall have five business days to correct the violation(s). Any failure to correct the violation may subject the electrical corporation to a penalty of not less than $100.00 per day for each violation, calculated from the day such written notice was received by the electrical corporation.

(C) The Commission may consider violations of this rule as a relevant factor in setting rates for the electrical corporation in a case where the Commission is examining the propriety of the electrical corporation's rates.

(D) Penalties, fines, sanctions and/or ratemaking disallowances imposed for violations of this rule are in addition to, not a replacement for, other penalties, fines and/or sanctions that apply under other State laws and regulations and under Federal laws and regulations.

(E) In determining the appropriate penalties, fines, sanctions and/or ratemaking disallowances for violation of this rule, the Commission shall consider the following criteria, and any other factors deemed appropriate and material to the electrical corporation's delay or failure to comply:

1. The good faith efforts, if any, of the electrical corporation in attempting to comply with this rule;
2. The gravity of the violation;
3. The number of past violations by the electrical corporation, including violations of this rule, as well as of other standards, guidelines and procedures adopted by the Commission;

4. The appropriateness of the sanction(s) in light of the size of the electrical corporation;
5. Events judged by the Commission to be beyond the control of the electrical corporation; and
6. Mitigating factors.

(5) Variances

A variance from a provision of this rule may be granted only for good cause shown.

Electric Corporation System Inspection Cycles (Maximum Intervals in Years)

	Patrol		Detailed		Intrusive	
	Urban	Rural	Urban	Rural	Urban	Rural
Transformers						
Overhead	1	2	5	5	---	---
Underground – Direct Buried Distribution Circuits	1	2	3	3		
Underground- Buried Distribution Circuits constructed of Ethylene Propylene Rubber (EPR)	1	2	5	5		
Padmounted	1	2	5	5	---	---
Switching/Protective Devices						
Overhead	1	2	5	5	---	---
Underground – Direct Buried Distribution Circuits	1	2	3	3		
Underground- Buried Distribution Circuits constructed of (EPR)	1	2	5	5		
Padmounted	1	2	5	5	---	---
Regulators/Capacitors						
Overhead	1	2	5	5	---	---
Underground – Direct Buried Distribution Circuits	1	2	3	3		
Underground- Buried Distribution Circuits constructed of (EPR)	1	2	5	5		

Padmounted	1	2	5	5	---	---
Overhead Conductor and Cables	1	2	5	5	---	---
Streetlighting	1	2	x	x	---	---
Wood Poles under 15 years	1	2	x	x	---	---
Wood Poles over 15 years which have not been subject to intrusive inspection	1	2	x	x	10	10
Wood poles which passed intrusive inspection	---	---	---	---	12	12