

**Kansas City Power & Light Company
2013 Annual Infrastructure Compliance Report
Pursuant to 4 CSR 240-23.020**

**KCP&L Greater Missouri Operations Company
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Infrastructure Inspection and Maintenance Program

July 1, 2014

Table of Contents

Introduction	1
Distribution System Summary	1
KCP&L Area Inspections	2
Table 1: KCP&L Inspection Corrective Action Inspections	2
GMO Area Inspections	3
Table 2: GMO Inspection Corrective Action Inspections	3
Table 3: Combined Distribution Equipment Rating Summary.....	4
Table 4: Combined Distribution Corrective Action Summary	4
Transmission System Summary	5
Table 5: KCP&L Transmission Corrective Action and Equipment Conditions	5
Table 6: GMO Transmission Corrective Action and Equipment Conditions.....	6
Table 7: KCP&L Transmission Equipment Condition Rating Summary.....	6
Table 8: GMO Transmission Equipment Condition Rating Summary.....	7
Table 9: KCP&L Transmission Corrective Action (CA) Summary	7
Table 10: GMO Transmission Corrective Action (CA) Summary	8

Introduction

Kansas City Power & Light Company (“KCP&L”) and KCP&L Greater Missouri Operations Company (“GMO”) (collectively, “Companies”), submit their 2013 Annual Infrastructure Compliance Reports as required under the State of Missouri’s *Electrical Corporation Infrastructure Standards*, 4 CSR 240-23.020 (“MoIR”). This report covers the period January 1, 2013, through December 31, 2013, incorporating by reference KCP&L and GMO’s infrastructure compliance plans filed July 1, 2008.

The real-time monitoring reporting described in the 2013 edition of this report has not yet been implemented, as KCP&L and GMO work on sustainable and consistent method to leverage this approach. Development of that process remains ongoing and is a possibility in future years.

Distribution System Summary

KCP&L and GMO are aligned with the Overhead and Underground schedule set forth in the MoIR. Corrective action is taken immediately when conditions discovered during the course of inspections are identified as critical to safety or service reliability. Corrective work on conditions not rising to that critical threshold are bundled with future work—focusing on the urgency of improving performance of poorly performing feeders and laterals. No corrective action is taken when inspection reports are for information purposes only. Corrective work is also completed within the normal course of construction work.

In 2013, all KCP&L and GMO streetlights (including wood poles) were inspected concurrently with the Overhead Inspection Program and corrective action completed as required. This work satisfied the Patrol and Detailed Street Light Inspection requirements. Additionally in 2013, Intrusive Wood Pole Inspections were not scheduled in the KCP&L MO and GMO areas because the inspection cycle was moved ahead of schedule in 2012. All of the poles identified as “reinforceable rejects” were reinforced in 2013. Work started on replacement of non-reinforceable rejects and is planned to be completed on a pace to keep up with the continuing inspections.

KCP&L Area Inspections

All Overhead Patrol and Overhead Detailed Equipment inspections in the KCP&L service area were completed ahead of the required cycle prior to 2013. KCP&L began the second 4-year patrol cycle in 2013 as set forth in the MoIR. In 2012, KCP&L completed the first 4-year patrol cycle and 8-year detailed cycle of the Below Grade Manholes and Vault Inspections. Future inspections are aligned with the MoIR schedule. There were no Intrusive Wood Pole inspections scheduled for KCP&L's service areas in 2013. The inspection schedule in 2009 and 2011 allowed KCP&L to get ahead of the pace needed to achieve the 12-year cycle set forth in the MoIR.

Table 1: KCP&L Inspection Corrective Action Inspections

Table 1: KCP&L Inspection Corrective Action Inspections							
KCP&L MO Distribution				Completed Through December 2013			
System Class	Inspection Type	Facility Type	Units	Inspections Scheduled (Annual Plan)	Inspections Completed	Inspections Completed Prior to 2013 (Ahead of Cycle Plan)	Inspections Pending Outside of Plan
Distribution	Patrol	Overhead Circuits Structures & Equipment ¹	Structures	57,380	33,166 ²	179,560	0
		Pad-mounted Equipment	Equipment Locations	0	0	15,555	0
		Underground Structures and Equipment	Structure Locations	0	0	3,603	0
	Detail	Overhead Circuits Structures & Equipment	Structures	0	33,395	184,898	0
		Pad-mounted Equipment	Equipment Locations	0	0	15,555	0
		Underground Structures and Equipment	Structure Locations	0	15	3,603	0
	Intrusive	Wood Poles	Poles	0	0	107,505	0

¹ Inclusive of conductors, transformers, reclosers, regulators, capacitors, switching/protective devices as required under the MoIR.

² Work not completed due to scheduling issues

GMO Area Inspections

All Overhead Patrol and Overhead Detailed Equipment inspections in the GMO service area were completed ahead of the required cycle prior to 2013. In 2013, GMO started the 2nd 4-year patrol cycle. The 8-year detailed cycle for the Below Grade Manholes and Vault Inspections were not completed. A schedule change was put in place to complete by the end of 2015. Future inspections will be aligned with the MoIR schedule. There were no intrusive wood pole inspections scheduled for GMO service areas in 2013. The inspection schedule in 2012 allowed GMO to get ahead of the rate needed to achieve the 12-year cycle set forth in the MoIR.

Table 2: GMO Inspection Corrective Action Inspections

GMO Distribution							
GMO Distribution					Completed Through December 2013		
System Class	Inspection Type	Facility Type	Units	Inspections Scheduled (Annual Plan)	Inspections Completed	Inspections Completed Prior to 2013 (Ahead of Cycle Plan)	Inspections Pending Outside of Plan
Distribution	Patrol	Overhead Circuits, Structures, Equipment and Street Lights	Structures	57,380	42,082 ³	291,959	0
		Pad Mounted Equipment	Pads	0	6,618	78,248	0
		Underground Structures and Equipment	Structures	0	0	589	0
	Detailed	Overhead Structures, Circuits, Equipment and Street Lights	Structures	0	0	291,959	0
		Padmount Equipment	Pads	0	0	78,248	0
		Underground Structures and Equipment	Structures	0	115	589	0
	Intrusive	Wood Poles	Poles	0	0	54,680	0

³ Work not completed due to scheduling issues

Table 3: Combined Distribution Equipment Rating Summary

System Class	Inspection Type	Facility Type	Units	Immediate Repair or Next Day	Bundled for Future Work	Corrective Action not Required
Distribution	Detail	Overhead Circuits Structures & Equipment ^a	Structures	0 (0.00%)	45,010 (37.68%)	119,453 (62.32%)
		Pad-mounted Equipment	Equipment Locations	0 (0.00%)	14,087 (77.93%)	3,989 (22.07%)
		Underground Structures and Equipment	Structure Locations	0 (0.00%)	126 (93.33%)	9 (6.67%)
	Intrusive	Wood Poles	Poles	0 (0.00%)	366 (89.27%)	44 (10.73%)

^a Inclusive of conductors, transformers, reclosers, regulators, capacitors, switching/protective devices as required under the MoIR.

Table 4: Combined Distribution Corrective Action Summary

System Class	Inspection Type	Facility Type	Component	CA Scheduled in 2013	CA Completed in 2013	CA Planned in 2014	CA Planned after 2014 ⁴
Distribution	Patrol and Detailed Patrol	Overhead Circuits Structures & Equipment, Street Lights	Structures	4,350	5,468	6,000	7,000
		Pad-mounted Equipment	Pads	522	702	350	400
		Underground Structures and Equipment	Structures	80	80	80	191
	Intrusive	Wood Poles	Poles	950	934 ⁵	900	950

Corrective Actions Completed: The number of corrective actions completed on Worst Performing Circuits and is inclusive of corrective efforts such as: infrared inspections of splices, ground wire repairs, riser conduit repairs, arrester replacements, and, additionally, critical pole and cross arm replacements.

⁴ CA Planned after 2014 reflects the number of Corrective Actions planned on an annual basis through 2020.

⁵ Work not completed due to scheduling issues expected to be completed by the second quarter of 2014

Transmission System Summary

All KCP&L and GMO transmission lines are inspected annually by Aerial and Ground Patrol, as was the case in spring 2013. This schedule is more vigorous than that required under the MoIR. As shown in Tables 9 & 10, there were 221 combined corrective actions, based on patrols, completed in 2013. There are 81 combined corrective actions scheduled for 2014 completion.

A limited number of Detailed and Intrusive inspections were completed on transmission lines in the KCP&L service area. As shown in Table 5, in 2013, 23 poles were inspected, with 2 found as requiring corrective action. No detailed and intrusive inspections were performed in the GMO service area. As shown in Tables 9 & 10, there were 73 corrective actions, for the combined KCP&L GMO service areas scheduled for 2013 and 59 of those were completed in 2013. There are 24 corrective actions scheduled for 2014.

Table 5: KCP&L Transmission Corrective Action and Equipment Conditions							
KCP&L Transmission				Completed Through December 2013			
System Class	Inspection Type	Facility Type	Units	Inspections Planned for 2013	Inspections Completed During 2013	Inspections Completed Prior to 2013 (Ahead of Plan)	Inspections Pending in 2013 Outside of Plan
Transmission	Aerial and Ground Patrol ^a	Overhead Circuits Structures & Equipment	Structures	7,316	7,316	0	0
		Underground Structures and Equipment	Structures	34	34	0	0
	Detail and Intrusive	Wood/Steel Poles	Poles	0	23	0	0

^aAerial patrols of the transmission system are completed annually.

Table 6: GMO Transmission Corrective Action and Equipment Conditions

GMO Transmission				Completed Through December 2013			
System Class	Inspection Type	Facility Type	Units	Inspections Planned for 2013	Inspections Completed During 2013	Inspections Completed Prior to 2013 (Ahead of Plan)	Inspections Pending in 2013 Outside of Plan
Transmission	Aerial and Ground Patrol ^a	Overhead Circuits Structures & Equipment	Structures	14,773	14,773	0	0
		Underground Structures and Equipment	Structures	1	1	0	0
	Detail and Intrusive	Wood/Steel Poles	Poles	0	0	0	0

^aAerial and ground patrols of the transmission system are completed annually

Table 7: KCP&L Transmission Equipment Condition Rating Summary

System Class	Inspection Type	Facility Type	Component	Repairs Completed Within 12-Months	Schedule for Repair Within 12 to 36 Months	Corrective Action Not Required
Transmission	(Aerial and Ground Patrol)	Overhead	Poles, Switches.	7 (0.10%)	116 (1.59%)	7,193 (98.32%)
		Underground Structures	Manholes.	-	-	34 (100%)
Transmission	Detail and Intrusive	Poles and Structures - Wood/Steel	Poles	2 (8.70%)	0 (0.00%)	21 (91.30%)

Table 8: GMO Transmission Equipment Condition Rating Summary						
System Class	Inspection Type	Facility Type	Component	Repairs Completed Within 12-Months	Schedule for Repair Within 12 to 36 Months	Corrective Action Not Required
Transmission	(Aerial and Ground Patrol)	Overhead	Poles, Switches.	5 (0.03%)	74 (0.50%)	14,694 (99.47%)
		Underground Structures	Manholes.	0	0	1 100%
Transmission	Detail and Intrusive	Poles and Structures - Wood/Steel	Poles	0 (0.00%)	0 (0.00%)	0 (0.00%)

Table 9: KCP&L Transmission Corrective Action (CA) Summary							
System Class	Inspection Type	Facility Type	Component	CA Planned in 2013	CA Completed in 2013	CA Planned in 2014	CA Planned after 2014
Transmission	(Aerial and Ground Patrol)	Overhead Structures & Equipment	Poles, Switches	7	113	41	41
Transmission	(Aerial and Ground Patrol)	Underground Structures and Equipment	Manhole	0	0	0	0
Transmission	Detail and Intrusive	Poles and Structures - Wood/Steel	Poles	59	45	14	30

Table 10: GMO Transmission Corrective Action (CA) Summary							
System Class	Inspection Type	Facility Type	Component	CA Planned in 2013	CA Completed in 2013	CA Planned in 2014	CA Planned after 2014
Transmission	(Aerial and Ground Patrol)	Overhead Structures & Equipment	Poles, Switches	5	108	40	0
Transmission	(Aerial and Ground Patrol)	Underground Structures and Equipment	Manhole	0	0	0	0
Transmission	Detail and Intrusive	Poles and Structures - Wood/Steel	Poles (treated or replaced)	14	14	10	11

VERIFICATION