

William P. Herdegen Vice President, T&D Operations

July 1, 2009

Ms. Colleen M. Dale Secretary and Chief Regulatory Law Judge Missouri Public Service Commission 200 Madison Street, Suite 100 P.O. Box 360 Jefferson City, MO 65102

Re: Annual Infrastructure Standards Compliance Report

(4 CSR 240-23.020) Case No. EO-2009-0007

Dear Ms. Dale:

Pursuant to 4 CSR 240-23.020(3)(C), attached please find the annual report of compliance of Kansas City Power & Light Company for required inspections and recordkeeping under the rule.

Please contact me should you have any questions or need any additional information at (816) 556-2407.

Sincerely,

Willing Herby II

attachment

KCP&L 2008 Annual Infrastructure Compliance Report Pursuant to 4 CSR 240-23.020 Case No. EO-2009-0007

KCP&L Greater Missouri Operations Company 2008 Annual Infrastructure Compliance Report Pursuant to 4 CSR 240-23.020 Case No. EO-2008-0412

Infrastructure Inspection and Maintenance Program

July 1, 2009

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Section 1 – Introduction and Summary

Kansas City Power & Light Company, Inc. ("KCP&L") and KCP&L Greater Missouri Operations Company, Inc. ("GMO"), submit their 2008 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, 2008, through December 31, 2008, incorporating by reference KCP&L and GMO's infrastructure compliance plans filed July 1, 2008.

Distribution System Summary:

KCP&L's operation and maintenance of its distribution system is influenced by KCP&L's Comprehensive Energy Plan ("CEP"), MPSC Docket No. EO-2005-0329. As reflected in KCP&L's CEP quarterly reports to staff, the distribution system inventory and condition assessment programs are progressing on the overhead distribution system.

Requirements set forth under the CEP are more aggressive and meet the detailed inspection requirements of the MoIR. The CEP's inventory and inspection program is on an accelerated schedule, eclipsing time frames required under the MoIR. For example, the detailed overhead inspection of KCP&L's service area in Missouri was completed in 2008—structures totaling 48,013 were inspected through December 2008.

During the course of inspection, conditions identified as critical to safety or service reliability, corrective actions were taken immediately. Corrections to less critical conditions were usually bundled together and repaired in the normal course of business–improving performance of poor performing feeders and laterals.

KCP&L recognizes the CEP inventory and inspection program as a best practice and plans to incorporate the program into GMO's service territories beginning in 2009 with

completion in 2011. By incorporating the CEP program into GMO's territories, simple patrols required under the MoIR will not be required since the CEP requirements are more aggressive than the time frame required for detailed inspections under the MoIR and, therefore, will meet or exceed the schedule for simple inspection patrols.

In 2008, KCP&L and GMO streetlights were inspected annually and corrective actions completed within a month of reporting.

In the second half of 2008, KCP&L began a program to inventory and complete detailed inspections of underground manholes and vaults of the underground "network" and "looping" distribution circuits located in downtown Kansas City. KCP&L's schedule is aggressive and ahead of the schedule required under the MoIR. In the event conditions are identified as critical to safety or service reliability, corrective actions are taken immediately.

Intrusive inspections were not completed in the later half of 2008. Existing intrusive inspection programs for KCP&L and GMO were reviewed and plans drawn to use a twelve year inspection cycle beginning in 2009—in accordance with KCP&L and GMO's initial compliance plans filed with the Commission. A component of the prioritization criteria for inspection of assets is based on the time that has passed since the facilities' last inspection.

Transmission System Summary:

All transmission lines are inspected annually in the spring by aerial patrol, as was the case in spring 2008. This is more aggressive than the schedule required under the MoIR. Corrective actions based on the aerial patrol were completed in the second half of 2008 and identified in Tables 5 and 6.

Intrusive inspections were completed on transmission lines in GMO's Saint Joseph service area and any required corrective action scheduled. This inspection exceeds GMO's filed compliance plan and requirements of the MoIR.

Tracking and Data Management Summary:

KCP&L continues to work on an asset condition database and linking the companies' work management and AM/FM GIS programs. When completed, this will allow tracking and reporting of the MoIR inspection and condition correction activities.

	Table 1: KCP&L Corrective Action and Equipment Conditions								
	KCP&L	. Distribution		Completed Through December 2008					
System Class	Inspection Type	Facility Type	Units	Inspections Planned	Inspections Completed	Inspections Completed Prior to 2008 ahead of schedule	Inspections Not Completed as scheduled		
Patrol	Overhead Circuits Structures & Equipment ¹	Structures	0	0	NA	0			
	Pad- mounted Equipment	Equipment Locations	0	0	NA	0			
		Underground Structures and Equipment	Structure Locations	0	133	NA	0		
Dist		Overhead Circuits Structures & Equipment ¹	Structures	48,013	48,013	NA	0		
		Streetlight System	Structure	5,356	5,356	NA	0		
	Detail	Pad- mounted Equipment	Equipment Locations	0	0	NA	0		
		Underground Structures and Equipment	Structure Locations	192	192	NA	0		
	Intrusive	Wood Poles	Poles	0	0	NA	0		

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

Although planned patrol inspections were not scheduled in 2008 in the KCP&L service area, patrol inspections were conducted in the regular course of business during regular work assignments.

Detailed inspection of underground and pad-mounted equipment in the KCP&L service area will begin after the completion of detailed overhead and underground inspections in the GMO areas.

The contract for intrusive wood pole inspections was reviewed and updated after the acquisition in 2008. Inspections are scheduled to begin in 2009.

	Table 2: GMO Corrective Action and Equipment Conditions								
	GMO	Distribution		Completed Through December 2008					
System Class	Inspection Type	Facility Type	Units	Inspections Planned for 2008	Inspections Completed	Inspections Completed Prior to 2008— ahead of schedule	Inspections Not Completed in 2008 as scheduled		
Patrol	Overhead Circuits Structures & Equipment ¹	Structures	0	0	0	0			
	Patrol	Pad- mounted Equipment	Equipment Locations	0	0	0	0		
		Underground Structures and Equipment	Structure Locations	0	0	0	0		
Dist		Overhead Circuits Structures & Equipment ¹	Structures	0	0	0	0		
		Streetlight System	Structures	24,729	24,729	0	0		
	Detail	Pad- mounted Equipment	Equipment Locations	0	0	0	0		
		Underground Structures and Equipment	Structure Locations	0	0	0	0		
	Intrusive	Wood Poles	Poles	0	0	0	0		

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

Although inspections were not completed in the GMO service areas in the last half of 2008, detailed overhead and underground inspections are scheduled to begin in 2009 and be completed in 2011–a time frame more aggressive than required under the MoIR for inspections.

Intrusive inspections in the GMO service areas were completed from 2001 to 2007. In light of the recent inspections, they are scheduled to start after completion of the detailed inspections in 2011 and then follow a twelve year cycle.

	Table 3: KCP&L Distribution Equipment Condition Rating Summary Through December 2008							
System Class	Inspection Type	Facility Type	Component	Immediate Repair	Next Day or ASAP	Scheduled for Future Repair	Scheduled Corrective Action Not Required	
Distribution	Detail	Overhead Circuits Structures & Equipment	Poles, Transformers, Capacitors, Regulators, Reclosers, Switches, Line Fuses, Arresters.	8 (.05%)	0	15,191 (97.4%)	406 (2.7%)	
		Pad- mounted Equipment Underground	Transformers, Capacitors, Switchgear. Manhole,	NA	NA	NA	NA	
		Structures and Equipment	Vaults, Transformers, Network Protectors, Switches, Cable and Joints, Cable Hangers	1 (.5%)	0 (0%)	21 (11%)	31 (16%)	
Distribution	Intrusive	Poles and Structures - Wood	Poles	NA	NA	NA	NA	

	Table 4: KCP&L Distribution Corrective Action (CA) Summary Through December 2008						
System Class	Inspection Type	Facility Type	Component	CA Planned in 2008	CA Completed in 2008	CA Planned in 2009	CA Planned after 2009
Distribution	Detail	Overhead Circuits Structures & Equipment	Poles, Transformers, Capacitors, Regulators, Reclosers, Switches, Line Fuses, Arresters	22,762	22,762 ⁽¹⁾	1,371 ⁽²⁾	4,114 ⁽³⁾
		Pad-mounted Equipment	Transformers, Capacitors, Switchgear.	0 (4)	0	0	0
		Underground Structures and Equipment	Manhole, Vaults, Transformers, Network Protectors, Switches, Cable and Joints, Cable Hangers	1	1	10	11
Distribution	Intrusive	Poles and Structures - Wood	Poles	0 (4)	0	0	0

Note 1: This number represents corrective actions completed on Worst Performing Circuits and includes minor corrective efforts such as: infrared inspections of splices, ground wire repairs, riser conduit repairs, arrester replacements, and, additionally, more critical pole and cross arm replacements. Many of the reported conditions were identified prior to the reporting period.

Note 2: This number represents reported conditions determined as not critical and considered minor. They will be corrected as resources are available.

Note 3: This number represents conditions found during prior inspections and identified for corrective action. A reduction in the number of items identified for corrective action is planned and will be reduced by the start of required inspections in 2011.

Note 4: Inspections were not completed for these facilities so no items are listed for corrective action in the database.

Table 5: KCP&L Transmission Corrective Action and Equipment Conditions

	KCP&L Transmission				Completed Through December 2008			
System Class	Inspection Type	Facility Type	Units	Inspections Planned for 2008	Inspections Completed During 2008	Inspections Completed Prior to 2008 (ahead of schedule)	Inspections Not Completed in 2008 (as scheduled)	
		Overhead Circuits Structures & Equipment	Structures	0	7,106	NA	0	
	Detail (Aerial Patrol)	Underground Structures and Equipment	Structures	0	30	NA	0	
	Intrusive	Wood Poles	Poles	25	25	NA ¹	0	

Note 1: Aerial patrols of the transmission system are completed annually in the spring.

Table 6: GMO Transmission Corrective Action and Equipment Conditions

	GMO T	ransmission		Completed Through December 2008			
System	Inspection			Inspections Planned	Inspections Completed During	Inspections Completed Prior to 2008 (ahead of	Inspections Not Completed in 2008 (as
Člass	Туре	Facility Type	Units	for 2008	2008	schedule)	scheduled)
		Overhead Circuits Structures & Equipment	Structures	13,393	13,393	NA	0
	Detail (Aerial Patrol)	Underground Structures and Equipment	Structures	NA	0	NA ¹	0
	Intrusive	Wood Poles	Poles	3,834	3,834	NA ¹	0

Note 1:Aerial patrols of the transmission system are completed annually in the spring.

Intrusive inspections were completed for GMO's Saint Joseph service area in the latter half of 2008. KCP&L plans to do intrusive inspections on 8.3% of the transmission system each year going forward.

	Table 7: K	(CP&L Transm	ission Equipr	ment Conditi	on Rating	Summary	
System Class	Inspection Type	Facility Type	Component	Immediate Repair to one year.	Next Day or ASAP	Scheduled for Future Repair- 12 Mo to 3 yrs.	Scheduled Corrective Action Not Required
Transmission	Detail (Aerial)	Overhead	Poles, Switches.	0	6 ¹	77	195
		Underground Structures	Manholes.	0	0	0	0
Transmission	Intrusive	Poles and Structures -	Poles	•	0		
		Wood		0	Ü	0	0

Note 1: Transmission records do not differentiate between immediate repairs and ASAP. All Repairs were completed ASAP.

	Table 8: GMO Transmission Equipment Condition Rating Summary								
System Class	Inspection Type	Facility Type	Component	Immediate Repair to one year.	Next Day or ASAP	Schedule for Future Repair	Scheduled Corrective Action Not Required		
Transmission	Detail (Aerial)	Overhead	Poles, Switches.	0	29	288	87		
		Underground Structures	Manholes.	0	0	0	0		
Transmission	Intrusive	Poles and Structures -	Poles						
		Wood		0	02 (.1%)	40 (1%)	0		

	Table 9: KCP&L Transmission Corrective Action (CA) Summary							
System Class	Inspection Type	Facility Type	Component	CA Planned in 2008	CA Completed in 2008	CA Planned in 2009	CA Planned after 2009	
Transmission	Detail	Overhead Structures & Equipment	Poles, Switches	86	86	19	173	
Transmission Transmission	Detail Intrusive	Underground Structures and Equipment	Manhole	0	0	1	1	
Transmission Transmission	Detail Intrusive	Poles and Structures - Wood	Poles	25	25	592	6514	

	Table 10: GMO Transmission Corrective Action (CA) Summary								
System	Inspection	Facility Type	Component	CA	CA	CA	CA		
Class	Type			Planned	Completed	Planned	Planned		
				in 2008	in 2008	in 2009	after		
							2009		
Transmission	Detail	Overhead	Poles,	47	47	30	327		
		Structures &	Switches						
		Equipment							
		Underground	Manhole	0	0	0	0		
Transmission	Detail	Structures							
Transmission	Intrusive	and							
		Equipment							
Transmission	Detail	Poles and	Poles	3,834	3,834	1,130	13,571		
Transmission	Intrusive	Structures -	(treated or						
		Wood	replaced)						

Note: Under the Intrusive and Detailed inspections, all structures in the system will be treated or replaced.

BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

4 CSR 240-23.020 Electrical Corporation Infrastructure Standards) KCP&L EO-2009-0007) KCP&L GMO EO-2008-0412)
<u>VERIF</u>	<u>ICATION</u>
State of Missouri)) ss
County of Jackson)
	on Operations, and that the facts above set
	William P. Herdegen, III Kansas City Power & Light Co., Inc.
Subscribed and affirmed before me	this 30 th day of June, 2009. Notary Public
Ja Mo	"NOTARY SEAL " ole A. Wehry, Notary Public ckson County, State of Missouri Commission Expires 2/4/2011 ommission Number 07391200