



UGI Utilities, Inc.  
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November 9, 2011

**VIA EXPRESS MAIL**

James J. McNulty, Secretary  
Pennsylvania Public Utility Commission  
Commonwealth Keystone Building  
400 North Street  
Harrisburg, PA 17120

**RECEIVED**

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**PA PUBLIC UTILITY COMMISSION  
SECRETARY'S BUREAU**

**Re: Inspection, Maintenance, Repair and Replacement Standards  
For Electric Distribution Companies, Docket No. M-2009-2094773**

**First Biannual Filing of UGI Utilities, Inc. - Electric Division  
pursuant to 52 Pa. Code §57.198**

Dear Secretary McNulty:

Enclosed for filing, please find an original and three copies of UGI Utilities, Inc. – Electric Division’s second biannual plan for the inspection, maintenance, repair and replacement of facilities. This filing is being made pursuant to the provisions of 52 Pa. Code §57.198.

Should you have any questions concerning this filing, please feel free to contact me.

Very truly yours,

Mark C. Morrow

Counsel for UGI Utilities, Inc. –  
Electric Division

**Biennial Inspection, Maintenance, Repair and Replacement Plan  
of UGI Utilities, Inc. – Electric Division  
For the period of January 1, 2013 – December 31, 2014**

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PA PUBLIC UTILITY COMMISSION  
SECRETARY'S BUREAU

**Submitted by:**

**Mark C. Morrow  
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**Counsel for:  
UGI Utilities, Inc. –  
Electric Division**

Section 57.198(n)(1). Vegetation Management. The minimum inspection and treatment cycle for vegetation management shall be between 4 - 8 years for overhead distribution facilities. An EDC shall submit a condition based plan for vegetation management for its overhead distribution system facilities explaining its treatment cycle.

Vegetation Management Line Inspection

UGI Utilities, Inc. (UGI) has forty-two distribution circuits on its system. The total miles of overhead primary line on these circuits is approximately 1096.5 miles. The circuits are all located in Luzerne and Wyoming Counties in Pennsylvania.

UGI will perform a vegetation management inspection on all its primary overhead distribution facilities every two years in conjunction with its distribution overhead line inspection. Approximately half the circuit mileage will be inspected each year. The purpose of the vegetation management inspection is to assess the condition of vegetation on and off the lines' right of way to identify situations that may pose a threat to reliability of service or damage the overhead distribution facilities. The inspection schedule for 2013 and 2014 is shown below:

	Feeder	Vegetation Management Line Inspection Planned	
		<i>1096.5 circuit miles</i>	
		2013	2014
<b>UGI Utilities Inc</b> <i>1096.5 circuit miles</i>	Courtdale 8000	0	36.93
	Courtdale 8002	0	12.09
	Courtdale 8003	0	5.52
	Dallas 350	0	11.54
	Dallas 1930	0	5.95
	Dallas 1954	0	4.29
	Glenview 370	0	5.88
	Glenview 372	0	18.19
	Glenview 8004	0	47.98
	Hunlock 420	133.87	0
	Hunlock 421	40.24	0
	Huntsville 240	0	24.15
	Huntsville 242	0	54.29
	Huntsville 244	0	70.95
	Kingston 315	0	11.23
	Kingston 1215	0	3.81
	Kingston 2530	0	9.12
	Kingston 2555	0	2.87
	Koonsville 7536	34.70	0

	Koonsville 7540	156.07	0
	Huntington Mills 8	40.79	0
	Kunkle 500	0	32.11
	Kunkle 510	0	35.47
	Kunkle 520	0	63.73
	Lincoln 602	13.90	0
	Lincoln 603	25.86	0
	Lincoln 604	15.45	0
	Lincoln 606	14.54	0
	Plymouth 10	5.78	0
	Plymouth 23	10.48	0
	Plymouth 45	16.67	0
	Plymouth 67	5.68	0
	Plymouth 80	40.61	0
	Swoyersville 116	0	12.81
	Swoyersville 147	0	21.05
	Swoyersville 216	0	5.97
	Swoyersville 237	0	5.53
	Swoyersville 247	0	19.10
	Swoyersville 347	0	1.94
	Hanover 70	12.45	0
	Hanover 75	1.71	0
	Hanover 8005	5.20	0

Vegetation Management Treatment Plan

UGI will annually form a condition based vegetation management treatment plan. This plan will be based largely on the results of its vegetation management line inspection. Other factors utilized in conjunction with the vegetation management line inspection results that will be considered are the number of tree caused interruptions on that feeder in the past year and the established maintenance cycle time for that feeder.

For 2013 and 2014, UGI plans to perform vegetation maintenance trimming work on 150 – 250 miles of distribution overhead lines each year. This work involves pruning or removal of approximately 35,000 – 42,000 trees on its system. UGI plans to chemically treat 50 - 120 miles of distribution overhead lines each year. This work involves the herbicide application of approximately 100 – 300 acres of distribution overhead line right of ways.

Vegetation Treatment Cycle

UGI has established expected vegetation line treatment cycle times for its distribution circuits. The cycle times result from the operation of the vegetation management treatment plan described above. The treatment cycles range from four to eight years. The expected treatment cycles for each of UGI's forty-two distribution circuits are shown in the table below:

	FEEDER	EXPECTED TREATMENT CYCLE in years
1	Courtdale 8000	6
2	Courtdale 8002	5
3	Courtdale 8003	6
4	Dallas 350	7
5	Dallas 1930	7
6	Dallas 1954	7
7	Glenview 370	6
8	Glenview 372	6
9	Glenview 8004	6
10	Hunlock 420	7
11	Hunlock 421	7
12	Huntsville 240	7
13	Huntsville 242	7
14	Huntsville 244	7
15	Kingston 315	4
16	Kingston 1215	4
17	Kingston 2530	4
18	Kingston 2555	4
19	Koonsville 7536	8
20	Koonsville 7540	8
21	Huntington Mills 8	8
22	Kunkle 500	7
23	Kunkle 510	8
24	Kunkle 520	7
25	<u>Lincoln St 602</u>	5

26	Lincoln St 603	5
27	Lincoln St 604	5
28	Lincoln St 606	5
29	Plymouth 10	5
30	Plymouth 23	5
31	Plymouth 45	5
32	Plymouth 67	5
33	Plymouth 80	7
34	Swoyersville 116	6
35	Swoyersville 147	6
36	Swoyersville 216	5
37	Swoyersville 237	6
38	Swoyersville 247	6
39	Swoyersville 347	6
40	Hanover 70	6
41	Hanover 75	6
42	Hanover 8005	6

Justification

This inspection plan complies with the Docket No. M-2009-2094773 of the Pennsylvania Public Utility Commission. The time frames fall within the allotted time frame as outlined by the Pennsylvania Public Utility Commission and no waiver is being requested.

**Section 57.198(n) (2). Pole Inspections.** Distribution poles shall be inspected at least as often as every 10-12 years except for the new southern yellow pine creosoted utility poles which shall be initially inspected within 25 years, then within 12 years annually after the initial inspection. Pole inspection must include:

- (i) Drill tests at and below ground level.
- (ii) A shell test.
- (iii) Visual inspection for holes or evidence of insect infestation.
- (iv) Visual inspection for evidence of unauthorized backfilling or excavation near the pole.
- (v) Visual inspection for signs of lightning strikes.
- (vi) A load calculation.

#### Program Description

UGI will inspect all distribution poles on a 10-12 year cycle. The purpose of these inspections is to maintain system reliability and safety by ensuring that all poles meet or exceed minimum strength requirements to support their attached facilities, that the poles and associated attachments are free from damage, and that no environmental conditions exist that may compromise the poles and associated attachments. A maintenance and treatment program done in conjunction with the distribution pole inspections aims to extend the useful life of the pole.

All poles will be inspected for decay, damage, illegal attachments, and potential hazards associated with electrical equipment. Poles suspected of having internal decay will be inspected by the sound and bore method. Poles manufactured greater than 20 years before the inspection date will be inspected below ground level whenever possible. The remaining strength of the pole will be calculated using data gathered from the inspection. If the remaining strength of the pole is found to be deficient, the pole will be classified as a reject pole (a pole that fails the groundline inspection but does not meet the definition found in Section 57.198(n)(3) of the Pennsylvania Code, Title 52), a re-enforceable reject pole (a pole that can be restored to an acceptable strength when re-enforced with a steel truss or similar device), or a danger pole (danger poles meet the definition found in Section 57.198(n)(3) of the Pennsylvania Code, Title 52).

Further details can be found in UGI's T&D Engineering Instruction Manual, Section 10.8.

Inspection Plan

UGI Utilities, Inc.	Area	Pole Inspections Planned (Number of Poles)	
		2013	2014
Approximately 45,000 distribution poles system wide	All or portions of Shickshinny Borough, Union Township, and Ross Township.	3750	0
	All or portions of Fairmont Township and Huntington Township.	0	3750

Justification

UGI's Pole Inspection Program meets the requirements of 52 Pa Code Chapter 57 Section 57.198 (n) (2). No waiver is being requested.

**Section 57.198(n)(3). Pole inspection failure.** If a pole fails the groundline inspection and shows dangerous conditions that are an immediate risk to public or employee safety or conditions affecting the integrity of the circuit, the pole shall be replaced within 30 days of the date of inspection.

Corrective Maintenance

UGI will replace all poles that meet the definition found in Section 57.198(n)(3) within 30 days of the date of inspection. Recent history has shown that only .03% of all UGI poles inspected (about one pole per year on a 12 year cycle) have met this definition. As such, UGI maintains adequate inventory and manpower to replace these poles and associated materials within 30 days of the date of inspection.

Poles requiring corrective maintenance but not meeting the definition found in 57.198(n)(3) will be addressed in a timely manner, usually within 6 months of the date found.

Justification

UGI's Corrective Maintenance Program meets the requirements of 52 Pa Code Chapter 57 Section 57.198 (n)(3). No waiver is being requested.

**Section 57 198(n) (4) Distribution Overhead Line Inspections.** Distribution lines shall be inspected by ground patrol a minimum of once every 1-2 years. A visual inspection must include checking for:

- (i) Broken insulators.
- (ii) Conditions that may adversely affect operation of the overhead transformer.
- (iii) Other conditions that may adversely affect operation of the overhead distribution line.

#### Program Description

UGI will conduct inspections of its overhead distribution facilities by ground patrol every two years. The purpose of the inspection program is to verify that the overhead facilities are in a safe, operational, and reliable condition. The inspections will be performed by a qualified company representative. The overhead lines and equipment will be inspected for damage including broken insulators, leaks, and any other conditions which may adversely affect the distribution system. Inspection information will be documented and forwarded to the appropriate engineering department when corrective action is required.

Further details can be found in UGI's T&D Engineering Instruction Manual, Section 02-02.

	Feeder	Overhead Line Inspections Plan (miles)	
		2013	2014
UGI Utilities Inc 42 Circuits (1096.5 circuit miles)	Courtdale 8000	0	36.93
	Courtdale 8002	0	12.09
	Courtdale 8003	0	5.52
	Dallas 350	0	11.54
	Dallas 1930	0	5.95
	Dallas 1954	0	4.29
	Glenview 370	0	5.88
	Glenview 372	0	18.19
	Glenview 8004	0	47.98
	Hunlock 420	133.87	0
	Hunlock 421	40.24	0
	Huntsville 240	0	24.15
	Huntsville 242	0	54.29
	Huntsville 244	0	70.95
	Kingston 315	0	11.23
	Kingston 1215	0	3.81
	Kingston 2530	0	9.12
	Kingston 2555	0	2.87

	Koonsville 7536	34.70	0
	Koonsville 7540	156.07	0
	Huntington Mills 8	40.79	0
	Kunkle 500	0	32.11
	Kunkle 510	0	35.47
	Kunkle 520	0	63.73
	Lincoln 602	13.90	0
	Lincoln 603	25.86	0
	Lincoln 604	15.45	0
	Lincoln 606	14.54	0
	Plymouth 10	5.78	0
	Plymouth 23	10.48	0
	Plymouth 45	16.67	0
	Plymouth 67	5.68	0
	Plymouth 80	40.61	0
	Swoyersville 116	0	12.81
	Swoyersville 147	0	21.05
	Swoyersville 216	0	5.97
	Swoyersville 237	0	5.53
	Swoyersville 247	0	19.10
	Swoyersville 347	0	1.94
	Hanover 70	12.45	0
	Hanover 75	1.71	0
	Hanover 8005	5.20	0

### Justification

UGI's Distribution Overhead Line Inspection Plan meets the requirements of 52 Pa Code Chapter 57 Section 57.198 (n) (4). No waiver is being requested.

**Section 57 198(n) (5). Inspection failure.** If critical maintenance problems are found that affect the integrity of the circuits, they shall be repaired or replaced no later than 30 days from discovery.

Corrective Maintenance

Any deficiencies on UGI's overhead distribution system discovered during performance of its Distribution Overhead Line Inspections will be addressed based on the severity of the situation. Those items that may affect the integrity of circuits will be repaired or replaced within 30 days of discovery. Safety issues will be addressed immediately.

UGI maintains adequate inventory and manpower to take corrective actions as indicated above.

Justification

UGI's Distribution Overhead Line Inspection Plan meets the requirements of 52 Pa Code Chapter 57 Section 57.198 (n) (5). No waiver is being requested.

**Section 57 198(n) (6). Distribution Transformer Inspections.** Overhead distribution transformers shall be visually inspected as part of the distribution line inspection every 1-2 years. Above ground padmount transformers shall be inspected at least as often as every 5 years and below ground transformers shall be inspected at least as often as every 8 years. An inspection must include checking for:

- (i) Rust, dents or other evidence of contact
- (ii) Leaking oil
- (iii) Installations of fences or shrubbery that could adversely affect access to and operation of the transformer
- (iv) Unauthorized excavation or changes in grade near the transformer

#### Program Description

UGI will inspect all of its overhead distribution transformers on a two year cycle as part of the overhead distribution line inspection program.

UGI will inspect all of its padmount and below ground transformers on a five year cycle. The purpose of the inspection is to verify that all transformers are in a safe, operational, and reliable condition. The inspection will be performed by a qualified company representative. The inspector will look for rust, dents and other evidence of contact, leaking oil, installations of fences and shrubbery that could adversely affect access to and operation of the transformer, unauthorized excavations or changes in grade near the transformer, and any other conditions which may affect the safety, access to or operation of the transformer.

Inspection information will be documented. Conditions that require follow up will be forwarded to the engineering department for corrective action. Safety related issues will be corrected immediately. Other reported problems will be handled based on the severity of the situation.

UGI maintains adequate inventory and manpower to take corrective action as indicated above.

Further details can be found in UGI' T&D Utilities Engineering Instruction Manual, Section 02-08.

Inspection Plan

	Feeder	Transformer Inspections Planned (number)	
		2013	2014
<b>UGI Utilities Inc</b> <i>11,019 Overhead Type</i> <i>2 Year Cycle</i>	Courtdale 8000	0	385
	Courtdale 8002	0	153
	Courtdale 8003	0	75
	Dallas 350	0	161
	Dallas 1930	0	55
	Dallas 1954	0	57
	Glenview 370	0	65
	Glenview 372	0	217
	Glenview 8004	0	501
	Hunlock 420	1331	0
	Hunlock 421	371	0
	Huntsville 240	0	282
	Huntsville 242	0	510
	Huntsville 244	0	681
	Kingston 315	0	187
	Kingston 1215	0	59
	Kingston 2530	0	114
	Kingston 2555	0	73
	Koonsville 7536	283	0
	Koonsville 7540	1617	0
	Kunkle 500	0	284
	Kunkle 510	0	300
	Kunkle 520	0	570
	Lincoln 602	150	0
	Lincoln 603	242	0
	Lincoln 604	198	0
	Lincoln 606	155	0
	Plymouth 10	77	0
	Plymouth 23	132	0
	Plymouth 45	203	0
	Plymouth 67	59	0
	Plymouth 80	382	0
	Swoyersville 116	0	193
	Swoyersville 147	0	241
	Swoyersville 216	0	76

	Swoyersville 237	0	63
	Swoyersville 247	0	209
	Swoyersville 347	0	85
	Hanover 70	140	0
	Hanover 75	8	0
	Hanover 8005	74	0

	Feeder	Transformer Inspections Plan (number)	
		2013	2014
<b>UGI Utilities Inc</b> <i>316 Padmount Type</i> <i>66 Below Ground Type</i> <i>5 Year Cycle</i>	Courtdale 8000	3	11
	Courtdale 8002	2	0
	Courtdale 8003	0	0
	Dallas 350	0	0
	Dallas 1930	6	15
	Dallas 1954	2	2
	Glenview 370	0	0
	Glenview 372	4	8
	Glenview 8004	23	45
	Hunlock 420	0	1
	Hunlock 421	10	0
	Huntsville 240	45	19
	Huntsville 242	6	0
	Huntsville 244	0	0
	Kingston 315	0	0
	Kingston 1215	22	0
	Kingston 2530	0	0
	Kingston 2555	0	0
	Koonsville 7536	0	0
	Koonsville 7540	0	4
	Kunkle 500	0	3
	Kunkle 510	0	0
	Kunkle 520	2	2
	Lincoln 602	0	12
	Lincoln 603	0	5
	Lincoln 604	9	13
	Lincoln 606	0	0
	Plymouth 10	22	0
	Plymouth 23	23	5
	Plymouth 45	0	0

	Plymouth 67	0	0
	Plymouth 80	7	15
	Swoyersville 116	0	0
	Swoyersville 147	0	5
	Swoyersville 216	0	0
	Swoyersville 237	0	0
	Swoyersville 247	1	3
	Swoyersville 347	0	3
	Hanover 70	9	2
	Hanover 75	0	13
	Hanover 8005	0	0

Justification

UGI's Distribution Transformer Inspection Plan meets the requirements of 52 Pa Code Chapter 57 Section 57.198 (n) (6). No waiver is being requested.

**Section 57.198(n) (7). Recloser Inspections.** Three phase reclosers shall be inspected on a cycle of 8 years or less. Single phase reclosers shall be inspected as part of the EDC's distribution line inspection plan.

#### Program Description

UGI will inspect all of its three phase reclosers on a one year cycle or less. UGI will inspect all of its single phase reclosers on a two year cycle as part of the distribution line inspection program.

The purpose of performing the inspections is to ensure continued safe and reliable operation of the reclosers. The inspections will be conducted by a qualified company representative. The inspection will check for physical damage, oil leaks, and any other conditions that could adversely affect the safe and reliable operation of the recloser.

Inspection information will be documented. Conditions that require follow up will be forwarded to the engineering department for corrective action. Safety related issues will be corrected immediately. Other reported problems will be handled based on the severity of the situation.

Further details can be found in UGI's T&D Engineering Instruction Manual, Section 02-06.

#### Inspection Plan

	Type	Recloser Inspection Plan (number)	
		2013	2014
<b>UGI Utilities Inc.</b> <i>74 Three Phase</i> <i>144 Single Phase</i>	Three Phase 1 Yr Cycle	74	74
	Single Phase 2 Yr Cycle	83	61

#### Justification

UGI's Recloser Inspection Plan meets the requirements of 52 Pa Code Chapter 57 Section 57.198 (n) (7). No waiver is being requested.

**Section 57.198(n)(8). Substation Inspections.** Substation equipment, structures, and hardware shall be inspected on a cycle of 5 weeks or less.

#### Program Description

UGI will inspect all of its distribution substations on a cycle of 5 weeks or less. The inspections will be conducted by a qualified company representative. The inspector will walk through each substation noting any physical damage, unsafe conditions, or potential problems with substation equipment, structures, and hardware. Substation fence integrity will be verified along with the posting of danger and no trespassing signs. A description of UGI's Substation Inspection Program can be found in UGI's T&D Engineering Instruction Manual, Sections 4-2-1 & 4-2-2.

The purpose of substation inspections is to ensure continued safe and reliable operation of the substations.

Inspection information will be documented. Conditions that require follow-up will be forwarded to the engineering department for corrective action. Safety related issues will be corrected immediately. Other reported problems will be handled based on the severity of the situation.

#### Inspection Plan

	Substation	Substation Inspections Plan (number)	
		2013	2014
UGI Utilities Inc. <i>Total Substations 13</i>			
	Courtdale 66/13	12	12
	Dallas 66/13	12	12
	Glenview 66/13	12	12
	Hanover 66/13	12	12
	Hunlock 66/13	12	12
	Huntington Mills 13/8	12	12
	Huntsville 66/13	12	12
	Kingston 66/13	12	12
	Koonsville66/13	12	12
	Kunkle66/13	12	12
	Lincoln 66/13	12	12
	Plymouth/Lance 66/13	12	12
Swoyersville 66/13	12	12	

#### Justification

UGI's Substation Inspection Plan meets the requirements of 52 Pa Code Chapter 57 Section 57.198 (n) (8). No waiver is being requested.

BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Inspection, Maintenance, Repair and :  
Replacement Standards For Electric : Docket No. M-2009-2094773  
Distribution Companies :

**CERTIFICATE OF SERVICE**

I hereby certify that I have, this 9th day of November, 2011, served a true and correct copy of the foregoing document in the manner and upon the persons listed below in accordance with requirements of 52 Pa. Code §1.54 (relating to service by a participant):

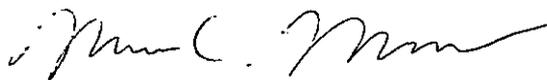
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Darren Gill, Electric Reliability Supervisor  
Pennsylvania Public Utility Commission  
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Mark C. Morrow

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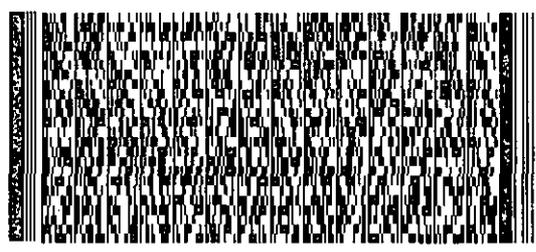
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