COLUMBIA GAS OF PENNSYLVANIA, INC.

MANAGEMENT EFFICIENCY INVESTIGATION

Evaluating the Implementation of Selected Recommendations from the 2013 Focused Management and Operations Audit Report

PREPARED BY THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION
BUREAU OF AUDITS
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I. INTRODUCTION

A. Background

In May 2012, the Management Audit Division (Audit Staff) of the Pennsylvania Public Utility Commission's (PUC or Commission) Bureau of Audits initiated a Focused Management and Operations Audit (Management Audit) of Columbia Gas of Pennsylvania, Inc. (CPA or Company). The Audit Staff subsequently completed its audit work and, in June 2013, issued a final report including 12 recommendations for improvement. CPA submitted its Implementation Plan on July 10, 2013, indicating acceptance of 11 recommendations and rejecting one recommendation. On August 15, 2013, at D-2012-2290672, the Commission made the audit report and Implementation Plan public and directed the Company to:

- Proceed with its July 10, 2013 Implementation Plan; and

- Submit progress reports on the implementation annually, by August 1, for the next three years.

Since July 2013, CPA has submitted three Implementation Plan updates as requested to ascertain the Company's progress in implementing the recommendations from the management audit report. Based on a review of these updates, the Audit Staff elected to conduct a Management Efficiency Investigation (MEI) of CPA's progress in the implementation of the 11 accepted original recommendations. Specific items of management effectiveness and operational efficiency may be investigated pursuant to Title 66 Pa. C.S. § 516(b).

B. Objective and Scope

The objective of this MEI was to review and evaluate the effectiveness of CPA's efforts to implement the recommendations contained in the Focused Management and Operations Audit Report released in August 2013. The scope of the evaluation encompassed the Company's efforts in implementing 11 prior management audit recommendations in the functional areas of:

- Financial Management
- Customer Service
- Gas Operations

In addition, the Audit Staff performed an updated review of the Emergency Preparedness functional area.

C. Approach

The PUC's Bureau of Audits Staff performed the MEI. Fieldwork began on October 3, 2016 and continued intermittently through December 2, 2016. The fact gathering process included:

- Interviews with Company personnel.

- Analysis of selected Company records, documents, reports, and other information for the period 2012 through November 2016.

II. SUMMARY OF MANAGEMENT EFFECTIVENESS AND OPERATIONAL EFFICIENCY

The Audit Staff found that CPA has effectively or substantially implemented seven of the eleven prior Management Audit recommendations reviewed and has taken some action on the remaining four recommendations. Among the more notable improvements achieved by the management of the Company are:

- A formal dividend policy has been developed.

- Beginning in 2014, all schedules have been completed fully and accurately in the PUC Annual Reports.

- CPA has completed the installation of Mobile Automated Meter Reading (MAMR) on virtually all of the Company's active residential meters which has significantly reduced the number of meters not read in six and twelve months.

- CPA is on track to meet the Commission's regulatory requirement to relocate inside meter sets by September 13, 2034.

- CPA has reduced its levels of residential gross write-offs and is comparable with the panel average of other Pennsylvania Natural Gas Distribution Companies (NGDCs).

- CPA has met priority pipe replacement levels consistent with its Long Term Infrastructure Improvement Plan.

- CPA has filled the vacancies identified in the 2013 Management Audit for the Field Operations, Construction, and Engineering departments.

While these accomplishments are commendable, the Audit Staff identified further improvement opportunities in certain areas. In particular, the Company needs to:

- Create a policy documenting the operations and maintenance (O&M) budgeting process.

- Establish Pennsylvania specific threshold levels or goals for measuring collection agency performance based on the gross collections as a percentage of amounts placed for collection in Pennsylvania, and if needed, replace any poor performing collection agencies.

- Continue to monitor overtime metrics established by NiSource to distribute overtime equitably.

- Continue to conduct periodic reviews of dispatch time performance to monitor the effectiveness of its vendor, ARCOS, and make modifications as needed to ensure emergency dispatches can be completed within 15 minutes.

Exhibit II-1 summarizes the 11 prior recommendations reviewed and the Audit Staff’s follow-up findings, conclusions, and recommendations.

COLUMBIA GAS OF PENNSYLVANIA, INC.
MANAGEMENT EFFICIENCY INVESTIGATION
SUMMARY OF JUNE 2013 MANAGEMENT AUDIT RECOMMENDATIONS AND STAFF'S FOLLOW-UP FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

Prior MA Recommendations	MEI Follow-up Findings And Conclusions	MEI Follow-up Recommendations
III. FINANCIAL MANAGEMENT		
Establish a formal dividend policy.	III-1 – A formal dividend policy has been developed.	None.
Create a formal policy that documents the Company's O&M budgeting process.	III-2 – A formal O&M budget policy governing the budget process has not been created.	Create a policy that documents the O&M budgeting process.
Fully and accurately complete all schedules in the PUC Annual Report.	III-3 – Beginning in 2014, all schedules have been completed fully and accurately in the PUC Annual Reports.	None.
IV. CUSTOMER SERVICE		
Complete implementation of mobile automated meter reading (MAMR) and enact additional measures as necessary to minimize the number of meters not read within six months and twelve months and that, at a minimum, customer supplied reads are acquired every six months.	IV-1 – CPA has completed the installation of MAMR on virtually all of the Company's active residential meters which has significantly reduced the number of meters not read in six and twelve months.	None.
Accelerate efforts to relocate inside meter sets or, at a minimum, the associated regulators outside the structure.	IV-2 – CPA is on track to meet the Commission's regulatory requirement to relocate inside meter sets by September 13, 2034.	None.
Strive to minimize write-offs of delinquent accounts receivable by exploring potential solutions to enhance collection efforts.	IV-3 – CPA has reduced its levels of residential gross write-offs and is comparable with the panel average of other Pennsylvania NGDCs.	None.

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SUMMARY OF JUNE 2013 MANAGEMENT AUDIT RECOMMENDATIONS AND STAFF'S FOLLOW-UP FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

Prior MA Recommendations	MEI Follow-up Findings And Conclusions	MEI Follow-up Recommendations
IV. CUSTOMER SERVICE (CONT.)		
Ensure that delinquent account collection agencies are achieving their performance goals, and as necessary, replace poor performing agencies with new collection agencies.	IV-4 – Corporate Services does not assess collection agency performance on a statewide basis.	Establish Pennsylvania specific threshold levels or goals for measuring collection agency performance that are based on the gross collections as a percentage of amounts placed for collection in Pennsylvania, and if needed, replace any poor performing collection agencies.
V. GAS OPERATIONS		
Strive to maintain the expedited replacement schedule of first generation pipe.	V-1 – CPA has met priority pipe replacement levels consistent with its Long Term Infrastructure Improvement Plan.	None.
Assess high levels of overtime by individual operations employees and adjust overtime practices, call out procedures, shift work, and/or stand by procedures as needed.	V-2 - CPA has implemented measures to monitor and effectively reduce individual overtime levels.	Continue to monitor overtime metrics established by NiSource to distribute overtime equitably.
Expedite hiring of vacant operations related positions and timely conduct a study to determine needed staffing in anticipation of expanded capital projects and field operations retirements.	V-3 - CPA has filled the vacancies identified in the 2013 Management Audit for the Field Operations, Construction, and Engineering departments.	None.

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SUMMARY OF JUNE 2013 MANAGEMENT AUDIT RECOMMENDATIONS AND STAFF'S FOLLOW-UP FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

Prior MA Recommendations	MEI Follow-up Findings And Conclusions	MEI Follow-up Recommendations
V. GAS OPERATIONS (CONT.)		
Improve dispatching methodologies to ensure that all emergency dispatches can be completed with 15 minutes of the emergency call receipt by implementing new or modifying existing procedures for call outs, stand by lists, shift work, and/or staffing levels.	V-4 – The Company implemented a new resource management system to assist with personnel scheduling and emergency order dispatching; however, the Company has yet to fully realize the expected improvements in dispatch time performance.	Continue to conduct periodic reviews of dispatch time performance to monitor the effectiveness of ARCOS and make modifications as needed to ensure emergency dispatches can be completed within 15 minutes.
VI. EMERGENCY PREPAREDNESS		
		None.

III. FINANCIAL MANAGEMENT

<u>Background</u> – The Focused Management and Operations Audit of Columbia Gas of Pennsylvania, Inc. (CPA or Company) conducted by the Management Audit Division (Audit Staff) of the Pennsylvania Public Utility Commission (PUC or Commission) and released on August 15, 2013, at D-2012-2290672, contained three recommendations within the Financial Management chapter. The Audit Staff rated the functional area as needing minor improvement. In this chapter, three prior recommendations and prior situations are reviewed and three follow-up findings and one recommendation are presented.

<u>Prior Recommendation</u> – Establish a formal dividend policy.

<u>Prior Situation</u> – CPA previously performed quarterly dividend analyses to determine if dividends should be paid to its parent, NiSource, Inc. (NiSource), or if earnings should have been retained to achieve an appropriate debt-to equity ratio. Although CPA's annual dividend payments to NiSource ranged widely between 5% and 74% of net income since 2009, there were no NiSource or CPA policies related to the payment of dividends from the regulated utility (i.e., CPA) to its parent corporation. Although CPA was using a large portion of its internally generated funds to finance its increasing investment in capital additions, the Audit Staff noted that the establishment of a formal dividend policy would set sound business parameters from which to base dividend payouts in the future.

<u>Follow-up Finding and Conclusion No. III-1</u> – A formal dividend policy has been developed.

A formal dividend policy was established and signed by CPA's President on July 28, 2013. The dividend policy details CPA's process for determining whether dividends should be paid to NiSource and ultimately its shareholders. On a quarterly basis, the Chief Financial Officer (CFO) of CPA will conduct an analysis that considers the following factors:

- The amount of the Company's total capitalization
- The amount of the Company's net rate base
- The proportion of debt to equity
- PUC precedent regarding capital structure
- Planned retirement of long term debt
- Planned issuances of long term debt
- Planned infusions of equity
- Available liquidity
- The Company's anticipated capital budget
- Cash from operations
- Planned/ongoing regulatory activity
- Other factors as appropriate

Upon completion of the analysis, the CFO will provide the President, Treasurer, and other Company personnel, with recommendations for approval regarding the dividend payment, if any, to NiSource. Subsequent to obtaining CPA management approval, the recommendation and supporting documents are submitted to CPA's Board of Directors for consideration and approval. All such dividend payments are made in accordance with applicable Pennsylvania law.

Shown below in Exhibit III-1 are the dividends paid as a percentage of net income for 2012 through September 2016. CPA made dividend payments in 2012 and 2013 but has not paid any dividends for the years 2014 through September 2016. The payments amounts were $3.0 million and $8.0 million or approximately 6% and 14% of net income respectively.

Exhibit III - 1
Columbia Gas of Pennsylvania, Inc.
Dividends Paid as a Percentage of Net Income
12 Months for Calendar Years 2012 through 2015 and
January 1 through September 30, 2016

Year	Dividends Paid	Net Income	Percentage of Net Income
2012	$ 3,000,000	$ 46,707,378	6%
2013	$ 8,000,000	$ 56,452,347	14%
2014	$ 0	$ 63,629,454	0%
2015	$ 0	$ 64,247,808	0%
September 2016	$ 0	$ 40,360,837	0%

Source: Data Request FM-5

<u>Follow-up Recommendation</u> – None.

<u>Prior Recommendation</u> - Create a formal policy that documents the Company's O&M budgeting process.

<u>Prior Situation</u> - CPA's affiliate, NiSource Corporate Services Company (Corporate Services), was responsible for maintaining the capital and operation and maintenance (O&M) budgets for the Company. Although Corporate Services maintained a Capital Allocation and Authorization Policy, which described the capital budgeting process for all NiSource Natural Gas Distribution Companies (NGDCs), a similar policy did not exist for the O&M budgeting process. The Capital Allocation and Authorization Policy described the capital budgeting process through the following sections:

- Definition and Overview
- Budget Types

- Planning and Management Process
- Budget Development and Allocation Process
- Reviews and Approvals
- Completed Project Evaluations
- Budget Variance Explanations

The Audit Staff recommended that, at a minimum, Corporate Services should create a documented O&M budgeting process similar to the Capital Allocation and Authorization Policy. Although CPA's O&M variances appeared to be reasonable since 2009, it was noted that the Company's O&M variance performance could change in the future.

Follow-up Finding and Conclusion No. III-2 – A formal O&M budget policy governing the budgeting process has not been created.

The Company, as noted in its most recent Implementation Plan Progress Report dated August 30, 2016, indicated that documentation governing an O&M budgeting process had been drafted, approved, and incorporated into its Financial Planning policies. However, the Audit Staff could not corroborate a standing policy as part of our fieldwork review.

In response to the Audit Staff data requests, the Company acknowledged that due to staffing changes since the prior Management Audit and inadequate communication during the management transition, that completion of the prior audit recommendation was incorrectly reported. CPA management has subsequently met with the NiSource Financial Planning and Analysis Group to initiate the development of a formal policy.

Similar sized utilities maintain documented O&M budgeting policies and procedures, along with their capital budgeting process, to maintain consistency in the budgeting and performance monitoring process. The Company should establish a policy for documenting the O&M budgeting process that is similar to the Capital budgeting policy.

Follow-up Recommendation – Create a policy that documents the O&M budgeting process.

Prior Recommendation - Fully and accurately complete all schedules in the PUC Annual Report.

Prior Situation - Under 66 Pa. C.S. § 504, the PUC may require any public utility to file periodic reports as the Commission may prescribe concerning any matters whatsoever about which the Commission is authorized to inquire, keep itself informed, or required to enforce. The Commission may also require a public utility to file a copy of any reports it must file with a Federal regulatory body. Accordingly, all NGDCs subject to the jurisdiction of the PUC are required to complete and file an Annual Report with the Commission.

The Audit Staff's review of CPA's Annual Reports revealed that not all of the submitted schedules had been accurately completed. For example, Schedule 600 of the Annual Report is the Classification of Customers, Units Sold and Operating Revenues by Tariff Schedule. The schedule was designed to show the number of customers, volumes sold, and operating revenues by tariff schedule for the calendar year being reported. Customers should be reported based on number of meters, plus number of unmetered accounts, except that where separate meter readings were added for billing purposes, one customer shall be counted for each group of meters so added. For the years 2007-2011, the Company reported the number of customers by tariff schedule for each customer class (i.e., residential, commercial and industrial), but did not report all of the respective volumes sold and related operating revenues. As a result, it was difficult to identify accurately the actual volumes sold and/or delivered and the related operating revenues for each customer class in the schedule. Although there were other schedules in the Annual Report, such as Schedule 505 Gas Account – Natural Gas, that identify total volumes delivered in the Company's system, Schedule 505 did not provide information such as volumes delivered and related operating revenues by customer class. CPA should have fully and accurately completed each schedule of their Annual Report to comply with the filing requirements under 66 Pa. C.S. § 504.

<u>Follow-up Finding and Conclusion No. III-3</u> – Beginning in 2014, all schedules have been completed fully and accurately in the PUC Annual Reports.

The Audit Staff reviewed the past five years of Annual Reports submitted to the PUC by CPA; including Schedules 516 and 600. Schedule 516 and 600 information was completed in full beginning in 2014. By continually including the information in CPA's Annual Reports, the Company has complied with the filing requirements under 66 Pa. C.S. § 504 to provide useful and comparable financial and operating data.

<u>Follow-up Recommendation</u> – None.

IV. CUSTOMER SERVICE

Background – The Focused Management and Operations Audit of Columbia Gas of Pennsylvania, Inc. (CPA or Company), conducted by the Management Audit Division (Audit Staff) of the Pennsylvania Public Utility Commission (PUC or Commission) and released on August 15, 2013, at Docket No. D-2012-2290672, contained four recommendations within the Customer Service chapter. The Audit Staff rated the functional area as needing moderate improvement. In this chapter, four prior recommendations and four prior situations are reviewed and four follow-up findings and one follow-up recommendation are presented.

Prior Recommendation – Complete implementation of the Mobile Automated Meter Reading (MAMR) system and enact additional measures as necessary to minimize the number of meters not read within six months and twelve months and that, at a minimum, customer-supplied reads are acquired every six months.

Prior Situation – CPA had a significant number of meters not read in six and twelve months and did not comply with PUC regulations. Pursuant to 52 Pa. Code § 56.12(4)(ii), a utility may estimate the bill of a residential ratepayer if utility personnel are unable to gain access to obtain an actual meter reading. However, at least every six months, the utility must obtain an actual meter reading or ratepayer supplied reading to verify the accuracy of prior estimated bills. The Reporting Requirements for Quality of Service Benchmarks and Standards at § 62.33(b)(3)(i) require major natural gas distribution companies (NGDCs) to report the number and percentage of residential meters the utility has not read in accordance with § 56.12(4)(ii).

CPA's meter reading performance regarding the percentage of meters not read in six and twelve months was compared to a panel of other Pennsylvania NGDCs in the PUC's Bureau of Consumer Services (BCS) Customer Service Performance Report for the years 2009-2011. As shown in Exhibit IV-1, CPA's percentage of meters not read within six and twelve months was higher in each of the years when compared to the BCS panel average. According to the Company, the primary reason for the meters not being read within six or twelve months was the number of inside meter sets that presented accessibility issues. CPA had been relocating meter sets to the outside of structures for customers where both service line and main replacements were being completed. A customer read was attempted every month, and if a customer read was not obtained for three consecutive months, the following process was utilized:

- At three months, a postcard was mailed to the customer requesting access on the next scheduled read date.
- At four months, a letter was mailed to the customer requesting access to read the meter.
- At five months, a third-party telephone contact was completed.
- At six months, a termination notice was issued for failure to provide access to the meter.

Exhibit IV – 1
Columbia Gas of Pennsylvania, Inc.
Percentage of Meters Not Read in Six and Twelve Months
12 Months for Calendar Years 2009 through 2011

Meters Not Read in Six Months						
	2009		2010		2011	
Company	Number	Percent	Number	Percent	Number	Percent
Equitable	82	0.04%	11	< 0.01%	4	< 0.01%
NFG	389	0.20%	314	0.16%	506	0.26%
PECO	139	0.03%	4	< 0.01%	2	< 0.01%
PGW	257	0.06%	291	0.06%	182	0.04%
Peoples	703	0.22%	518	0.14%	388	0.11%
UGI - Gas	33	0.01%	19	0.01%	27	0.01%
UGI Penn Natural	30	0.02%	17	0.01%	18	0.01%
Panel Average	**233**	**0.08%**	**168**	**0.05%**	**161**	**0.06%**
CPA	**607**	**0.16%**	**665**	**0.17%**	**551**	**0.14%**
Meters Not Read in Twelve Months						
	2009		2010		2011	
Company	Number	Percent	Number	Percent	Number	Percent
Equitable	28	0.01%	0	0.00%	1	< 0.01%
NFG	73	0.04%	31	0.02%	22	0.01%
PECO	36	0.01%	0	0.00%	0	0.00%
PGW	71	< 0.01%	97	0.02%	60	0.01%
Peoples	96	0.03%	106	0.01%	35	0.02%
UGI - Gas	3	< 0.01%	1	< 0.01%	3	< 0.01%
UGI Penn Natural	7	< 0.01%	10	0.01%	3	< 0.01%
Panel Average	**45**	**0.01%**	**35**	**0.01%**	**18**	**0.01%**
CPA	**210**	**0.05%**	**220**	**0.05%**	**204**	**0.05%**

Source: 2009-2011 PUC Customer Service Performance Reports and Auditor Analysis

If a customer supplied reading was received for the account, the following process was utilized:

- At four months, a letter was mailed to the customer requesting access to read the meter.
- At nine months, a third-party telephone contact was completed and a postcard was mailed to the customer requesting access on the next scheduled read date.
- At ten months, a letter was mailed to the customer requesting access to read the meter.
- At 11 months, a third-party telephone contact was completed requesting access to read the meter.
- At 12 months, a termination notice was issued for failure to provide access to the meter.

When the Company does not read a meter within the six or twelve-month period, it is possible that it will not be aware of problems such as a fast or slow meter, or possible theft of service. The Company believed that completing the deployment of MAMR would resolve this issue. The MAMR project started in January 2011 and was scheduled for completion by the end of 2012.

<u>Follow-up Finding and Conclusion No. IV-1</u> – CPA has completed the installation of MAMR on virtually all of the Company's active residential meters which has significantly reduced the number of meters not read in six and twelve months.

The Company completed installation of MAMR on all but a handful of meters as of November 2016. CPA's meter reading performance regarding the percentage of meters not read in six and twelve months compared to a panel of other Pennsylvania NGDCs for the years 2013-2015 is shown in Exhibit IV-2. CPA's percentage of meters not read within six and twelve months was lower in each of the years when compared to the BCS panel average. Because of the Company aggressively deploying MAMR technology on customer meters, CPA's performance regarding the number of meters not read in six and twelve months is better than the panel average of other Pennsylvania NGDCs.

Exhibit IV – 2
Columbia Gas of Pennsylvania, Inc.
Percentage of Meters Not Read in Six and Twelve Months
12 Months for Calendar Years 2013 through 2015

Meters Not Read in Six Months						
	2013		2014		2015	
Company	Number	Percent	Number	Percent	Number	Percent
NFG	472	0.24%	507	0.26%	599	0.31%
Peoples-Equitable	0	0.00%	0	0.00%	0	0.00%
Peoples	431	0.15%	420	0.12%	498	0.13%
PECO (Gas)	7	< 0.01%	49	0.01%	144	0.03%
PGW	123	0.03%	300	0.06%	140	0.03%
UGI-Gas	41	0.01%	49	0.02%	54	0.02%
UGI Penn Natural	20	0.01%	26	0.02%	15	0.01%
Panel Average	**156**	**0.06%**	**193**	**0.07%**	**207**	**0.08%**
CPA	**10**	**< 0.01%**	**10**	**< 0.01%**	**4**	**< 0.01%**
Meters Not Read in Twelve Months						
	2013		2014		2015	
Company	Number	Percent	Number	Percent	Number	Percent
NFG	25	0.01%	29	0.01%	35	0.02%
Peoples-Equitable	0	0.00%	0	0.00%	0	0.00%
Peoples	63	0.02%	72	0.02%	76	0.02%
PECO (Gas)	0	0.00%	0	0.00%	3	< 0.01%
PGW	41	0.01%	71	0.02%	36	0.01%
UGI-Gas	12	< 0.01%	19	0.01%	22	0.01%
UGI Penn Natural	6	< 0.01%	15	0.01%	2	< 0.01%
Panel Average	**21**	**0.01%**	**29**	**0.01%**	**25**	**0.01%**
CPA	**6**	**< 0.01%**	**6**	**< 0.01%**	**2**	**< 0.01%**

Source: 2013-2015 PUC Customer Service Performance Reports and Auditor Analysis

<u>Follow-up Recommendation</u> – None.

<u>Prior Recommendation</u> – Accelerate efforts to relocate inside meter sets or, at a minimum, the associated regulators outside the structure.

<u>Prior Situation</u> – CPA had a high number of meter sets located inside structures. The selection of natural gas meter set (i.e., gas meter and associated gas regulator) locations needed to consider the safety of the building being supplied with gas and the meter piping itself. Normally an outdoor location of meter sets is preferred to facilitate the safe relief of excess gas pressure if an emergency occurs. Pressure is designed to be relieved at the meter set's regulator to protect the downstream piping from becoming over-pressurized. Meter sets that are located inside structures have become an increasing safety concern as the average age of equipment has increased along with the number of gas leaks that have occurred inside structures. Therefore, on July 28, 2011, the Commission initiated a rulemaking process to amend existing regulations at 52 Pa. Code § 59.18 related to meter set location via a Proposed Rulemaking Order, at Docket No. L-2009-2107155.

The Proposed Rulemaking Order was intended to align the Commission's meter set location regulations with provisions of the Code of Federal Regulations, which were previously adopted by the Commission, in order to enable gas utilities to more efficiently address meter set location programs and to ensure safe and reliable service. The Proposed Rulemaking Order included a requirement that meter sets be installed outside and above ground in most circumstances, and that the location must accommodate meter reading, inspections, repairs, testing, changing and operation of the gas shut-off valve. When the Commission or a utility determines that a meter set must be moved for safety reasons, all costs associated with the relocation of such meter set are to be borne by the utility. When a utility moves a meter set, the related cost of extending customer-owned facilities to the new meter set location shall also be borne by the utility.

As of November 2012, CPA had 86,701 meter sets located inside structures. As part of its accelerated main replacement program initiated in 2007, CPA had relocated approximately 2,900 inside meter sets annually. The Commission's 2011 Order initiating the Proposed Rulemaking noted that the percentage of inside meter sets industry-wide had remained consistent for the past five years, indicating that Columbia's inside meter set relocation efforts exceeded the industry as a whole.

<u>Follow-up Finding and Conclusion No. IV-2</u> – CPA is on track to meet the Commission's regulatory requirement to relocate inside meter sets by September 13, 2034.

In September 2014, 52 Pa. Code § 59.18 was amended to effectively require all new meter sets to be located outside and above ground and qualifying that existing inside meter sets to be relocated outside by September 2034. The Company is currently relocating inside meter sets concurrently with its Long Term Infrastructure Improvement Plan (LTIIP) as well as developing a comprehensive plan to eliminate inside meter sets not associated with the LTIIP. Relocating inside meter sets to an outside location facilitates the safe relief of excess gas pressure if an emergency occurs.

CPA indicated it had 70,550 inside meter sets as of August 2016. From December 31, 2012 to August 31, 2016, CPA relocated 15,161 inside meter sets, or an average of approximately 4,100 meters per year. To meet the Commission's September 2034 regulatory deadline, the Company would need to relocate approximately 3,900 inside meter sets annually, which appears to be an attainable goal.

CPA anticipates that two-thirds of its inside meter sets will be relocated as part of the cast iron and bare steel main infrastructure replacement program which was initiated in 2007. The customer service lines are also being replaced at the same time, if necessary, to ensure customer safety and leak prevention. To meet the Commission's regulatory deadline, the Company will also have to identify and relocate inside meter sets independent of the infrastructure main replacement program. CPA is currently developing a comprehensive plan to use both internal crews and independent contractors to relocate the remaining inside meter sets.

Follow-up Recommendation – None.

Prior Recommendation – Strive to minimize write-offs of delinquent accounts receivable by exploring potential solutions to enhance the collection efforts.

Prior Situation – CPA had a higher percentage of gross write-offs than the panel average of other Pennsylvania NGDCs. As shown in Exhibit IV-3, CPA wrote off (i.e., expensed) a higher percentage of its revenues as uncollectible compared to a panel average of Pennsylvania NGDCs during the years 2009 and 2011.

Exhibit IV – 3
Columbia Gas of Pennsylvania, Inc.
Residential Gross Write-Offs as a Percentage of Residential Gross Revenues
12 Months for Calendar Years 2009 through 2011

Company	2009	2010	2011
Peoples	4.06%	3.59%	1.82%
Equitable	2.97%	2.19%	2.13%
NFG	2.33%	3.39%	2.00%
PECO - Gas	0.85%	1.17%	0.97%
UGI - Gas	3.08%	2.43%	2.27%
UGI Penn Natural	3.83%	2.75%	2.10%
Panel Average	2.85%	2.59%	1.88%
CPA	3.11%	2.27%	2.82%

Source: 2009-2011 PUC Reports on Universal Service Programs & Collections Performance and Auditor Analysis

Consequently, the Audit Staff recommended that CPA should take remedial action to align its performance relative to the panel of other Pennsylvania NGDCs. Timely receipt of payment for service would enhance CPA's cash flow, reduce its write-offs and lower the level of borrowing needed from the NiSource Money Pool.[1] Based on the Company's average revenues and write-offs for the period 2009 to 2011, CPA's average write-off percentage was 2.73% compared to an average write-off of 2.44% for the panel of other Pennsylvania NGDCs. Over this period, the Audit Staff estimated that CPA could have saved approximately $15,000 annually in interest expense by reducing its write-off percentage to the panel average. The estimated savings is based on the Money Pool interest rate of 1.40%, effective as of April 30, 2012.

<u>Follow-up Finding and Conclusion No. IV-3</u> – CPA has reduced its levels of residential gross write-offs and is comparable with the panel average of other Pennsylvania NGDCs.

The Company reduced its residential gross write-offs ratio from 2.8% in 2012 to 2.5% in 2015. In addition, CPA's gross write-offs ratio for each of the years 2013 through 2015 was comparable with the average residential gross write-offs ratio of other Pennsylvania NGDCs as shown in Exhibit IV-4.

Exhibit IV – 4
Columbia Gas of Pennsylvania, Inc.
Residential Gross Write-Offs as a Percentage of Residential Gross Revenues
12 Months for Calendar Years 2012 through 2015

Company	2012	2013	2014	2015
Peoples	0.3%	3.6%	2.6%	4.3%
Equitable	1.9%	1.9%	2.0%	1.1%
NFG	2.6%	2.2%	2.1%	3.3%
PECO - Gas	0.7%	0.5%	0.5%	0.6%
UGI - Gas	2.3%	2.2%	3.0%	3.3%
UGI Penn Natural	1.8%	1.6%	2.2%	2.7%
Panel Average	1.6%	2.0%	2.1%	2.6%
CPA	2.8%	2.0%	2.2%	2.5%

Source: 2009-2011 PUC Reports on Universal Service Programs & Collections Performance and Auditor Analysis

CPA indicated that the gross write-offs ratio increased from 2.0% in 2013 to 2.5% in 2015 primarily due to:

- Low-Income Home Energy Assistance Program (LIHEAP) grants decreased

[1] CPA borrows and invests short-term funds through the NiSource Money Pool. Daily, the Company determines if it has funds available to invest in the Money Pool or has a need to borrow from the Money Pool. The Money Pool interest rate is based on the average outstanding external debt and investment for NiSource Finance Corporation, a subsidiary of the parent, NiSource, Inc., and an affiliate of CPA.

from $13.6 million in the 2010/2011 heating season to $7.9 million in the 2011/2012 heating season while maintaining virtually the same number of recipients. In the 2012/2013 heating season, LIHEAP grants decreased to $6.3 million. Consequently, participating customers were required to shoulder a higher percentage of billed charges which affected their ability to pay and ultimately resulted in higher levels of write-offs.

- Customer Assistance Program (CAP) reconnection payment provisions which allow former CAP customers previously terminated to re-establish service by agreeing to pay 1/24th of their entire pre-CAP program account balance. CPA believes that any low-income customer approved for CAP should be required to remain in the CAP program until their financial status improves. CPA believes allowing a customer to pay 1/24th of their entire pre-CAP program account balance contributes to higher arrears for these low-income customers.

- Lower reported revenue in 2015 due to warm weather experienced in the fourth quarter of 2015 that resulted in a higher proportion of write-offs as a percentage of gross revenues.

CPA performed the following actions in an attempt to reduce write-off levels:

- Reviewed data sources and criteria for reports to determine if CPA was accurately reporting gross write-offs. Based on this review, which the Company performs annually, it was determined that gross write-offs were being reported accurately and the reporting process has been consistent each year.

- Implemented the following action steps regarding collection agencies:
    - Implemented new software in mid-2014 to assist in managing outside collection agencies. An external vendor tracks the collection agencies using the (their own) software.
    - Issued a request for proposal (RFP) for new collection agencies in an attempt to achieve better collections performance.
    - Selected new collection agencies from the RFP process. Two primary collection agencies and one secondary collection agency were replaced. CPA hopes this approach will result in continued improvements in future performance from the collection agencies.

- Reviewed the active collection processes to determine if opportunities existed to implement new solutions for improvement. Based on this review, the Company implemented a monthly report based on chronic delinquent customers with inside meters; developed a report showing delinquencies by dollar amount – these accounts can be addressed by manual calls, etc.; and implemented a quality assurance program for outbound calls.

Timely receipt of payment for service enhances CPA's cash flow, reduces its write-offs and lowers the level of borrowing needed from the NiSource Money Pool. For the period 2013-2015, the Company's average write-off percentage was 2.2%, which was the same as the average write-off percentage of the panel of other Pennsylvania NGDC's. Over this period, CPA saved approximately $11,800 annually in interest expense by reducing its average gross write-offs as a percentage of gross revenues from approximately 2.73% during the period of 2009-2011 to approximately 2.2% during the period of 2013-2015. The estimate is based on the 12-month London Interbank Offered Rate (LIBOR) for December 2015 of 1.0896%.

<u>Follow-up Recommendation</u> – None.

<u>Prior Recommendation</u> – Ensure that delinquent account collection agencies are achieving their performance goals, and as necessary, replace poor performing agencies with new collection agencies.

<u>Prior Situation</u> – NiSource Corporate Services Company (Corporate Services) was responsible for monitoring collection processes for all regulated affiliate companies including CPA. Corporate Services contracted with outside collection agencies in an attempt to recover outstanding payments it was unable to recover on its own for CPA and its affiliates. Primary agencies made the first attempt to recover delinquent accounts placed with them, while secondary agencies were used to attempt to recover delinquent accounts not accomplished by a primary agency after nine months. The collection performance for 2007 through 2011 and January through November 2012 for the five agencies is shown in Exhibit IV-5 (i.e., primary collections) and Exhibit IV-6 (i.e., secondary collections). The combined totals of all the primary and secondary agencies and the net collection rates for the agencies are displayed below the individual agency performances. Corporate Services established the 2012 CPA threshold (or minimum) level for net collections for primary agencies at 7.75% while striving to achieve a goal of 8%.

Exhibit IV – 5
Columbia Gas of Pennsylvania, Inc.
Performance of Primary Collections
12 Months for Calendar Years 2007 through 2011 and
January 1 through November 30, 2012

Year	Agency	Placed	Gross Collections	% Gross Collection	Net Collections	% Net Collection
2007	Primary Agency #1	$4,554,789	$467,950	10.27%	$407,584	8.95%
2008	Primary Agency #1	$7,823,834	$758,054	9.69%	$660,265	8.44%
2009	Primary Agency #1	$6,905,570	$715,371	10.36%	$598,944	8.67%
2010	Primary Agency #1	$3,181,799	$300,512	9.44%	$248,223	7.80%
2011	Primary Agency #1	$3,164,852	$273,386	8.64%	$225,817	7.14%
2012*	Primary Agency #1	$2,392,261	$171,128	7.15%	$141,352	5.91%
Year	**Agency**	**Placed**	**Gross Collections**	**% Gross Collection**	**Net Collections**	**% Net Collection**
2007	Primary Agency #2	$3,536,565	$233,481	6.60%	$199,626	5.64%
2008	Primary Agency #2	$3,855,294	$218,091	5.66%	$186,468	4.84%
2009	Primary Agency #2	$3,998,840	$233,481	5.84%	$199,626	4.99%
2010	Primary Agency #2	$2,497,049	$119,022	4.77%	$103,549	4.15%
2011	Primary Agency #2	$2,523,716	$114,131	4.52%	$99,865	3.96%
2012*	Primary Agency #2	$1,802,750	$88,688	4.92%	$77,602	4.30%
Year	**Agency**	**Placed**	**Gross Collections**	**% Gross Collection**	**Net Collections**	**% Net Collection**
2007	Primary Agency #3	$696,117	$72,129	10.36%	$62,752	9.01%
2008	Primary Agency #3	$909,988	$83,011	9.12%	$72,220	7.94%
2009	Primary Agency #3	$1,669,393	$145,300	8.70%	$126,411	7.57%
2010	Primary Agency #3	$2,511,717	$176,749	7.04%	$153,772	6.12%
2011	Primary Agency #3	$3,104,823	$253,847	8.18%	$220,847	7.11%
2012*	Primary Agency #3	$2,283,622	$146,206	6.40%	$127,199	5.57%
Year	**Agency**	**Placed**	**Gross Collections**	**% Gross Collection**	**Net Collections**	**% Net Collection**
2007	Total Primary Agencies	$8,787,471	$773,560	8.80%	$669,962	7.62%
2008	Total Primary Agencies	$12,589,116	$1,059,156	8.41%	$918,953	7.30%
2009	Total Primary Agencies	$12,573,803	$1,094,152	8.70%	$924,981	7.36%
2010	Total Primary Agencies	$8,190,565	$596,283	7.28%	$505,544	6.17%
2011	Total Primary Agencies	$8,793,391	$641,364	7.29%	$546,529	6.22%
2012*	Total Primary Agencies	$6,478,633	$406,022	6.27%	$346,153	5.34%
6-Year Total for Primary Agencies		**$57,412,979**	**$4,570,537**	**7.96%**	**$3,912,122**	**6.81%**

* - Data is for the period January 1 through November 30, 2012.
Source: 2013 Management Audit Report Exhibit VII-7

Exhibit IV – 6
Columbia Gas of Pennsylvania, Inc.
Performance of Secondary Collections
12 Months for Calendar Years 2007 through 2011 and
January 1 through November 30, 2012

Year	Agency	Placed	Gross Collections	% Gross Collection	Net Collections	% Net Collection
2007	Secondary Agency #1	$11,540,489	$126,222	1.09%	$86,778	0.75%
2008	Secondary Agency #1	$6,005,354	$159,605	2.66%	$118,108	1.97%
2009	Secondary Agency #1	$34,179,030	$243,580	0.71%	$180,249	0.53%
2010	Secondary Agency #1	$10,762,313	$271,090	2.52%	$200,607	1.86%
2011	Secondary Agency #1	$4,170,765	$290,940	6.98%	$215,296	5.16%
2012*	Secondary Agency #1	$4,030,786	$188,501	4.68%	$139,491	3.46%
Year	Agency	Placed	Gross Collections	% Gross Collection	Net Collections	% Net Collection
2007	Secondary Agency #2	NA	NA	NA	NA	NA
2008	Secondary Agency #2	NA	NA	NA	NA	NA
2009	Secondary Agency #2	NA	NA	NA	NA	NA
2010	Secondary Agency #2	$5,693,925	$32,420	0.57%	$23,991	0.42%
2011	Secondary Agency #2	$2,157,734	$20,669	0.96%	$15,295	0.71%
2012*	Secondary Agency #2	$2,283,881	$33,786	1.48%	$25,002	1.09%
Year	Agency	Placed	Gross Collections	% Gross Collection	Net Collections	% Net Collection
2007	Total Secondary Agencies	$11,540,489	$126,222	1.09%	$86,778	0.75%
2008	Total Secondary Agencies	$6,005,354	$159,605	2.66%	$118,108	1.97%
2009	Total Secondary Agencies	$34,179,030	$243,580	0.71%	$180,249	0.53%
2010	Total Secondary Agencies	$16,456,238	$303,510	1.84%	$224,598	1.36%
2011	Total Secondary Agencies	$6,328,499	$311,609	4.92%	$230,591	3.64%
2012*	Total Secondary Agencies	$6,314,667	$222,287	3.52%	$164,493	2.60%
6-Year Total for Secondary Agencies		**$80,824,277**	**$1,366,813**	**1.69%**	**$1,004,817**	**1.24%**

NA – Secondary Agency #2 was not utilized in 2007-2009.
* - Data is for the period January through November 30, 2012.
Source: 2013 Management Audit Report Exhibit VII-7

In general, the primary collection agencies were not achieving the performance goals established for their collection efforts. Although thresholds and goals were not established for secondary agencies in 2012, the first monthly scorecard meeting for primary and secondary agencies included performance for the July, August and September period of 2012. New CPA goals and thresholds for primary and secondary agencies were to be established in December 2012 for use starting in January 2013. The new goals for primary agencies could be different from the secondary agencies based on the scorecards for each group. The goal and threshold levels were to be based on previous performance of the collection agencies. If a goal or threshold was not reached, accounts could be taken from an agency and given to another agency or a new agency. Corporate Services had previously discharged agencies due to poor performance. For example, in 2008, the primary agencies were changed due to poor performance, and in 2010, Corporate Services added another agency for secondary collections. The Audit Staff noted that for other than one primary agency in 2010 through 2011 and January through November 2012, none of the agencies met the minimum expected threshold performance level for net collections of 7.75%.

The Audit Staff noted that the Company should have taken measures to ensure that collection performance service levels from each of the collection agencies were adequate. Exhibit IV-7 shows what primary collections would have yielded had the threshold and/or goal been achieved versus actual net collections for the years 2010 through 2011 and January 1 through November 30, 2012. On average, CPA would have increased its net collections by approximately $140,000 to $160,000 for the three-year period had it achieved its annual net collection threshold or goal.

Exhibit IV – 7
Columbia Gas of Pennsylvania, Inc.
Primary Collections Threshold and Goal vs. Actual Performance
12 Months for Calendar Years 2010 through 2011 and
January 1 through November 30, 2012

Year	Agency	Placed	Net Collections for 7.75% Threshold	Net Collections for 8.00% Goal	Actual Net Collections	Difference Between Actual and Threshold	Difference Between Actual and Goal
2010	Primary Agencies	$8,190,565	$634,769	$655,245	$505,544	**$129,225**	**$149,701**
2011	Primary Agencies	$8,793,391	$681,488	$703,471	$546,529	**$134,959**	**$156,942**
2012*	Primary Agencies	$6,478,633	$502,094	$518,291	$346,153	**$155,941**	**$172,138**
					3-Year Average	**$140,042**	**$159,594**

* - Data is for the period January through November 2012.
Source: 2013 Management Audit Report Exhibit VII-9

<u>Follow-up Finding and Conclusion No. IV-4</u> – Corporate Services does not assess collection agency performance on a statewide basis.

Corporate Services revised its delinquent customer account collections process and migrated to a newly established multi-state collection agency performance assessment and reporting process for the regulated NGDCs under the Columbia Energy Group (Columbia). Collection efforts for delinquent accounts were subrogated to collection agencies based on defined roles (i.e., Early Out, Primary, and Secondary) as part of a Corporate Services Request for Proposal (RFP) issued in October 2013. The RFP was issued to solicit collection agency bids on behalf of Corporate Services for delinquent collection services for Columbia NGDC operating subsidiaries in six states.

Collection agencies were subsequently selected and awarded contracts in the first quarter of 2014. An "Early Out" collection process was established in which attempts are made by two contracted vendors to collect on delinquent accounts 30 days prior to assigning to an outside primary or secondary collection agency. Attempts for collection are made via letters and phone calls through a more customer-friendly approach under which delinquent final bill payments are made directly to the respective affiliated NGDC via one of their payment channels (i.e., mail, phone, website, etc.). Early Out vendor commission fees are lower than primary and secondary collection fees. With higher collection rates achieved during the Early Out process, the more difficult delinquent accounts are assigned to the Primary and Secondary collection agencies.

Corporate Services also implemented new software to assist in managing outside collection agencies in late 2013. The new software was obtained from an outside vendor, who also maintains the data and reports on the performance of each collection agency. Information is submitted to the outside vendor who then passes it on to the appropriate collection agency or agencies. Each collection agency uploads information back to the outside vendor, which then transmits the information back to Corporate Services to update the accounts. Corporate Services now uses two Early Out collection agencies, three Primary collection agencies, and two Secondary collection agencies. The collection agency data measured in terms of performance assessment for Early Out, Primary, and Secondary collections at CPA for the period January 1, 2014 through December 7, 2016 is shown in Exhibits IV-8, IV-9, and IV-10, respectively.

Exhibit IV – 8
Columbia Gas of Pennsylvania, Inc.
Agency Performance of Early Out Collections
12 Months for Calendar Years 2014 through 2015 and
January 1 through December 7, 2016

Year	Agency	Amount Placed	Gross Collections	% Gross Collection	Net Collections	% Net Collection
2014	Agency 1	$781,139	$58,807	7.53%	$55,279	7.08%
2014	Agency 2	$3,714,225	$239,386	6.45%	$225,023	6.06%
2015	Agency 1	$2,449,368	$268,610	10.97%	$252,493	10.31%
2015	Agency 2	$2,365,964	$204,046	8.62%	$191,803	8.11%
2016	Agency 1	$1,777,500	$190,057	10.69%	$178,654	10.05%
2016	Agency 2	$1,831,259	$132,872	7.26%	$124,900	6.82%
2014	Total Early Out	$4,495,364	$298,193	6.63%	$280,301	6.24%
2015	Total Early Out	$4,815,332	$472,656	9.82%	$444,297	9.23%
2016	Total Early Out	$3,608,759	$322,929	8.95%	$303,553	8.41%

Agency 1 in 2014: August to December 2014
Agency 2 in 2014: March to December 2014
Source: Data Requests No. CS-10 and CS-16

Exhibit IV – 9
Columbia Gas of Pennsylvania, Inc.
Agency Performance of Primary Collections
12 Months for Calendar Years 2014 through 2015 and
January 1 through December 7, 2016

Year	Agency	Amount Placed	Gross Collections	% Gross Collection	Net Collections	% Net Collection
2014	Agency 1	$1,579,313	$29,251	1.85%	$24,161	1.53%
2014	Agency 3	$1,542,062	$20,784	1.35%	$18,186	1.18%
2014	Agency 4	$982,012	$46,204	4.71%	$37,887	3.86%
2014	Agency 5	$976,816	$50,888	5.21%	$41,728	4.27%
2015	Agency 3	$3,356,366	$151,850	4.52%	$124,517	3.71%
2015	Agency 4	$3,521,673	$205,892	5.85%	$197,575	5.61%
2015	Agency 5	$3,360,938	$205,559	6.12%	$168,558	5.02%
2016	Agency 3	$2,507,621	$72,367	2.89%	$59,341	2.37%
2016	Agency 4	$2,544,207	$111,286	4.37%	$91,254	3.59%
2016	Agency 5	$2,654,232	$118,762	4.47%	$97,385	3.67%
2014	Total Primary	$5,080,203	$147,127	2.90%	$121,962	2.40%
2015	Total Primary	$10,238,977	$563,301	5.50%	$490,651	4.79%
2016	Total Primary	$7,706,060	$302,415	3.92%	$247,980	3.22%

Source: Data Requests No. CS-3 and CS-16

Exhibit IV – 10
Columbia Gas of Pennsylvania, Inc.
Agency Performance of Secondary Collections
12 Months for Calendar Years 2014 through 2015 and
January 1 through December 7, 2016

Year	Agency	Amount Placed	Gross Collections	% Gross Collection	Net Collections	% Net Collection
2014	Agency 2	$41,028,558	$124,572	0.30%	$91,794	0.22%
2014	Agency 3	$1,287,350	$22,700	1.76%	$17,571	1.36%
2015	Agency 2	$13,390,115	$87,169	0.65%	$66,501	0.50%
2015	Agency 3	$3,477,940	$83,921	2.41%	$61,364	1.76%
2016	Agency 2	$6,466,515	$39,833	0.62%	$29,522	0.46%
2016	Agency 3	$6,412,495,	$65,040	1.01%	$49,500	0.77%
2014	Total Secondary	$42,315,908	$147,272	0.35%	$109,365	0.26%
2015	Total Secondary	$16,868,055	$171,090	1.01%	$127,865	0.76%
2016	Total Secondary	$12,879,010	$104,873	0.81%	$79,022	0.61%

Source: Data Requests No. CS-3 and CS-16

Monthly performance thresholds as part of the RFP process were established at the Columbia consolidated multi-state level for Early Out, Primary, and Secondary collection agencies. Monthly performance thresholds were not established on an individual state basis. Quarterly performance thresholds have also been established for Primary and Secondary collection agencies on the same basis. Each collection agency is assigned delinquent accounts from all six states. The performance threshold levels are established based on gross amounts collected. Currently, each collection agency receives the same commission for amounts collected by type of collection: 6.0% for Early Out collections, 18.0% for Primary collections, and 27.0% for the first 12 months of Secondary collections and 18.0% thereafter.

Exhibit IV-11 shows gross actual performance for each collection agency on a consolidated basis in total versus the performance threshold levels established for Early Out, Primary, and Secondary collections for January 1 through November 2016. The monthly performance threshold levels were not established until January 2016, when the outside vendor had accumulated a sufficient amount of data (i.e., gross liquidation percentages) to develop threshold levels. The 2016 threshold levels were determined using partial year 2014 and full-year 2015 collections data. Amounts highlighted in yellow show when a monthly or quarterly threshold level was met. When assessing the performance of each collection agency, it should be noted that the Early Out collection agencies have 30 days to achieve their monthly threshold level, while the Primary and Secondary collection agencies have 9 months and 12 months, respectively, to meet their monthly threshold level.

Exhibit IV – 11
NiSource Corporate Services Customer Operations
Agency Performance of Early Out, Primary, and Secondary Collections across Six States
Actual Percentage of Gross Collections Performance vs. Threshold Levels
For the Months January 1 through November 30, 2016

Early Out

Agency	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Agency 1	18.90%	21.35%	19.11%	16.98%	15.42%	15.97%	16.07%	18.50%	16.73%	18.53%	14.07%	
Agency 2	15.26%	13.54%	13.47%	12.18%	11.29%	10.41%	11.85%	12.42%	11.73%	12.01%	6.84%	
Threshold	17.70%	17.75%	16.30%	12.70%	10.70%	11.90%	12.75%	13.10%	13.50%	12.00%	11.80%	11.35%

Primary

Agency	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Agency 3	5.26%	7.01%	9.42%	6.37%	6.95%	5.11%	5.06%	5.71%	4.24%	2.97%	1.19%	
Agency 4	8.95%	10.21%	8.16%	8.66%	7.37%	6.66%	5.12%	6.40%	5.03%	3.57%	1.83%	
Agency 5	7.72%	7.60%	7.10%	7.45%	9.34%	6.87%	6.08%	7.01%	6.82%	3.87%	1.58%	
Threshold	4.50%	9.10%	8.55%	8.90%	7.60%	9.00%	6.50%	5.80%	5.00%	3.40%	2.60%	1.70%

Agency	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Agency 3	7.23%	6.14%	5.00%	2.08%
Agency 4	9.11%	7.56%	5.52%	2.70%
Agency 5	7.47%	7.89%	6.64%	2.73%
Threshold	7.40%	8.50%	5.80%	2.60%

Secondary

Agency	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Agency 2	3.57%	2.21%	2.04%	1.37%	1.61%	1.50%	1.78%	0.90%	1.74%	0.51%	0.19%	
Agency 3	3.17%	2.85%	2.32%	1.65%	1.62%	1.60%	1.23%	1.14%	1.01%	0.41%	0.15%	
Threshold	1.90%	3.10%	2.55%	2.50%	1.90%	2.10%	1.75%	1.85%	1.30%	1.30%	1.10%	0.60%

Agency	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Agency 2	2.61%	1.49%	1.47%	0.35%
Agency 3	2.78%	1.62%	1.13%	0.28%
Threshold	2.50%	2.20%	1.60%	1.00%

Source: Data Request No. CS-16

For the Early Out collections, Agency 1 has met all monthly performance threshold levels for the months January through November 2016, whereas Agency 2 has only met the performance threshold level for May and October 2016. Corporate Services indicated that each collection agency was assigned 50% of the Early Out accounts; it plans to increase the percentage of accounts given to Agency 1 due to their better performance. Corporate Services also meets with each collection agency on a monthly basis. The outside vendor who assists CPA in managing outside collection agencies (by maintaining the data and reporting on the performance of each collection agency) meets with each collection agency two times per month to discuss their collections performance, etc. CPA believes that the performance threshold levels are not too low and, along with the outside vendor, are working with each collection agency to help them improve their performance levels. The Early Out, Primary, and Secondary collections performance levels shown in Exhibit VII-11 on a consolidated basis is higher than the Pennsylvania-only performance shown in Exhibits IV-8, IV-9, and IV-10 due to the various regulatory operating requirements unique to each respective state in which each Columbia NGDC operates including Pennsylvania.

The Company should ensure they are receiving the desired collection performance from each of the collection agencies they retain for services through effective monitoring, and if needed, replace any poor performing agencies. Effective monitoring of performance can be achieved through the establishment of measureable threshold levels or goals which have been based upon historical performance and possibly benchmarking of performance elsewhere. When benchmarking or conducting comparisons, it is always important to make certain there are no significant differences in practices that may affect the levels of performance used in establishing the threshold or goal. When this occurs, it diminishes the value of setting the goal at a level that is either too low (and, therefore, too easy to achieve) or too high (and, therefore, too difficult to achieve). Either of these scenarios will result in an ineffective measurement and monitoring of performance.

There are varying regulations that can affect the collection practices that take place in each of the states the Columbia NGDCs operate. The use of a monitoring process that measures the consolidated collection performance across six different states makes it difficult to assess whether the Company has properly established meaningful threshold levels for collection activity in Pennsylvania.

<u>Follow-up Recommendation</u> – Establish Pennsylvania specific threshold levels or goals for measuring collection agency performance that are based on the gross collections as a percentage of amounts placed for collection in Pennsylvania, and if needed, replace any poor performing collection agencies.

V. GAS OPERATIONS

Background – The Focused Management and Operations Audit of Columbia Gas of Pennsylvania, Inc. (CPA or Company) conducted by the Management Audit Division (Audit Staff) of the Pennsylvania Public Utility Commission (PUC or Commission) and released on August 15, 2013, at Docket No. D-2012-2290672, contained four recommendations within the Gas Operations chapter. The Audit Staff rated the functional area as needing moderate improvement. In this chapter, the prior recommendations and prior situations are reviewed and four follow-up findings and two recommendations are presented.

Prior Recommendation – Strive to maintain the expedited replacement schedule of first generation pipe.

Prior Situation – CPA referred to bare steel and cast iron main as "first generation pipe" or priority pipe to be removed and replaced in its system. Exhibit V-1 details the percentage of priority pipe in CPA's system and how the Company compared to a panel of similar Pennsylvania natural gas distribution companies (NGDCs) for the years 2007 through 2011. As of November 2012, CPA had approximately 1,866 miles of priority pipe; 46 miles of which were cast iron.

Exhibit V – 1
Columbia Gas of Pennsylvania, Inc.
Percent Bare Steel/Cast Iron – Distribution Only
12 Months for Calendar Years 2007 through 2011

Company	2007	2008	2009	2010	2011	Compound Growth
BARE STEEL						
Equitable	24.3%	23.7%	23.0%	22.4%	21.0%	-3.6%
National Fuel	20.6%	19.9%	19.3%	18.5%	17.9%	-3.4%
Peoples	28.3%	27.8%	27.4%	26.9%	26.5%	-1.6%
Peoples TWP	39.5%	38.4%	37.3%	36.5%	35.4%	-2.7%
UGI Central	17.8%	17.5%	16.9%	16.5%	16.2%	-2.3%
UGI Penn	11.3%	11.1%	11.0%	10.6%	10.3%	-2.3%
UGI Utilities	5.6%	5.3%	5.1%	4.9%	4.6%	-4.7%
Panel Average	21.1%	20.5%	20.0%	19.5%	18.9%	-2.7%
Columbia	**28.4%**	**27.1%**	**26.2%**	**25.3%**	**23.3%**	**-4.9%**
CAST IRON						
Equitable	1.4%	1.4%	1.4%	1.3%	3.0%	21.1%
National Fuel	1.9%	1.8%	1.8%	1.7%	1.7%	-2.2%
Peoples	1.0%	1.0%	1.0%	0.9%	0.9%	-2.7%
Peoples TWP	0.0%	0.0%	0.0%	0.0%	0.0%	NM
UGI Central	0.7%	1.6%	0.5%	0.5%	0.4%	-10.1%
UGI Penn	5.5%	5.2%	2.5%	4.7%	4.5%	-5.1%
UGI Utilities	8.1%	7.9%	7.5%	7.3%	6.8%	-4.3%
Panel Average	2.7%	2.7%	2.1%	2.3%	2.5%	-1.7%
Columbia	**1.0%**	**0.9%**	**0.9%**	**0.8%**	**2.2%**	**21.6%**

Source: U.S. Department of Transportation Annual Reports

CPA had plans to replace on average 100 miles of bare steel and 4 miles of cast iron main annually until it had completely replaced all priority pipe. At this rate, it would take CPA approximately 18 years to replace all bare steel main and 10 years for cast iron in its system. The anticipated completion date for removal of all priority pipe would be achieved by the year 2030.

Follow-up Finding and Conclusion No. V-1 – CPA has met priority pipe replacement levels consistent with its Long Term Infrastructure Improvement Plan.

Pursuant to the Final Implementation Order of the PUC entered at Docket No. M-2012-2293611 on August 2, 2012, CPA filed a petition for the approval of a Long-Term Infrastructure Improvement Plan (LTIIP). The LTIIP is a precondition to filing a Distribution System Improvement Charge (DSIC) enabling a utility to recover costs associated with eligible property. A Company's LTIIP provides a five-year projection on the amount of pipe to be replaced and the related capital investment.

On December 7, 2012, CPA submitted its LTIIP to the Commission and on March 14, 2013 the plan had been approved. The LTIIP provided estimated annual pipe replacement levels and associated expenditures for the years 2013 through 2017. As shown in Exhibit V-2, CPA has achieved its LTIIP projections for the first three years of the plan.

Exhibit V – 2
Columbia Gas of Pennsylvania, Inc.
Long Term Infrastructure Improvement Plan
Projections vs. Actual Miles Retired & Expenditures
12 Months for Calendar Years 2013 through 2017

	LTIIP		Actuals	
Year	Miles of DSIC Eligible Pipe	$(MM)	Miles of DSIC Eligible Pipe	$(MM)
2013	118	151.6	127.1	141.6
2014	118	148.9	125.3	148.3
2015	99	120.6	139.7	152.3
2016	99	119.4	NA	NA
2017	95	116.9	NA	NA
TOTALS	529	657.4	392.1	442.2
AVG	105.8	131.5	130.7	147.4

Source: Data Request GO-22, 2013-2015 Annual Asset Optimization Plan, and Auditor Analysis

Over a three-year period (i.e., January 2013 to January 2016), CPA has reduced its miles of unprotected bare steel (1,641 to 1,415 miles) and cast iron (40 to 30 miles) pipe. Over the course of three years, CPA retired and/or replaced 226 miles (13.8%) of unprotected bare steel and 10 miles (25.0%) of cast iron pipe. CPA has been replacing unprotected bare steel and cast iron pipe at average annual rates of approximately 75 miles and 3.4 miles, respectively. At these rates, all priority pipe should be replaced or retired within 18 years or by the year 2033.

Overall, CPA has been able to increase main replacement rates since the 2013 Management Audit. During the years 2007 through 2011, the Company on average replaced 78.9 miles annually compared to 130.7 miles annually during the currently available LTIIP data. The numbers suggest that the Company is dedicated to replacing its distribution infrastructure and shall be able to stay on track with its accelerated target goals.

Follow-up Recommendation – None.

Prior Recommendation – Assess high levels of overtime by individual operations employees and adjust overtime practices, call out procedures, shift work, and/or stand by procedures as needed.

Prior Situation – Annual overall overtime levels for the field operations employees at CPA from 2007 to October 2012 ranged from 7% to 12%. Although this range of overtime for field employees in total is not unreasonable for an NGDC, there were a substantial number of CPA employees who worked significant amounts of overtime during 2011. CPA indicated that it used from 500 to 600 hours annually, or 24.0% to 28.8% of regular hours, as the reasonable upper limit on overtime for field operations positions. Using 600 hours as the upper annual limit, the Audit Staff reviewed overtime levels for the field operations employees whose overtime exceeded 600 hours annually from 2007 to October 2012. Exhibit V-3 displays the top 10 overtime percentages that field operations employees worked each year and how many total field operations employees worked more than 600 hours or 28.8% of overtime during the years 2007-2011. Any overtime levels that exceed the upper reasonable limit of 28.8% are highlighted in red.

Exhibit V – 3
Columbia Gas of Pennsylvania, Inc.
Individual Overtime Percentages – Top 10
12 Months for Calendar Years 2007 through 2011

Rank	2007	2008	2009	2010	2011
1	53.7%	41.6%	25.6%	35.7%	44.0%
2	51.0%	33.3%	24.2%	35.3%	38.0%
3	47.8%	33.1%	23.8%	29.4%	37.1%
4	46.6%	33.1%	23.6%	27.8%	36.4%
5	42.6%	30.5%	22.3%	27.5%	34.3%
6	41.5%	29.2%	22.1%	27.5%	32.9%
7	38.9%	28.5%	21.1%	26.9%	31.3%
8	37.0%	28.2%	21.0%	26.6%	30.9%
9	36.3%	28.0%	20.8%	26.3%	30.7%
10	36.1%	27.9%	20.8%	26.3%	30.1%
# EE > 600 hrs	25	6	0	3	14

Source: 2013 Management Audit Exhibit VIII-17 and Auditor Analysis

<u>Follow-up Finding and Conclusion No. V-2</u> – CPA has implemented measures to monitor and effectively reduce individual overtime levels.

Due to the potentially hazardous nature of working excessive amounts of overtime with pressurized gas infrastructure, the Audit Staff reviewed the amount of overtime individual field operations employees incurred annually. Exhibit V-4 shows the ten highest individual overtime levels incurred from 2012 through November 2016 on a rolling 12-month period. Continuing to use 600 hours as an upper limit, there is annual range from 2 to 5 individuals incurring excessive amounts of overtime in a given year. The Company has been able to reduce individual overtime by tracking and reviewing three overtime metrics based on a rolling 12-month period. The metrics identify and track individuals that have 1) worked 16+ hour day shift, 2) worked 98+ hours of overtime in any month and 3) 750+ hours of overtime in the last 12 months. These metrics were established in 2014 by CPA's parent, NiSource Inc., and are currently reviewed by field operations supervisors, managers, and the Vice President of Operations on a monthly basis. For the rolling 12-months through October 2016, there were only two employees that had worked a 16-hour or longer shift and three employees to work over 98 hours of overtime.

Exhibit V – 4
Columbia Gas of Pennsylvania, Inc.
Individual Overtime Percentages – Top 10
12 Months for the Calendar Years 2012 through 2015 and
January 1 through November 27, 2016

	2012		2013		2014		2015		NOV 2016	
Rank	OT Hrs	%OT	OT Hrs	%OT	OT Hrs	%OT	OT Hrs	%OT	OT Hrs	%OT
1	918.8	44.2%	713.3	34.3%	810.3	39.0%	744.5	35.8%	509.5	26.7%
2	686.0	33.0%	610.3	29.3%	707.5	34.0%	631.8	30.4%	508.0	26.6%
3	662.5	31.9%	607.3	29.2%	647.3	31.1%	564.8	27.2%	429.0	22.5%
4	618.0	29.7%	603.8	29.0%	634.5	30.5%	535.3	25.7%	426.0	22.3%
5	605.5	29.1%	600.3	28.9%	569.0	27.4%	521.5	25.1%	415.0	21.8%
6	565.3	27.2%	542.0	26.1%	534.8	25.7%	479.5	23.1%	414.0	21.7%
7	549.8	26.4%	539.0	25.9%	533.8	25.7%	476.8	22.9%	407.0	21.3%
8	533.3	25.6%	517.8	24.9%	528.0	25.4%	466.8	22.4%	404.0	21.2%
9	524.5	25.2%	501.8	24.1%	512.5	24.6%	463.0	22.3%	389.0	20.4%
10	503.0	24.2%	494.3	23.8%	506.0	24.3%	458.5	22.0%	385.0	20.2%
# EE > 600hrs	5		5		4		2		NA	
Straight Time Hours Total	382,100		463,874		521,622		590,349		577,325	
Overtime Hours Total	42,765		56,974		70,273		68,626		57,448	
Overtime as a Percentage of Straight Time TOTAL	11.2%		12.3%		13.5%		11.6%		10.0%	

Source: Data Request GO-06 and Auditor Analysis

It should also be noted that CPA has increased its field operations staffing levels, and the additional resources help in reducing excessive overtime levels in addition to utilizing overtime metrics. Exhibit V-4 also details an increase of straight time hours available by approximately 208,000 or 54.5% from 2012 to 2015. The increased availability is a result of CPA filling field operation vacancies to complete pending capital and maintenance activities. For more information on staffing levels, please review Follow-Up Finding and Conclusion No. V-3 regarding CPA's progress on filling vacancies for field operations related positions.

Through continuous monitoring of field operation hours and an increase of staffing, CPA has been able to reduce the number of field employees experiencing relatively high amounts of overtime. The Company should remain active in assessing any causes of excessive overtime hours and take necessary actions to control individual overtime levels.

<u>Follow-up Recommendation</u> – Continue to monitor overtime metrics established by NiSource to distribute overtime equitably.

Prior Recommendation – Expedite hiring of vacant operations related positions and timely conduct a study to determine needed staffing in anticipation of expanded capital projects and field operations retirements.

Prior Situation – As of November 2012, CPA had a high number of vacant field operations, engineering, and construction positions. As shown in Exhibit V-5, the Audit Staff identified 66 vacant, open or unfilled positions out of a total complement of 626 CPA operation related positions. Many of the vacant operations positions were related to the capital pipeline replacement projects. More specifically, employees were transferred from the Field Operations Department to newly created positions in the Construction Department in 2011 and 2012 as part of a reorganization effort to accelerate first generation pipe replacement. In addition to the number of open positions, it was noted that in the next five-year period (2013-2017), 247 Pennsylvania field operations employees would become eligible to retire. The Audit Staff suggested that the Company should begin to take steps to be prepared for these retirements in advance since technical positions often take time to be fully trained and achieve operator qualification to perform all duties, and CPA would be competing with the Marcellus Shale industry for attracting and retaining qualified individuals for these positions.

Exhibit V – 5
Columbia Gas of Pennsylvania, Inc.
Open Position Analysis
As of November 2012

Department	No. of Positions	Vacancies	Vacant (%)
Field Operations	444	30	**6.8%**
Construction	100	19	**19.0%**
Regulation	27	0	**0.0%**
Engineering	38	7	**18.4%**
Meter Reading	17	10	**58.8%**
TOTALS	**626**	**66**	**10.5%**

Source: 2013 Management Audit Exhibit VIII-18 and Auditor Analysis

Follow-up Finding and Conclusion No. V-3 – CPA has filled the vacancies identified in the 2013 Management Audit for the Field Operations, Construction, and Engineering departments.

On March 25, 2013, the Company instituted a NiSource sponsored hiring program labeled "Hire the Best" or HTB. The program objective is to hire applicants that demonstrate good attitudes, job aptitude, and the physical capacity to perform the job. Each applicant is assessed based on the following:

- Job Fit Analysis (external applicants only) – an online survey to determine an applicant's organizational fit in the Company.
- Aptitude Assessment – 200 multiple choice questions to gauge an applicant's

ability to make logical decisions, reading comprehension skills, ability to recognize and use small tools, and to perform basic math functions.

- Face to face interview – completed for internal and external candidates; post-interview(s) the Company offers the job to candidates.
- Pre-employment screening – drug test (as required by the U.S. Department of Transportation), Motor Vehicle Check, background check, physical capacity assessment.

Additionally, CPA routinely conducts staffing studies, or staffing requirement works plans, to determine expected workload and needed resources. The work plans are initially developed in the 2nd quarter and undergo multiple iterations until being finalized in the 4th quarter. The work load and resources are determined by variables such as, but not limited to, planned work, historical data, operational intelligence (e.g., technology, resource sharing, absence data, any process changes, etc.), capacity (i.e., the maximum amount of work the Company would be able to perform during a calendar year based on man-hours available, etc.), budget, and also emergency response coverage.

By completing staffing plans annually, CPA has been able to effectively plan for staffing requirements. Any identified vacancies are actively posted and applicants hired to fill positions through the HTB program. As shown in Exhibit V-6, there has been an increase in staffing by 11.8%, from 560 employees in 2012 to 622 employees in 2016. The Construction Department experienced the largest increase by hiring an additional 41 workers (49% increase) while the Engineering Department added 25 employees for the largest percentage increase in staffing (50% increase). Lastly, open positions dropped from 66 vacancies (10.5% of positions) in November 2012 to 11 vacancies (1.7% of positions) in November 2016.

Exhibit V – 6
Columbia Gas of Pennsylvania, Inc.
Open Position Analysis
As of November 2016

Department	No. of Positions	Vacancies	Vacant (%)
Field Operations	418	8	**1.9%**
Construction	123	2	**1.6%**
Engineering	56	0	**0.0%**
Meter Reading	2	0	**0.0%**
Regulation	34	1	**2.9%**
TOTAL	**633**	**11**	**1.7%**

Source: Data Request GO-7 and Auditor Analysis

<u>Follow-up Recommendation</u> – None.

Prior Recommendation – Improve dispatching methodologies to ensure that all emergency dispatches can be completed within 15 minutes of the emergency call receipt by implementing new or modifying existing procedures for call outs, stand by lists, shift work, and/or staffing levels.

Prior Situation – Dispatch time is defined as the time elapsed from when the customer call is received to when the call is assigned to a responder. The PUC's Gas Safety Division considers it a best practice to have a written explanation submitted to the Gas Safety Division when the dispatch time in a particular instance exceeds 15 minutes. Exhibit V-7 summarized the Audit Staff's compilation of available emergency dispatching statistics for the period January to October of 2012. For this period, there were 272 emergency dispatches over 15 minutes in duration, which were approximately 2.4% of total emergency dispatches. The 23 emergency dispatches taking longer than 15 minutes in duration that occurred during normal operating hours accounted for only 8.5% of the total dispatches for this period. Most dispatches that took more than 15 minutes occurred after normal business hours (i.e., overnight, weekends or holidays), with the weekends accounting for 121 or 44.5% of the occurrences during the period. Although the holiday calls covered the least number of hours and accounted for the lowest number of emergency dispatches (i.e., 12 or 4.4%); this category experienced the highest rate (or 17.9%) of dispatches to exceed 15 minutes.

Exhibit V – 7
Columbia Gas of Pennsylvania, Inc.
Available Dispatch Statistics over 15 Minutes
For the Months January through October 2012

Response Period	Total Dispatches > 15 min	Total Dispatches	% Dispatches > 15 min
Day	23	6,690	0.3%
Evening	77	2,433	3.2%
Overnight	39	548	7.1%
Weekend	121	1,394	8.7%
Holiday	12	67	17.9%
Totals	**272**	**11,132**	**2.4%**

Source: 2013 Management Audit Exhibit VIII-19

The Audit Staff recommended that CPA improve its methodology of dispatching responders such that all emergency dispatches can be completed within 15 minutes recognizing that unusual circumstances could warrant an exception. CPA was to determine if either the dispatching system needed enhancements or if proper staffing, modifying of shift work, or call out methodologies needed to be improved.

Follow-up Finding and Conclusion No. V-4 – The Company implemented a new resource management system to assist with personnel scheduling and emergency order dispatching; however, the Company has yet to fully realize the expected improvements in dispatch time performance.

The Company implemented and began using a new resource management system in order to simplify and improve the way CPA is able to respond and track dispatches in real-time. The software package was acquired from its vendor, ARCOS, in January 2013; which also provides ongoing support as-needed. The software package is a web-based application that is supported on Internet Explorer, Safari and Google Chrome. ARCOS assists in providing the ability to plan, dispatch, and report during emergency order dispatching; its capabilities enable CPA operators to perform, but not be limited to, the following:

- Allows operators to navigate between states and areas within those states;
- Allows operators to create, view, change, or manually respond to callouts, and to create messages for callouts;
- Provides support for incident response team notification, acknowledgement of message delivery, and the ability to create and view notifications;
- Contains data that defines employees, ability to add new employees as well as update and manage data such as phone numbers, job classifications, and seniority date for existing employees, change security settings, reset passwords, and create manual charges;
- Provides several weekly and daily views of employee shifts, working status, and schedule exemptions, used in determining employee availability for callout;
- Allows the ability to add, update and maintain employees within each roster and manual adjustments of callout responses and overtime hours;
- Allows operators to create, display, and print hardcopy reports or export data for additional manipulation;
- Provides access to view changes made to employee status and records;
- Provides shift management, including the ability to add, maintain, and delete shifts that are assigned to employees;
- Enables the ability to administer security settings, location access, banner messages, pager setup, holidays, vehicle types and crew creation; and
- Provides a central location to keep a list of company contact number readily available for operators.

As expected with the implementation of any new major software package, the Company will have to address software implementation issues and train operators before experiencing expected results. Exhibit V-8 details CPA's dispatch statistics for the year 2012 through November 2016. For the years 2013 and 2014, CPA realized an increase in dispatches exceeding 15 minutes. There was a decrease in dispatches exceeding 15 minutes in 2015 of 342 dispatches compared to 452 and 512 dispatches in 2013 and 2014, respectively. Moreover, data through November 18, 2016 showed a low of only 117 occurrences or 1.1% of dispatches taking longer than 15 minutes.

Exhibit V – 8
Columbia Gas of Pennsylvania, Inc.
Available Dispatch Statistics over 15 Minutes
12 Months for Calendar Years 2012 through 2015 and
January 1 through November 18, 2016

		2012	2013	2014	2015	2016 YTD
Day	Total	7,974	8,243	8,394	7,758	6,078
	>15 Minutes	25	17	28	23	17
		0.31%	0.21%	0.33%	0.30%	0.27%
Evening	Total	3,088	2,172	3,333	3,064	2,295
	>15 Minutes	82	121	165	102	45
		2.6%	5.5%	4.9%	3.3%	1.9%
Holiday	Total	118	140	102	107	49
	>15 Minutes	16	22	13	6	1
		13.5%	15.7%	12.7%	5.6%	2.0%
Overnight	Total	688	732	717	740	512
	>15 Minutes	39	61	83	45	15
		5.6%	8.3%	11.5%	6.0%	2.9%
Weekend	Total	1,946	2,216	2,250	2,174	1,576
	>15 Minutes	131	231	223	166	39
		6.7%	10.4%	9.9%	7.6%	2.4%
TOTALS	**Total**	**13,814**	**13,503**	**14,796**	**13,843**	**10,500**
	>15 Minutes	**293**	**452**	**512**	**342**	**117**
		2.1%	**3.3%**	**3.5%**	**2.5%**	**1.1%**

Source: Data Request GO-09 and Auditor Analysis

The Company's improvement can be directly attributed to the implementation of ARCOS to aid operators in selecting and assigning field operations employees to emergency orders. Additionally, the increase of available field operations employees has subsequently provided operators with more resources to quickly dispatch orders. In cases where a dispatch is delayed, after action reports are created and reviewed between dispatch leadership as well as field operations manager to determine a reason and if any process modifications are needed. CPA should continue to strive to improve its methodology of dispatching responders such that all emergency dispatches can be completed within 15 minutes of the emergency call taking place.

Follow-up Recommendation – Continue to conduct periodic reviews of dispatch time performance to monitor the effectiveness of ARCOS and make modifications as needed to ensure emergency dispatches can be completed within 15 minutes.

VI. EMERGENCY PREPAREDNESS

Background – The Focused Management and Operations Audit of Columbia Gas of Pennsylvania, Inc. (CPA or Company), conducted by the Management Audit Division (Audit Staff) of the Pennsylvania Public Utility Commission (PUC or Commission) and released on August, 15, 2013, at D-2012-2290672 did not contain any recommendations in the Emergency Preparedness chapter. Although the Audit Staff rated this functional area as meets expected performance level, it was deemed prudent to perform an updated review of CPA's compliance with PUC regulations at 52 Pa. Code § 101 (Chapter 101) regarding physical security, cyber security, emergency response, and business continuity plans as part of the audit.

In order to protect infrastructure within the Commonwealth of Pennsylvania and ensure safe, continuous and reliable utility service, effective since June 2005, PUC regulations at 52 Pa. Code § 101 (Chapter 101) require all jurisdictional utilities to develop and maintain written physical security, cyber security, emergency response, and business continuity plans. Furthermore, in accordance with 52 Pa. Code § 101.1, all jurisdictional utilities are to annually submit a Self-Certification Form to the Commission documenting compliance with Chapter 101. This form, available on the PUC website, is comprised of 13 questions as shown in Exhibit VI-1.

Exhibit VI - 1
Pennsylvania Public Utility Commission
Public Utility Security Planning and Readiness Self Certification Form

Item No.	Classification	Response (Yes–No–N/A*)
1	Does your company have a physical security plan?	
2	Has your physical security plan been reviewed in the last year and updated as needed?	
3	Is your physical security plan tested annually?	
4	Does your company have a cyber security plan?	
5	Has your cyber security plan been reviewed in the last year and updated as needed?	
6	Is your cyber security plan tested annually?	
7	Does your company have an emergency response plan?	
8	Has your emergency response plan been reviewed in the last year and updated as needed?	
9	Is your emergency response plan tested annually?	
10	Does your company have a business continuity plan?	
11	Does your business continuity plan have a section or annex addressing pandemics?	
12	Has your business continuity plan been reviewed in the last year and updated as needed?	
13	Is your business continuity plan tested annually?	

* Attach a sheet with a brief explanation if N/A is supplied as a response to a question.
Source: Public Utility Security Planning and Readiness Self-Certification Form, as available on the PUC website at http://www.puc.state.pa.us/general/onlineforms/pdf/Physical_Cyber_Security_Form.pdf.

While conducting our Management Efficiency Investigation, the Audit Staff reviewed the most recent (i.e., 2015) Self Certification Forms submitted by CPA to determine the status of their responses. Although CPA maintains its own specific emergency manuals; there are services performed in conjunction with employees of CPA's parent company, NiSource Inc., most of which is information technology, cyber security, and physical security assistance. Our examination of CPA's emergency preparedness included a review of the physical security plans, cyber security plans, emergency response plans, business continuity plans, and associated security measures. All manuals were deemed complete and appropriate. In addition, the Audit Staff performed inspections at a sample of the CPA facilities; including headquarters and some field locations outside of office buildings. Due to the sensitive nature of the information reviewed, any specific information is not revealed in this report but rather the generalities of the information reviewed are summarized.

To protect physical and cyber security, the measures used by CPA include the following:

- Physical access to buildings, service centers, garages, and maintenance areas is restricted through various security measures.
- Information and Operational Technology network access varies across the internet, intranet and software applications. The amount of access permitted is determined by an employee's job description and title.
- CPA utilizes multiple types of clustered industry standard firewalls to secure and protect its critical cyber infrastructure.
- Cyber risk and vulnerability assessments are conducted periodically.

CPA tests its Physical Security, Cyber Security, Emergency Operations and Business Continuity Plans at least annually and, in some instances, multiple times a year. A review is completed to ensure each plan has been tested, results of testing have been evaluated, and the necessary corrective measures have been taken as necessary. The plans are updated accordingly following the testing and review of the individual plan.

Findings and Conclusions

Our examination of the CPA's Emergency Preparedness included a review of the physical security plan, cyber security plan, emergency response plan and business continuity plan, vulnerability assessment and all associated security measures. Based on our review of CPA's emergency preparedness efforts, no evidence came to our attention that would lead the Audit Staff to conclude that the areas reviewed were not being addressed adequately.

Recommendation – None.

VII. ACKNOWLEDGEMENTS

We wish to express our appreciation for the cooperation and assistance given to us during the course of this Management Efficiency Investigation by the officers and staff of Columbia Gas of Pennsylvania, Inc.

This audit was conducted by Eric McKeever, Bryan Borres, Timothy Kerestes, and Craig Bilecki of the Management Audit Staff of the Bureau of Audits.

PENNSYLVANIA PUC

PUBLIC UTILITY COMMISSION