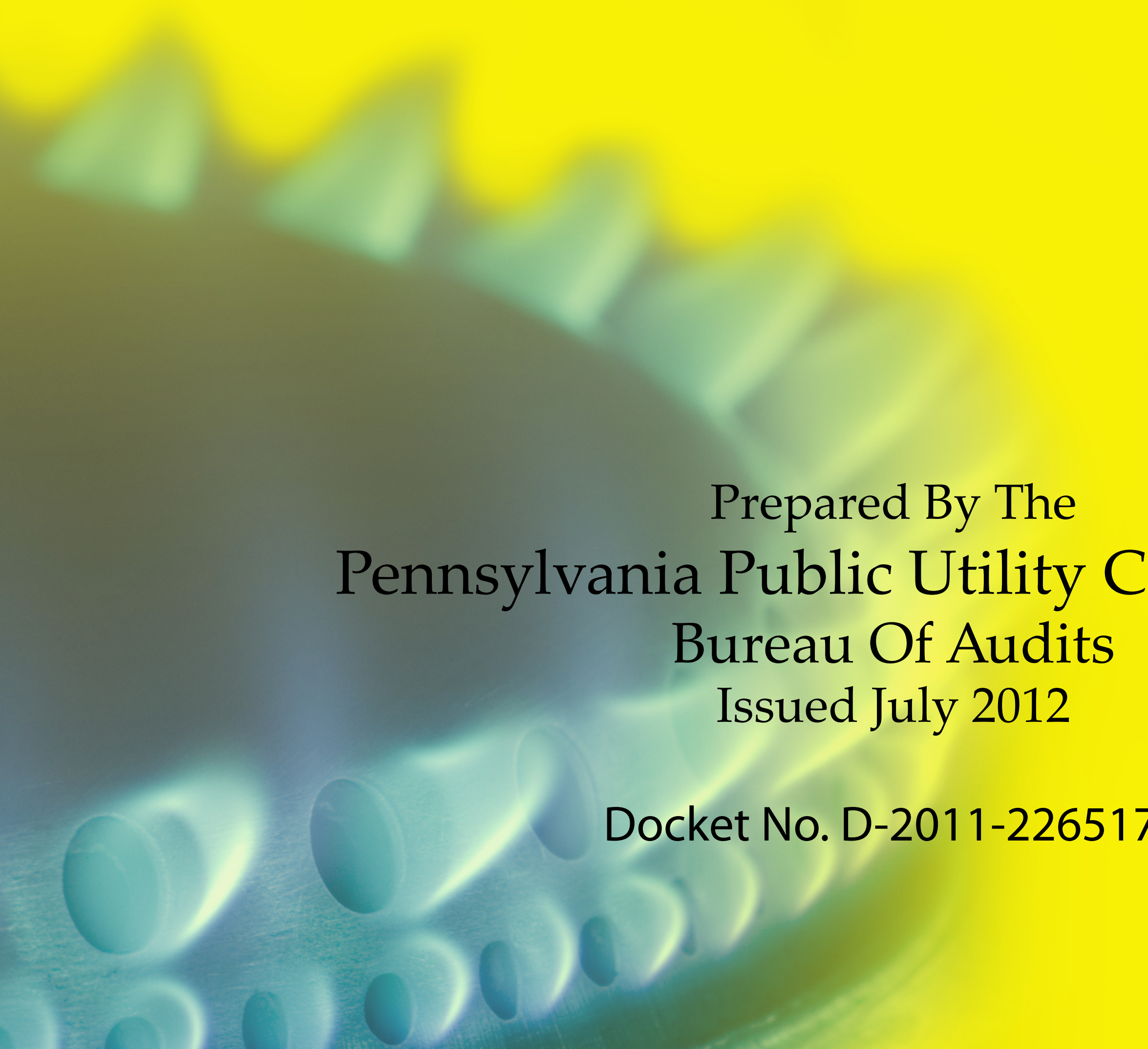
Philadelphia Gas Works

Management Efficiency Investigation Evaluating the Implementation of Selected Recommendations from the 2008 Stratified Management and Operations Audit Report



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Bureau Of Audits

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PHILADELPHIA GAS WORKS
MANAGEMENT EFFICIENCY INVESTIGATION

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I. INTRODUCTION

A. Background

On August 30, 2007, the Pennsylvania Public Utility Commission's (PUC or Commission) accepted the Schumaker & Company (Schumaker or Consultant) proposal to perform a Stratified Management and Operations Audit of Philadelphia Gas Works (PGW). Schumaker subsequently completed its work, and in December 2008, issued a final report containing 93 recommendations for improvement. PGW submitted its Implementation Plan on January 22, 2009, indicating that 88 recommendations were accepted, 3 recommendations were accepted in part, and 2 recommendations were rejected. On February 5, 2009, at D-2009-2086453, the Commission made both the audit report and Implementation Plan public and directed PGW to:

- Proceed with its January 2009 Implementation Plan.

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

Since February 2009, PGW has submitted three Implementation Plan updates as requested by the Commission to ascertain the Company's progress in implementing the recommendations contained in the previous Stratified Management and Operations Audit report. Based on a review of these updates, the Management Audit Staff of the PUC's Bureau of Audits (Audit Staff) elected to conduct a Management Efficiency Investigation (MEI) of PGW's progress implementing 55 of the 93 original recommendations. Specific items of management effectiveness and operation 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 PGW's efforts to implement certain recommendations contained in the Stratified Management and Operations Audit report released in February 2009. The scope of this evaluation was limited to PGW's efforts in implementing 55 prior management audit recommendations in the functional areas of:

- Executive Management and Human Resources
- Corporate Governance
- Financial Management
- System Reliability Performance
- Emergency Preparedness
- Information Technology
- Procurement Services and Materials Management
- Customer Service
- Fleet Management

- Diversity

Additionally, the Audit Staff deemed it prudent to review PGW's compliance with PUC regulations at 52 Pa. §101 regarding its physical security, cyber security, emergency response, and business continuity plans.

C. Approach

This MEI was performed by the Management Audit Staff of the PUC's Bureau of Audits (Audit Staff). Actual fieldwork began on November 7, 2011 and continued through February 22, 2012. The fact gathering process included:

- Interviews with PGW personnel.
- Analysis of selected PGW records, documents, reports, and other information for the period 2006 to 2011.
- Visits to select Company facilities.

II. SUMMARY OF MANAGEMENT EFFECTIVENESS AND OPERATING EFFICIENCY

The Audit Staff found that Philadelphia Gas Works (PGW) has effectively or substantially implemented 31 of the 55 prior management audit recommendations reviewed and has taken some action on the 24 other recommendations. However, only a total of 52 prior recommendations are presented in the report as six prior recommendations and prior situations have been combined for report purposes into three prior recommendations and follow-up findings and conclusions due to their similarity as noted in Chapters V, IX, and X. Among the more notable improvements achieved by the management of PGW are:

- Completed implementation of Business Transformation (BT) initiatives in Customer Affairs, Field Operations, and Supply Chain functions that resulted in realized annual savings of approximately $24.2 million. Included in this total are savings identified as part of the following PGW programs and departmental initiatives: Customer Account Write-Off Reactivation - $2,400,000, Risk Based Collections - $536,000, Landlord Cooperation - $6,423,000, Lien Re-Write - $11,478,000, Soft Off - $1,800,000, Field Operations - $1,100,000, and Supply Chain – $900,000. Furthermore, PGW has projected additional savings of approximately $21 million for fiscal year 2012.
- Increased inventory turnover from 1.68 times in 2007 to 2.15 times in 2011, resulting in an approximate $2.03 million one-time reduction in overall inventory from 2006 to 2011 by reducing obsolete inventory which also resulted in a $304,000 reduction in annual inventory carrying costs.
- Integrated the Procurement and Materials Management functions and developed a Department survey and savings tracker to document the Supply Chain Group’s performance and contributions to the PGW organization with documented savings as outlined in the BT initiative savings.
- Entered into a purchasing consortium agreement with the City of Philadelphia that allows PGW to realize the benefits of increased purchasing.
- Became more proactive in its theft of gas program resulting in savings ranging from $203,000 to $344,000 from 2008 to 2011.
- Expanded its use of automated information management systems to further computerize various functions resulting in savings as outlined as part of the BT initiative.
- Eliminated incumbent hosting services by retiring its mainframe computer resulting in annual savings of $345,000.
- Centralized the planning, scheduling, performance monitoring and analysis functions for its field forces that are projected to save approximately an additional $1.2 million per year.
- Addressed long term business recovery and pandemic situations into its Business Continuity Plans and has incorporated each department into the planning process.

- Developed and instituted a process to return employees to work through the Employee Utilization Committee.
- Streamlined processes within the budget preparation and approval process by increasing collaboration between PGW, the Philadelphia Gas Commission and the Public Advocate, which has improved the timing of the capital and operating budget approvals.
- Began staffing its gas control center with at least two gas controllers on all shifts year round.
- Established a routine long range planning process for the Information Services (IS) organization, finalized IS policies and procedures, expanded the involvement of Quality Assurance analysts into all phases of technology projects, began to track all major technology projects, and established Service Level Agreements with all major IS customers.
- Began filing annual diversity reports with the PUC, starting in 2010.

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

- Complete the automation of the monthly fleet preventative maintenance schedule in a timely manner which will reduce unneeded work, allow time to be spent on value added tasks and avoid costs of approximately $40,800 annually.
- Evaluate internal fleet services and their costs, compared to those provided by outside contractors prior to replacing mechanics that are expected to retire in the near future.
- Consolidate warehouse facilities to achieve projected annual savings of approximately $5 million from increased productivity and reduced operating and capital costs.
- Improve material forecasting techniques and complete the implementation of the forecasting module in order to reduce the time and effort needed to create monthly material forecasts.
- Track, quantify and trend cost recovery efforts related to the gas theft program.
- Monitor and assess absenteeism root causes, take corrective action to reduce absenteeism, and separately track call center absenteeism.
- Modify the Internal Audit program structure by developing annual audit plans based on annual risk assessments, standardizing work plans and internal audit reports, and ensuring that the Philadelphia Facilities Management Corporation Audit Committee meets with the Internal Audit Director at least four times a year.

Exhibit II-1 summarizes the 52 prior recommendations presented in the report and the Audit Staff's follow-up findings, conclusions, and recommendations.

PHILADELPHIA GAS WORKS
MANAGEMENT EFFICIENCY INVESTIGATION
SUMMARY OF DECEMBER 2008 MANAGEMENT AUDIT RECOMMENDATIONS AND STAFF'S FOLLOW-UP FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

December 2008 Management Audit Recommendations	Originally Targeted Completion Date	MEI Finding Number	Staff's Follow-up Findings And Conclusions as of February 22, 2012	Staff's Follow-up Recommendations
III. EXECUTIVE MANAGEMENT AND HUMAN RESOURCES				
Implement management incentive compensation.	4th Quarter FY 2009	III-1	PGW has developed an incentive compensation program; however, no action to approve and fund the program has been taken by the Philadelphia Facilities Management Corporation (PFMC).	Continue efforts to encourage the PFMC to approve and fund the ICP Plan.
Assess root causes of absenteeism and implement appropriate Human Resources (HR) and Organizational Development (OD) strategies to address these causes.	4th Quarter FY 2009	III-2	Despite efforts to better track and analyze absenteeism, it has escalated in recent years.	Monitor and assess absenteeism root causes and take corrective action to reduce absenteeism to at least 2006 levels.
Develop a comprehensive return-to-work process, including metrics, for employees with medical restrictions.	1st Quarter FY 2010	III-3	PGW has developed and instituted a process to return employees to work.	None.
Appoint a return-to-work coordinator as part of the Absence control group in Human Resources.	4th Quarter FY 2009	III-4	PGW's HR and OD personnel have assumed a more active role in performing return-to-work duties.	None.

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III. EXECUTIVE MANAGEMENT AND HUMAN RESOURCES (CONTINUED)				
Implement a comprehensive institutional knowledge loss risk assessment and workforce planning process.	2nd Quarter FY 2014	III-5	Although efforts have been made to address the loss of institutional knowledge, they have been somewhat concentrated.	Expand knowledge loss risk assessment and workforce planning at PGW.
IV. CORPORATE GOVERNANCE				
Streamline the corporate governance processes of PGW.	Rejected	IV-1	No efforts to streamline the corporate governance processes of PGW have taken place.	Initiate efforts to encourage the PFMC, Philadelphia Gas Commission and City Council to make changes to streamline PGW's corporate governance.

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IV. CORPORATE GOVERNANCE (CONTINUED)				
Develop an ongoing Ethics training program.	4th Quarter FY 2009	IV-2	Mandatory ethics training is provided to all exempt employees on a bi-annual basis; however, bargaining unit employees are not required to attend ethics training.	Develop an Ethics Policy to be applicable to bargaining unit employees and, as necessary, work with the union to facilitate its use. Provide mandatory ethics training to all PGW employees on a periodic basis that enables them to identify unethical behavior and instructs them how to report violations.
Strengthen the Board Audit Committee function.	3rd Quarter FY 2009	IV-3	Although some progress has been made, additional measures need to be taken to further strengthen the PFMC Audit Committee function.	Adhere to all duties and responsibilities enumerated in the Audit Committee Charter.
Expedite the pursuit of the Business Transformation (BT) project.	4th Quarter FY 2010	IV-4	Considerable progress has been made in carrying out BT project initiatives.	Continue timely implementation of the remaining BT project initiatives.

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V. FINANCIAL MANAGEMENT				
Update the payroll system cost analysis.	December 2008	V-1	PGW did not update its initial payroll system cost analysis; however, it has retired its mainframe computer from service and is now realizing the anticipated cost savings.	None.
Improve the timing of the budget preparation and approval process	1st Quarter FY 2010	V-2	The timing of PGW's budget preparation and approval process has improved.	None.
Modify the Internal Audit (IA) program structure by addressing all noted deficiencies and implement a process to ensure that the IA Director meets quarterly with the Board's Audit Committee.	3rd Quarter FY 2009	V-3	PGW has not made significant improvements to its Internal Audit function nor has a process been established to ensure that the IA Director meets with the PFMC Audit Committee on a quarterly basis.	Modify the IA program structure by developing annual audit plans based on annual risk assessments, standardizing work plans and internal audit reports, and ensuring that the Audit Committee meets with the IA Director at least four times a year.

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VI. SYSTEMS RELIABILITY PERFORMANCE				
Provide at least two controllers on all shifts for the Gas Control Center.	2nd Quarter FY 2010	VI-1	PGW staffs its gas control center with at least two gas controllers at all times.	None.
Take steps to plan for the retirements that could have a major impact on the ability to staff the Gas Control Center.	2nd Quarter FY 2010	VI-2	PGW is hiring additional staff in order to plan for the potential retirement of senior gas controllers.	None.
Institute a program to perform vendor credit checks in order to qualify for a NASEB (Natural Gas Approved Standardized Buy/Sell) purchasing agreement, and to perform credit evaluations on a regular basis for existing suppliers.	1st Quarter FY 2010	VI-3	PGW has not finalized its program to perform vendor checks for new and existing gas suppliers.	Finalize the program for performing periodic credit checks on new and existing gas suppliers.
Enhance the FSD and Distribution business processes through more computerization.	4th Quarter FY 2009	VI-4	PGW has expanded its use of Automated Information Management System (AIMS) to the Distribution Department and has computerized various functions within FSD and the Distribution Department.	None.

December 2008 Management Audit Recommendations	Originally Targeted Completion Date	MEI Finding Number	Staff's Follow-up Findings And Conclusions as of February 22, 2012	Staff's Follow-up Recommendations
VI. SYSTEMS RELIABILITY PERFORMANCE (CONTINUED)				
Centralize all field force planning, scheduling, performance monitoring and analysis functions.	4th Quarter FY 2009	VI-5	PGW has centralized the planning, scheduling, performance monitoring and analysis functions of its field forces.	None.
Set more aggressive performance targets on gas leak response.	4th Quarter FY 2009	VI-6	PGW has increased its leak response target to 97% within 60 minutes.	None.
Build a stronger gas theft of service program.	1st Quarter FY 2010	VI-7	PGW has become more proactive in its theft of gas program.	Track, quantify, and trend cost recovery efforts related to the gas theft program.
Reassess PGW's future field operation staffing levels based on its needs taking into consideration pending retirements.	Ongoing	VI-8	PGW evaluates staffing levels and workloads continuously and also tries to plan for retirements.	None.

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VII. EMERGENCY PREPAREDNESS				
Keep to the desired schedule for disaster recovery tests, including frequent use of comprehensive tests that are fully documented.	2nd Quarter FY 2009	VII-1	PGW performs yearly disaster recovery tests and documents the controls, results, and recommendations.	None.
Incorporate disaster recovery into business-continuity plan process and expand its focus.	4th Quarter FY 2009	VII-2	PGW has incorporated each department, including Information Services, into its business continuity planning and has addressed long term business recovery and pandemic situations.	None.
		VII-3	PGW has multiple ways for its employees to remotely access its computer systems.	Limit remote access to PGW's computer systems using only highly secured methods.
VIII. INFORMATION TECHNOLOGY				
Formalize a regularly conducted, long range planning process.	4th Quarter FY 2009	VIII-1	PGW has established a routine long range planning process for the Information Services (IS) organization and has compiled an up-to-date IS strategic plan.	None.

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VIII. INFORMATION TECHNOLOGY (CONTINUED)				
Complete existing IS policies and procedures and expand focus to include internal IS guidelines.	4th Quarter FY 2009	VIII-2	PGW has finalized and distributed its IS policies and procedures and created extensive IS organization orientation materials that outline the internal guidelines, policies and procedures.	None.
Expand the purpose of the Quality Assurance (QA) organization to become actively involved in all phases of major technology projects.	4th Quarter FY 2009	VIII-3	PGW has modified its Project Development Methodology to involve QA analysts into all phases of technology projects.	None.
Use Microsoft Project Server to effectively track activities, milestones, and resources for all major technology projects.	July 2008	VIII-4	PGW has implemented the Microsoft Project Server to track all major technology projects.	None.
Establish Service Level Agreements (SLAs) with all major IS customers	1st Quarter FY 2010	VIII-5	Comprehensive SLAs have been established with all major IS customers.	Expedite completion of the ongoing review of the IS cost chargeback methodology and update in a timely manner, as appropriate.

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IX. MATERIALS MANAGEMENT AND PROCUREMENT SERVICES				
Identify operations and functions that could be better integrated between the Procurement Department and the Materials Management Department.	3rd Quarter FY 2010	IX-1	PGW has integrated the operations of the Procurement and Materials Management Departments.	None.
Initiate a formal material demand requirements forecasting program in the Procurement Department.	4th Quarter FY 2010	IX-2	PGW is working to develop a comprehensive forecasting model.	Strive to improve forecasting techniques and timely complete the implementation of the material usage forecaster model.
Change the focus of the Procurement Department from being primarily an administrative group to being a proactive procurement organization that is actively involved in all aspects of the purchasing process.	2nd Quarter FY 2011	IX-3	The Procurement Group is actively involved in many aspects of the purchasing process.	None.

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IX. MATERIALS MANAGEMENT AND PROCUREMENT SERVICES (CONTINUED)				
Develop a program to perform regular surveys of the operating department clients of the PGW Procurement Department concerning the performance of the largest vendors and any other vendors with which problems have been experienced in the past.	4th Quarter FY 2010	IX-4	PGW's Supplier Performance Management Program is not complete or fully implemented.	Finalize the development and implementation of the vendor scorecards for both goods and services.
Develop a program to collect and use metrics that are related to individual buyer performance.	2nd Quarter FY 2010	IX-5	PGW has developed an operating department client survey to track the overall performance of the Supply Chain Department, including buyer performance.	None.
Develop a program to collect metrics related to the savings or contributions to PGW's profitability that are achieved through the work of the Procurement Department.	3rd Quarter FY 2010	IX-6	PGW's Supply Chain Department tracks savings and contributions as part of the Supply Chain Initiative.	None.

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IX. MATERIALS MANAGEMENT AND PROCUREMENT SERVICES (CONTINUED)				
Explore the available options for creating a purchasing consortium arrangement with the City of Philadelphia Procurement Department.	4th Quarter FY 2010	IX-7	PGW has entered into a purchasing consortium arrangement with the City of Philadelphia.	Develop a procedure for tracking the savings associated with the purchases made through city and state contracts.
Initiate increased efforts to reduce the level of inventory in Materials Management Department (MMD) storerooms: and initiate a focused effort to increase the level of inventory turnover in the MMD storerooms in aggregate.	4th Quarter FY 2010	IX-8	PGW has reduced its average inventory levels and increased inventory turnover from 2007 to 2011.	None.
		IX-9	PGW does not separately track emergency stock inventory levels.	Initiate efforts to routinely identify and track the value of emergency stock levels.
Conduct an analysis to determine the economic and operational benefits that would be gained from the consolidation of the MMD storerooms.	2nd Quarter FY 2010	IX-10	PGW has performed a comprehensive evaluation for the consolidation of its material storerooms.	Promptly proceed with the warehouse consolidation project once approval is received from the City of Philadelphia.

December 2008 Management Audit Recommendations	Originally Targeted Completion Date	MEI Finding Number	Staff's Follow-up Findings And Conclusions as of February 22, 2012	Staff's Follow-up Recommendations
IX. MATERIALS MANAGEMENT AND PROCUREMENT SERVICES (CONTINUED)				
Initiate efforts to reduce the number of employees in the MMD.	4th Quarter FY 2012	IX-11	PGW has not reduced the number of Materials Management Group (MMG) employees.	Initiate efforts to reduce the number of MMG Employees through improved efficiencies.
Develop formal procedures to guide and govern the day to day operations of the MMD storerooms.	3rd Quarter FY 2010	IX-12	No comprehensive written materials management function policies and procedures exist to guide the daily operations in the Supply Chain Department.	Develop a comprehensive policies and procedures manual to guide the daily operations of the Supply Chain Department.
Conduct an analysis to determine if it would be cost and operationally effective to outsource the vehicle parts procurement and inventory function.	3rd Quarter FY 2010	IX-13	PGW has explored the use of vehicle parts vendor partnerships and initiated efforts to eliminate obsolete vehicle parts inventory and redundancies in its vehicle parts inventory.	Include the flexibility to partially or fully outsource the vehicle parts procurement and inventory function in the next union bargaining agreement negotiation.

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X. CUSTOMER SERVICE				
Hire part time Customer Service Representatives (CSRs) and implement variable staffing levels based on predicted call volume.	3rd Quarter FY 2009	X-1	PGW evaluated and modified its operating practices to adequately staff the call centers based on projected call volume.	None.
Investigate methods to improve CSR selection and retention.	1st Quarter FY 2010	X-2	PGW has developed and implemented strategies to improve the selection and retention of CSRs.	None.
Develop a method for measuring actual call center turnover rates and include CSR turnover as a key performance indicator (KPI) for the call center.	3rd Quarter FY 2009	X-3	PGW has developed a monthly report to measure and track call center employee turnover.	None.
Assess the root causes of absenteeism and address the quality of work/life issues in the call center in conjunction with the enforcement of absence policies.	1st Quarter FY 2010	X-4	PGW has conducted an analysis into the root cause of absenteeism.	Develop a method to track absenteeism separately for the call center and perform periodic absenteeism root cause analyses to facilitate efforts to reduce absenteeism levels.

December 2008 Management Audit Recommendations	Originally Targeted Completion Date	MEI Finding Number	Staff's Follow-up Findings And Conclusions as of February 22, 2012	Staff's Follow-up Recommendations
X. CUSTOMER SERVICE (CONTINUED)				
Provide privacy for Low Income Home Energy Assistance Program (LIHEAP) applicants.	December 2008	X-5	PGW has modified the areas where customers receive LIHEAP assistance.	None.
Demonstrate, periodically, to the PaPUC that the Parts and Labor Program is self-supporting.	4th Quarter FY 2009	X-6	PGW conducts a cost/benefit analysis of its Parts and Labor Program annually.	None.
Reevaluate the use of the soft off program at PGW.	1st Quarter FY 2010	X-7	PGW has automated the processes behind its soft off program.	None.
XI. FLEET MANAGEMENT				
Develop a specific human resources plan to ensure that the correct number of experienced replacements will be available to take over for the mechanics who will be retiring in the next few years.	3rd Quarter FY 2010	XI-1	PGW has taken the steps necessary to ensure experienced mechanics are available and adequately trained to fill positions as retirements occur.	None.

December 2008 Management Audit Recommendations	Originally Targeted Completion Date	MEI Finding Number	Staff's Follow-up Findings And Conclusions as of February 22, 2012	Staff's Follow-up Recommendations
XI. FLEET MANAGEMENT (CONTINUED)				
Use information collected from outside contractors to make decisions on which Fleet Operation activities can best be performed by outside contractors and what areas of Fleet Operations need to be improved to be comparable with outside contractors.	2nd Quarter FY 2010	XI-2	PGW has not gathered information in sufficient detail from outside contractors to gauge what areas of Fleet Operations need to be improved or could more cost effectively be performed by outside contractors.	Evaluate internal fleet service costs in comparison to outside contractor services prior to replacing mechanics as retirements occur.
Initiate a concerted effort to automate the production of the monthly preventative maintenance schedule, thereby resulting in manpower time savings.	1st Quarter FY 2010	XI-3	The Preventative Maintenance Program is not yet fully automated.	Complete the automation of the monthly preventative maintenance schedule.

December 2008 Management Audit Recommendations	Originally Targeted Completion Date	MEI Finding Number	Staff's Follow-up Findings And Conclusions as of February 22, 2012	Staff's Follow-up Recommendations
XII. DIVERSITY				
Expand PGW's diversity program beyond compliance-oriented activities.	3rd Quarter FY 2010	XII-1	PGW has continued to introduce diversity initiatives that encourage and engage employees; however, it has not added initiative's focused on leveraging diversity as a business advantage.	Identify and measure the results of ongoing diversity programs and connect them in a comprehensive strategy to leverage diversity as a business advantage designed to enhance PGW's overall performance.
Begin filing comprehensive diversity reports to the PaPUC annually.	1st Quarter FY 2010	XII-2	PGW files an annual diversity report with the PUC.	None.
Explore the use of spend targets in the Procurement Department's performance objectives.	2nd Quarter FY 2010	XII-3	PGW continues to set Disadvantage Business Enterprise (DBE) participation goals by percentage of aggregate spend company-wide rather than setting specific spend targets for the Procurement Department's Director or its buyers.	Establish and track progress towards the Procurement Department DBE participation goals on a quarterly basis.

III. EXECUTIVE MANAGEMENT AND HUMAN RESOURCES

Background – The Stratified Management and Operations Audit of Philadelphia Gas Works (PGW or Company), conducted by the consulting firm Schumaker & Company, released by the Pennsylvania Public Utility Commission (PUC or Commission) on February 5, 2009, at D-2009-2086453, contained seven recommendations within the Executive Management and Human Resources Chapter. In this chapter, five prior recommendations and prior situations are reviewed and five follow-up findings and three recommendations are presented.

Prior Recommendation – Implement management incentive compensation.

Prior Situation – PGW had developed a well-designed performance management process; however, it lacked the ability to tie pay to performance and create strong incentives for attracting and retaining top executive talent.

The Philadelphia Facilities Management Corporation (PFMC) Board of Directors (Board) approved an incentive compensation program in August 2005. In September 2005, PGW provided a one-time incentive compensation payment to 55 top managers in lieu of a base wage increase. However, the incentive compensation payments did not raise a manager's base pay and, therefore, would not be compounded by future base salary increases. Consequently, managers were required to perform at a very high level in order to maintain a particular level of compensation. Maximum incentive payments were set based on each Management Team member's pay grade. The actual amount of the incentive payment was primarily based upon the individual's performance in the prior fiscal year (FY), as documented in the employee's performance evaluation.

Subsequent to the September 2005 incentive compensation payout, the Board had not approved any incentive compensation payouts for 2006 and 2007.

Follow-up Finding and Conclusion No. III-1 – **PGW has developed an incentive compensation program; however, no action to approve and fund the program has been taken by the PFMC.**

As of the current fiscal year, (i.e., September 1, 2011 to August 31, 2012) PGW management employees have been working without a raise for five consecutive fiscal years (i.e., 2007-2011). In 2009, PGW developed an Incentive Compensation Program for Non-Represented Employees (ICP Plan). The ICP Plan is a performance based plan covering all management employees. The ICP Plan is based on achievement of enterprise goals including efficiency improvements, expense reductions, and increased revenues. An established PGW Performance Management Program enumerates corporate and departmental goals, individual goals and career development plans, and performance reviews. An employee's goals are designed to support the Company's enterprise goals. The ICP awards compensation based on the completion of both enterprise goals and individual goals.

Approval of the ICP Plan and related funding lies with the PFMC. The ICP Plan was presented to the PFMC in the summer of 2009; however, approval to implement it was never granted. PGW management indicated that PGW's financial constraints are a likely reason.

As of January 2012, due to recent and pending retirements, PGW was in the process of conducting an ongoing search for a Chief Operating Officer and Chief Financial Officer. Having an ICP Plan in place and being able to offer incentives based on company performance every year would aid in attracting and retaining top management talent.

Follow-up Recommendation No. III-1 – Continue efforts to encourage the PFMC to approve and fund the ICP Plan.

Prior Recommendation – Assess root causes of absenteeism and implement appropriate Human Resources and Organizational Development strategies to address these causes.

Prior Situation – PGW had made substantial progress in controlling unscheduled employee absences with sick leave usage declining by 30% between 2000 and 2006. Changes to the union contract included reducing the amount of time an employee could accumulate in a sick leave bank.

PGW began utilizing an absence control staff, including investigators that documented abuse of employee leave programs. Furthermore, in May 2007, PGW implemented a new absence policy that clearly delineated Company and employee responsibilities that included:

- Requiring employees to give advance notice of absences when possible or to notify their supervisor when an unexpected absence occurs.
- Requiring employees to provide medical certification for sick leave absences of three or more days for non-union employees.
- Imposing progressive discipline for violations of the absence policy.

Despite PGW's efforts to reduce unnecessary time off, the average number of days of absence only leveled off and then actually increased for non-union employees. The rise was due primarily to the increase in Family Medical Leave Act (FMLA) related usage.

While any absence that was in violation of PGW's policy may be viewed as abuse, Schumaker & Company felt that the drivers in general behind such absences were related to child care issues, personal problems, poor working conditions, and ineffective supervisory practices. To better understand the issues, PGW intended to conduct an employee survey in areas where absenteeism was high. In addition, PGW had considered a work/family support program to help employees manage family issues and supervisory interaction with employee skill issues.

Follow-up Finding and Conclusion No. III-2 – Despite efforts to better track and analyze absenteeism, it has escalated in recent years.

In January 2009, PGW began utilizing the automated Time and Labor Management System (TLM) to track employee attendance. The TLM provides functionality for scheduling employees, capturing and recording hours worked, management of attendance leave banks, and the capture and distribution of labor hours to operating accounts and capital projects. The TLM allows employees to view their own leave balances, allows employees to request leave time electronically, provides online reporting, monitors uncertified absences, and provides centralized control to insure that all departments are addressing attendance issues in a consistent manner. The system is capable of generating numerous attendance related reports including employee absence history, employee accrual history, absence detail, absence incident, and FMLA analysis.

Exhibit III-1 provides the average number of days of absence per employee during the past six calendar years, 2006 through 2011. As indicated below, an increase in the number of days absent for both union and non-union employees has taken place from 2008 to 2010. Among the reasons offered by PGW for the increase was the improved attendance/absence tracking provided by the TLM, an increase in on duty injuries, employees purchasing short and long term disability insurance plans that entice employees to stay out longer since there is no impact to the employee's sick leave bank, FMLA, and low employee morale due to no salary increases for non-union personnel over the past five years.

Exhibit III-1
Philadelphia Gas Works
Average Number of Days Absent
Calendar Years 2006 to 2011

Year	Union	Non-Union	PGW Totals
2006	12.8	7.1	11.2
2007	12.4	7.4	11.0
2008	10.0	7.0	9.2
2009	12.0	7.5	10.7
2010	16.0	9.0	13.9
2011	13.6	8.6	12.1

Source: Data Request HR-4

In an effort to address absenteeism, PGW has taken initiatives that include allowing union employees to change schedules or shifts to accommodate work-life balance needs and introduced, on a pilot basis, a compressed work week program to allow management employees to address work-life balance issues. In addition, PGW implemented a number of Human Resources Policies to strengthen attendance requirements and reduce absenteeism. PGW feels the most effective are Policy #000-

7, Absence Pay Allowance for Union Employees, and Policy #000-10, Absence Pay Allowance for Non-Union Employees. Both were dated June 15, 2011 and delineate criteria for compensation when absent. PGW is also providing supervisor training regarding interacting with union employees through the management boot camp program and conflict resolution training. However, PGW has no defined goals with regard to reducing absenteeism.

Employee surveys were not conducted in areas where absenteeism is high as PGW indicated that absenteeism specifics due to illness/injury is confidential information that does not have to be divulged by law.

As evidenced by the increase in the number of days of absence per employee, PGW must continue to identify and implement new strategies to address the causes of employee absenteeism.

<u>Follow-up Recommendation No. III-2</u> – Monitor and assess absenteeism root causes and take corrective action to reduce absenteeism to at least 2006 levels.

<u>Prior Recommendation</u> – Develop a comprehensive return-to-work process, including metrics, for employees with medical restrictions.

<u>Prior Situation</u> – PGW had not made sufficient effort to fully utilize employees with medical restrictions. An Employee Utilization Committee (EUC or Committee) had existed for over ten years. The Committee had evolved from one that existed to review and grant medical disability retirements to one that was focused on return-to-work issues. Its mission was to ensure that disabled employees were treated with fairness, dignity, respect, and compassion while striving to maintain a high level of productivity through reassignments, reasonable accommodations, disability separations, and other appropriate personnel actions.

The availability of transitional duty or light duty work to accommodate employees with temporary medical restrictions appeared to be limited. The availability of light duty assignments was determined by each department and it was the responsibility of the departments to track the job assignments of employees with medical restrictions.

PGW did not have a formal policy on return-to-work and the Medical Department played a limited role in return-to-work. The role of the Medical Department was to forward restrictions to the appropriate department and then to subsequently return the employee to full duty based on documentation from the employee’s healthcare provider.

PGW reported that there were fewer opportunities for light duty assignments than in the past and was not accommodating all employees with non-occupational illness or injury related work restrictions with light duty assignments. In addition, PGW was not fully utilizing restricted duty employees. There were no light duty assignments in the Field Services Division. Helping customers complete Low Income Home Energy Assistance Program (LIHEAP) applications at district offices had historically been considered light duty work but for reasons not entirely clear, that work was now performed by temporary employees. For many companies, union work rules limited the ability to place an employee with medical restrictions outside his or her regular classification. This limitation was not the case at PGW.

Follow-up Finding and Conclusion No. III-3 – PGW has developed and instituted a process to return employees to work.

Since the Schumaker & Company audit, the EUC has assumed a prominent role in the return to work process. Members of the EUC include the Vice Presidents of Human Resources (HR) and Organizational Development (OD), the HR Attendance Manager, the HR Attendance Investigator, and the Company Doctor. The Committee meets monthly to evaluate the status of every employee who has been absent or on restricted duty for 30 or more days. The EUC meeting proceedings are documented by recorded minutes that include the Committee's assessment of each employee evaluated. The EUC determines if an employee is capable of performing their own job with restrictions, light duty tasks in other departments, job reassignment or medical separation. The EUC attempts to place a sick or injured worker in temporary jobs until they can return to their normal position or to find permanent placement if the employee's restrictions are permanent in nature. The Committee makes every effort to return an employee to work, within their own department if possible, in a limited capacity based on their current restrictions. The EUC's efforts are ongoing to identify work that can be performed by employees with medical restrictions.

PGW efforts to return employees to work include:

- Field Operations has identified specific tasks that need to be completed in the field and assigns this work to limited duty employees based upon their specific restrictions and job title.
- PGW has increased utilization of General Utility Drivers (10 positions) where limited duty employees perform field related services that would normally occupy a full capacity person's time.

PGW measures the success of the return-to-work program by the number of employees with medical restrictions at home and no light duty work available. Exhibit III-2 lists the 2011 monthly number of employees at home with no light duty work available. Out of a total workforce of approximately 1,700, the 2011 average monthly number of employees with no light duty work available was 10.6.

PGW's efforts to evaluate and accommodate employees with medical restrictions through the EUC has allowed for the return-to-work of experienced employees who can make a productive contribution to the Company.

Exhibit III-2
Philadelphia Gas Works
Number of Employees Home-No Light Duty Work Available
2011

MONTH	Number of Employees Home - No Light Duty Work Available
January	9
February	8
March	14
April	18
May	20
June	11
July	11
August	10
September	5
October	7
November	7
December	7
Average	10.6

Source: Data Request HR-14

Follow-up Recommendation No. III-3 – None.

Prior Recommendation – Appoint a return-to-work coordinator as part of the Absence Control group in Human Resources.

Prior Situation – PGW had not made sufficient effort to fully utilize employees with medical restrictions. The Medical Department reviewed all cases to assure that an employee was able to return to work and that medical restrictions were appropriate and not violated when an employee returned to work. As previously discussed, the EUC had existed for over ten years and evolved from one that reviewed and granted medical disability retirements to one that was focused on return to work issues.

Nonetheless, PGW was not accommodating all employees with non-occupational illness or injury related to work restrictions with light duty assignments. Schumaker & Company had been given conflicting accounts of the level of accommodations being made. In one interview they were told that there were no light duty assignments being made. The Vice President of OD assured Schumaker & Company otherwise. It was the responsibility of the departments to track job assignments of employees with medical restrictions. It appeared there was a general lack of clear accountability, no clear policy or practice to place employees with medical restrictions, and a loss of productive labor for the Company.

<u>Follow-up Finding and Conclusion No. III-4</u> – PGW's HR and OD personnel have assumed a more active role in performing return-to-work duties.

PGW's return-to-work function is coordinated between the HR and OD Departments with the EUC playing a primary role. While a return-to-work coordinator was not appointed, the HR Department in 2008 created the positions of Attendance Manager and Attendance Investigator whose duties, in addition to managing absenteeism, include assisting in returning employees with medical restrictions to work.

The EUC's expanded role in the return-to-work process (see Follow-up Finding and Conclusion No. III-3) coupled with PGW department management cooperation in determining job positions that allow flexibility in placing employees with medical restrictions has proved successful in minimizing the number of employees off with no work available.

<u>Follow-up Recommendation No. III-4</u> – None.

<u>Prior Recommendation</u> – Implement a comprehensive institutional knowledge loss risk assessment and workforce planning process.

<u>Prior Situation</u> – PGW faced potentially significant levels of retirement and associated loss of institutional knowledge in the coming years and had not developed a plan to address the risk to Company performance.

PGW predicted retirements based on historical levels. When Schumaker & Company inquired about retirement projections for the next three years, PGW management reported it expected 11 non-union employees and 30 union employees to retire each year. The projection was based on average retirement history for the past five years. The projection did not account for other factors that could accelerate retirement levels including:

- An aging workforce with high seniority.
- Normal retirement including an entitlement to receive a benefit commencing as of normal retirement date equal to the accrued benefit effects of approved domestic relations orders, and inclusion of accumulated sick leave in the year of credited service calculation.
- Early retirement, special early retirement, and thirty-and-out retirement.
- Incentives to retire sooner rather than later, such as defined benefit pension plans with generous health care benefits and pending contract negotiations causing a fear of reduction in these benefits.

While PGW had completed succession planning for the senior team and most of the management team, it had not conducted any workforce planning to predict retirements and institutional knowledge loss risk.

PGW had created a program for retirees to continue working for the Company in a limited capacity; however, it did not appear to be a component of an overall strategy nor was it implemented in any significant way.

Follow-up Finding and Conclusion No. III-5 – Although efforts have been made to address the loss of institutional knowledge, they have been somewhat concentrated.

PGW has identified potential attrition issues and has been developing strategies to mitigate the problem. A knowledge management program was initiated to capture tacit knowledge[1] from senior employees. Filmed interviews were conducted with senior managers to cull expertise and insight into specific job duties that cannot be found in job descriptions and manuals. The program was piloted in the Gas Planning Department's Gas Processing unit in 2010. Although deemed beneficial by PGW management, as of January 2012, the program had not been expanded to other departments.

Another workforce planning initiative involves the OD department distributing an annual staffing needs survey in September to all PGW Vice Presidents requesting them to project vacancies in their departments that will need to be filled during the fiscal year. The survey requests the department/unit, position title, union/non-union position indication, and the quarter the position is expected to be filled. A personnel review committee reviews the returned surveys to ascertain the position(s) need to be filled and forecast staffing levels.

PGW also uses a staffing initiative that assesses the talent, knowledge, and resources gap to ensure the right candidate is placed in the right job. An executive leadership program and succession planning are components of the initiative.

Furthermore, PGW has a succession plan in place for executive management, directors, and managers. The plan was last updated in December 2011. Each position is classified as having a potential candidate identified from the management team, having a potential candidate identified below management team level, or identifying that no candidate is readily apparent. Each position has between 1 and 3 candidates identified. Potential candidates are evaluated and approved by a committee comprised of the Chief Executive Officer, Chief Operating Officer, Vice President OD, Vice President HR, and the respective department Vice President. PGW's succession plan is comprehensive in covering middle and upper management; however, upon review, it was found that a total of 21 key management positions had no candidate identified. Among the positions without identified replacement candidates are:

[1] Tacit knowledge is defined as knowledge that has not been made explicit due to lack of an ability or product to codify it.

- Senior Vice President Marketing & Corporate Communications
- Vice President Customer Affairs
- Director Regulatory Compliance
- Director Supply Chain Operations
- Director Security
- Assistant General Counsel & Ethics Officer
- Director Risk Management

While PGW has conducted management succession planning, the number of key management positions with no succession candidate identified is cause for concern.

In order to ensure organizational viability, PGW needs to broaden its workforce development efforts to reduce institutional knowledge loss and have candidates in place to assume key management roles.

Follow-up Recommendation No. III-5 – Expand knowledge loss risk assessment and workforce planning at PGW.

IV. CORPORATE GOVERNANCE

<u>Background</u> – The Stratified Management and Operations Audit of Philadelphia Gas Works (PGW or Company), conducted by the consulting firm Schumaker & Company, released by the Pennsylvania Public Utility Commission (PUC or Commission) on February 5, 2009 at D-2009-2086453, contained five recommendations within the Corporate Governance Chapter. Schumaker & Company rated this functional area as needing moderate improvement. In this chapter, four prior recommendations and prior situations are reviewed and four follow-up findings and four recommendations are presented.

<u>Prior Recommendation</u> – Streamline the corporate governance processes of PGW.

<u>Prior Situation</u> – PGW is subject to the governance authority of multiple entities which included the Philadelphia Facilities Management Corporation (PFMC), the Philadelphia Gas Commission (PGC), the Mayor of the City of Philadelphia (Mayor), City Council (with the assistance of City departments such as the Controller and Solicitor) and the PUC. A Management Agreement between the City of Philadelphia and the PFMC, a non-profit corporation, was established in 1972. The PFMC was organized for the specific purpose of operating PGW and acts as PGW's Board of Directors. The Management Agreement broadly establishes management responsibilities of the PFMC which included the hiring of key management personnel; the production, purchase and delivery of gas; gas pressure; financial management; and other items. The PGC further oversees the operation of PGW, specifically approving PGW's annual operating budget and reviewing and making recommendations to City Council concerning PGW's capital budget (as of July 2000, responsibility for rates and handling customer complaints was transferred to the PUC). The PGC also approves the Chief Executive, Chief Operating, and Chief Financial Officers selected by PFMC in addition to all gas purchase contracts. PFMC's Board of Directors, whom receive no compensation for their service, had vast experience in legal, government service, external relations, and finance; however, no members had the desired level of experience with private sector finance, auditing or senior level utility management experience. Additionally, Schumaker & Company felt that lack of Board compensation could hinder recruitment of future directors.

PGW in effect had two defacto boards, due to broad oversight responsibilities which overlapped and it was unclear what resided with both PFMC and PGC. Furthermore, while the PGC had no committee structure, the PFMC operated with only two committees: Finance and Audit. PFMC's Audit Committee had no charter to define its roles and responsibilities and was comprised of only two members. Schumaker & Company indicated based on its experience in the private utility sector, especially with the advent of the Sarbanes-Oxley Act, that the roles and responsibilities of Board of Directors had become much more clearly defined with very structured committees, greater emphasis on Board composition, staggered Board member terms, and Board compensation. Schumaker & Company concluded given the circumstances that PGW should not be governed by two Boards of Directors.

<u>Follow-up Finding and Conclusion No. IV-1</u> – No efforts to streamline the corporate governance processes of PGW have taken place.

PGW continues to be jointly governed by the PFMC, PGC, and City Council. In its Implementation Plan, PGW rejected the Schumaker & Company audit recommendation indicating this issue is beyond the capacity of PGW management to address. The Schumaker & Company audit report recommended combining the PFMC and PGC into one Board of at least nine members. However, such an action would require a change in City of Philadelphia ordinances which must be passed by City Council. Although the PFMC, PGC and City Council are aware of the Schumaker & Company audit recommendation, there has been no discussion or movement regarding its implementation.

To achieve a more manageable Corporate Governance structure for PGW that is a comparable equivalent to that of a typical privately owned gas utility, it would be appropriate to develop:

- A single controlling Board of Directors by combing the PFMC and PGC into a Board with comprehensive clearly defined roles and responsibilities.
- A Board with diverse composition of relevant technical and business experience.
- A Board with the majority of members that are independent from City government and PGW management.
- A Board member compensation policy.
- Staggered terms for Board members.
- A Board committee structure that includes, at a minimum, Audit, Finance, Governance/Nominating; and Compensation committees.

<u>Follow-up Recommendation No. IV-1</u> – Initiate efforts to encourage the PFMC, PGC and City Council to make changes to streamline PGW's corporate governance.

<u>Prior Recommendation</u> – Develop an ongoing ethics training program.

<u>Prior Situation</u> – PGW had a formal code of ethics that closely followed the tenets of the State Ethics Act. The most recent version was approved by the PFMC Board in December 2006 and is reflected in PGW's Ethics and Conflict of Interest Compliance Policy and Program. The code of ethics applied only to exempt (non-bargaining unit) employees and did not include bargaining unit employees. A designated Ethics Officer in PGW's Legal Department developed a series of ethics training presentations. Among the presentations were:

- Corporate Ethics – presented to approximately 550 exempt (non-bargaining unit) employees.
- Operations Ethics Program – presented to approximately 50 Operations supervisors.

- Workplace Ethics-Information Services – presented to 15 Information Services supervisors.

PGW's exempt employees were required to attend ethics bi-annual training; however, there was no requirement for all PGW employees to attend ethics training. Exempt employees attending ethics training were issued a copy of the Ethics Policy and were required to sign an acknowledgement they had received this training.

Follow-up Finding and Conclusion No. IV-2 – Mandatory ethics training is provided to all exempt employees on a bi-annual basis; however, bargaining unit employees are not required to attend ethics training.

Mandatory ethics training was provided to PGW executive management, managers, and supervisors during September/October 2010 and January/February 2011. Sign-in sheets verifying attendance are maintained for all training sessions. PGW's Ethics Officer indicated that the Ethics Policy is not applicable to bargaining unit employees and, therefore, they are not required to attend ethics training. Furthermore, it was noted that for the Ethics Policy to become applicable to bargaining unit employees, the issue would have to be collectively bargained with the union and included in the collective bargaining agreement. The current four year collective bargaining agreement that expires May 15, 2015 replaces an agreement that expired May 15, 2011. There is no provision in the current bargaining agreement for the Ethics Policy to apply to union members.

Although PGW has a formal code of ethics and provides periodic ethics training, the policy covers only exempt or non-bargaining unit employees. It is essential that all employees, the majority of which are non-exempt or union employees, are aware of PGW's expectations for honesty, integrity, and loyalty and that the code of ethics explicitly provides an effective means of reporting ethical violations, including reporting violations anonymously if desired.

Follow-up Recommendation No. IV-2 – Develop an Ethics Policy to be applicable to bargaining unit employees and, as necessary, work with the union to facilitate its use. Provide mandatory ethics training to all PGW employees on a periodic basis that enables them to identify unethical behavior and instructs them how to report violations.

Prior Recommendation – Strengthen the Board Audit Committee function.

Prior Situation – PFMC's Audit Committee consisted of only two members and held only one meeting each in 2006 and 2007. There were no meetings in 2005. The only available minutes of these meetings were from the August 2007 meeting. Furthermore, there was no Audit Committee charter defining its roles and responsibilities making it unclear of the Audit Committee's authority to nominate, hire, and fire the external auditor. In addition, there was no record of discussions between the Audit Committee and external auditors on the quality of PGW's financial statements or internal controls nor of quarterly meetings with the internal auditors (also see Chapter V-Financial Management, Follow-up Finding and Conclusion No. V-3).

PGW's external auditor (KPMG, LLP) was selected through a competitive request for proposal (RFP) process. KPMG performed PGW's audits for the five year period spanning 2003 through 2007. In accordance with its renewal rights under the contract, KPMG's contract was extended to include the 2008 audit year. KPMG performed only audit services and bond offering assistance. No non-audit related services (e.g., consulting services) were performed by KPMG.

Follow-up Finding and Conclusion No. IV-3 – Although some progress has been made, additional measures need to be taken to further strengthen the PFMC Audit Committee function.

A third member, who also serves as First Deputy Director of Finance for the City of Philadelphia, was appointed to PFMC's Audit Committee in January 2008. Although the First Deputy Director of Finance was appointed to the Audit Committee in January 2008, per Audit Committee meeting minutes, the newest member did not attend a Committee meeting until November 18, 2011. Two Audit Committee meetings were held in 2008, 2009 and 2010 and three meetings were held in 2011. There is a formal recording (i.e., minutes) of all Audit Committee meeting proceedings.

A detailed Audit Committee Charter has been developed which defines the Committee's roles and responsibilities as including:

- Oversee and review the integrity of PGW's financial statements.
- Assess the independent auditor's qualifications and independence.
- Recommend the selection of the independent financial auditor to the Board of Directors.
- Review the external auditor's annual audit of the financial statements with management and the external auditor.
- Assess the performance of PGW's internal audit function and independent auditors.
- Meet at least four times per year or more frequently as circumstances require.

Although Audit Committee meeting minutes note that considerable discussion took place regarding PGW's internal audit plan and audit status, there was no indication of discussions regarding PGW's financial statements and internal controls taking place between the Audit Committee and the external auditor.

PGW issued an RFP for external auditing services for fiscal year 2009 (i.e., September 1, 2008 to August 31, 2009) on March 30, 2009. KPMG was selected to provide the services. The contract provides for PGW, at its option, to amend the terms of the agreement to add up to three successive terms of up to one year each. KPMG has continued to provide external auditing services subject to the above provision. The City of Philadelphia Controller, Finance Director and the PFMC all must give final approval for the selection of the external auditor before the contract is finalized (see

Follow-up Finding and Conclusion No. IV-1 regarding overlapping corporate governance concerns).

The Audit Staff notes that improvements have been made regarding the Audit Committee function including: development of an Audit Committee Charter, the appointment of a third Audit Committee member, and maintaining minutes for all Audit Committee meetings. However, the Audit Committee still has not met at least four times in a year and the minutes of its meetings showed no evidence of discussions taking place with the external auditors regarding the financial statements and internal controls nor quarterly meetings with the internal auditors. In addition, it was only recently, at the November 18, 2011 Audit Committee meeting, that all three Audit Committee members attended together.

Follow-up Recommendation No. IV-3 – Adhere to all duties and responsibilities enumerated in the Audit Committee Charter.

Prior Recommendation – Expedite the pursuit of the Business Transformation (BT) project.

Prior Situation – At the time of the Schumaker & Company management audit, only a portion of the BT project had been approved by the PFMC and PGC. Many of the issues slated to be addressed by the BT effort were similar to items identified in the management audit as needing improvement including:

- Customer affairs
  - ✓ Write-off reactivation
  - ✓ Landlord cooperation
  - ✓ Soft off Program monitoring

- Field operations
  - ✓ Resource management
  - ✓ Field management

Schumaker & Company also had findings in other areas of the organization where specific BT items had been identified but not yet been approved. These areas included:

- Purchasing and materials management
- Fleet management

Follow-up Finding and Conclusion No. IV-4 – Considerable progress has been made in carrying out BT project initiatives.

With periodic approvals from the PFMC, PGC and Philadelphia City Council, PGW has been able to successfully implement a number of BT project initiatives and is realizing significant cost savings as a result. Of particular note is the Customer Affairs business segment where write-off reactivation, lien re-write, landlord cooperation program, soft off program[2], and risk based collections initiatives have been implemented. In addition, the Field Operation's resource management initiative is fully implemented and the field management initiative is scheduled to be completed in 2012. However, the Real Estate Rationalization initiative as it involves the consolidation of district offices and the closing and sale of PGW's old office building at 9th and Montgomery Streets in Philadelphia has been deferred pending a decision by the City of Philadelphia to sell PGW. The Mayor of the City of Philadelphia, following an 18 month feasibility report commissioned by its financial adviser in June 2010, indicated that the city will likely explore potential suitors with an inclination toward selling PGW to a private owner if it results in a net profit for the city. A real estate optimization study has been completed and a recommendation made to and approved by both the PFMC and PGC to go forward with the Real Estate Rationalization initiative. However, final approval from City Administration (i.e., Mayor's Office) is still needed. A summary of the BT initiatives and their status as of December 2011 is provided in Exhibit IV-1.

Exhibit IV-1
Philadelphia Gas Works
Business Transformation Initiative Summary
As of December 2011

Business Area	Initiative	Status
Field Operations	Asset and Resource Management	Resource Management fully implemented. Asset management on hold.
	Field Management	Several items are scheduled for implementation in FY 2012, all others have been fully implemented.
Supply Chain	Strategic Sourcing	Complete as part of S4 consultants transformation initiative.
	Fleet Optimization	Fleet has been right sized.
	Warehousing & Logistics	On hold with Real Estate Rationalization.
Customer Affairs	Collection Transformation	Fully Implemented.
	Operations Transformation	Fully Implemented.
Enterprise Wide	Strategic Focused Organization (SFO) metrics & performance management	Fully Implemented.
	BT Phase I for other areas	Delayed.
	Office of Business Transformation	Fully Implemented.
	Real Estate Rationalization	Study complete and recommendation approved by PFMC and PGC, waiting for City Administration approval. (District Office consolidation on hold.)
	Time and Attendance Optimization	Fully Implemented.
	Parts and Labor Optimization	Complete.

Source: Data Request CG-7

[2] See Chapter X-Customer Service – Follow-up Finding and Conclusion X-7.

PGW is realizing significant benefits from the implementation of various BT initiatives. During fiscal years ended August 31, 2010 and 2011, the BT initiative resulted in approximately $20.9 million and $27.5 million in realized cost savings, respectively, see Exhibit IV-2. The continued implementation of BT project initiatives is expected to yield significant additional benefits. Benefits are being achieved primarily through improved collection rates, reduced annual write-off amounts, reduced operating expenses, reduced utility gas expense, and more efficient utilization of field resources. By moving forward with the BT project, PGW will be able to realize additional financial benefits and operational efficiencies. Projected financial benefits for the fiscal year ending August 31, 2012 are approximately $21,000,000. Further discussion regarding PGW's realized BT savings are discussed in Chapter VI – System Reliability Performance (Follow-up Finding and Conclusion VI-4), Chapter IX – Procurement Services and Materials Management (Follow-up Finding and Conclusion IX-3), and Chapter X – Customer Service (Follow-up Finding and Conclusion X-7).

Exhibit IV-2
Philadelphia Gas Works
Realized Savings Resulting from Business Transformation Initiatives
For Fiscal Years Ending August 31, 2010 and 2011

Business Area	2010	2011
Customer Affairs		
Write-Off Reactivation	$2,597,000	$2,251,000
Risk Based Collections	$550,000	$523,000
Landlord Cooperation Program	$7,028,000	$5,819,000
Lien Re-Write	$8,575,000	$14,381,000
Soft Off Program	$1,760,000	$1,811,000
Total Customer Affairs	$20,510,000	$24,785,000
Field Operations	$379,000	$1,789,000
Supply Chain	-	$948,000
Total Realized Savings	$20,889,000	$27,522,000

Source: Company provided data

<u>Follow-up Recommendation No. IV-4</u> – Continue timely implementation of the remaining Business Transformation project initiatives.

V. FINANCIAL MANAGEMENT

<u>Background</u> – The Stratified Management and Operations Audit of Philadelphia Gas Works (PGW or Company) conducted by the consulting firm Schumaker & Company, released by the Pennsylvania Public Utility Commission (PUC or Commission) on February 5, 2009, at D-2009-2086453, contained five recommendations regarding the Financial Management functional area. Schumaker & Company rated this functional area as needing moderate improvement. In this chapter, four prior recommendations and prior situations are reviewed and three follow up findings and one recommendation is presented. However, only a total of three prior recommendations and prior situations are presented as two prior recommendations and situations have been combined for report purposes into one follow-up finding (V-3) due to their similarity.

<u>Prior Recommendation</u> – Update the payroll system cost analysis.

<u>Prior Situation</u> – In 2002, PGW completed a cost/benefit analysis as part of its procurement process to acquire a new Payroll/Human Resources Management System (HRMS). Subsequently, in April 2003, PGW outsourced its payroll function to ADP. The implementation of the ADP Payroll/HRMS provided automation to PGW's previously manual HR function and added functionality such as a pension calculation. The analysis that supported this change indicated that most of the cost savings would be realized as a result of PGW's ability to eliminate its mainframe computer. The mainframe computer that had been running PGW's payroll system for approximately 30 years had limited functionality and performance issues.

However, the mainframe computer supporting the Payroll/HRMS had remained in operation through 2008 to support the remaining timekeeping, labor reporting, scheduling, and corporate attendance systems on the mainframe and therefore the projected cost savings had not been realized as planned. Schumaker & Company acknowledged that as of 2008 PGW was already taking steps to retire the remaining mainframe applications and discontinue operation of the mainframe, and that therefore it was likely too late to change course. Nonetheless, the consultant felt that an updated payroll system cost analysis should be performed to reevaluate the 2002 decision making process.

<u>Follow-up Finding and Conclusion No. V-1</u> – PGW did not update its initial payroll system cost analysis; however, it has retired its mainframe computer from service and is now realizing the anticipated cost savings.

In July 2009, PGW's mainframe computer was removed from service. The largest cost savings from eliminating the mainframe computer came in the form of eliminating incumbent hosting services. This cost savings is partially offset by the hosting costs for the new Time and Labor Management (TLM) system resulting in an approximate $345,000 net annual savings. (See Follow-up Finding and Conclusion No. III-2 in the Executive Management and Human Resources Chapter for further discussion of the TLM system.) Although the Company deployed its ADP Payroll/HRMS beyond the timeline of the original cost benefit analysis, the increasing costs for maintaining the mainframe and its lack of functionality clearly indicated a new system was needed. Consequently, PGW did not take on the cost and effort to update the initial payroll system cost analysis because the Company was nearly finished with the payroll system upgrade in 2008 and completed the project in July 2009.

<u>Staff's Follow-up Recommendation</u> – None.

<u>Prior Recommendation</u> – Improve the timing of the budget preparation and approval process.

<u>Prior Situation</u> – From 2003 through 2007, only the FY 2007 capital budget was approved prior to the start of the budget year. For two years during this time period, the capital budget was not approved until nine months into the budget year. Additionally, the operating budget approvals were routinely occurring after the fiscal years began as operating budget final approvals were occurring from one month to over five months after the start of the budget year.

PGW's operating budget process began in February of each year via a budget instruction kick-off letter disseminated to the respective departments. The draft operating budget was initially presented to the Finance Committee of the Philadelphia Facilities Management Corporation (PFMC) Board of Directors (PFMC Board) in May for their review and approval. Concurrently, the draft budget was forwarded to the City of Philadelphia's Director of Finance for review to insure the budget was, in form and content, satisfactory. The draft operating budget was then forwarded to the Philadelphia Gas Commission (PGC) for approval at the end of May. The PGC's review process began in June and usually concluded in August or September with a recommended decision that was ultimately approved at a PGC meeting in September or October. The approval process conducted by the PGC included informal sessions both prior to and after the budget submission, the development of data inquiries and responses, submission of testimony from the Public Advocate, public hearing(s), briefs, a recommended decision by the hearing examiner, and ultimately approval by the PGC itself.

The timetable for the development of the capital budget began earlier, in September of the prior year, because it had to be reviewed for recommendations by the PGC and the City's Finance Director prior to the City Council's review and approval. This capital process was initiated in September via a capital budget kick-off letter. The proposed budget was presented to the Finance Committee of the PFMC Board for their review prior to approval by the full PFMC Board. After receiving approval of the PFMC Board, the budget was forwarded to the City's Finance Director to review the budget for form and content and then to the PGC for their recommendation to City Council. The approval process conducted by the PGC included informal discovery sessions, the development of data inquiries and responses, submission of testimony from the Public Advocate, public hearing(s), briefs, a recommended decision by the hearing examiner, and ultimate approval by the PGC of a recommendation for approval to City Council.

Final approval was received by City Council by budget ordinance. The proposed budget was forwarded to City Council's Finance Committee prior to City Council approval.

<u>Follow-up Finding and Conclusion No. V-2</u> –The timing of PGW's budget preparation and approval process has improved.

Since 2008, PGW has made efforts to improve the timing of the budget process through several changes in the approval process. As a result, the interactions between PGW and the PGC have become more collaborative and timely. Prior to filing its official Operating Budget, PGW has begun to conduct a meeting with the PGC staff and Public Advocate to provide a preview of the budget. Consequently, PGW has a better understanding of the information desired by the PGC in the initial budget proposal and has increased the amount of data it provides. Additionally, informal discovery sessions are held with all the parties of the budget proceedings to expedite any questions and provide answers prior to the formal hearings for the annual Operating Budget. Prior to the submission of the Capital Budget, PGW conducts a Capital Budget Workshop to identify issues that can be resolved prior to the submission of the budget. This process has reduced the number of issues that need to be resolved during the budget hearings and expedites the approval of the budget.

PGW's fiscal year 2012 capital budget was approved by City Council and the budget ordinance was signed by the Mayor in mid-June 2011 (over two months before the start of the 2012 fiscal year). PGW's fiscal year 2012 operating budget was ultimately approved in October 2011 which was more than one month into the 2012 fiscal year, but at least two months sooner than in prior years. It should be noted that the PGC had approved an Interim Operating Spending Authority for the first two months of PGW's fiscal year 2012.

In summary, it appears that changes in the nature and timing of the budget process interactions among PGW, the PGC and the Public Advocate has resulted in an overall more collaborative process resulting in improved timing of the capital and operating budgets approvals that should continue into the future.

<u>Staff's Follow-up Recommendation</u> – None.

<u>Prior Recommendations</u> – Modify the Internal Audit (IA) program structure by addressing all noted deficiencies and implement a process to ensure that the IA Director meets quarterly with the Board's Audit Committee.

<u>Prior Situation</u> – Schumaker & Company found that PGW did not have an effective IA program with appropriate management policies, plans, procedures, practices and systems. PGW's Internal Audit function consisted of a Director of Internal Audits and a Systems Auditor with the majority of the internal audits being completed by a different external accounting firm then performs its annual financial audit. PGW's Internal Audit function was not being performed effectively primarily as a result of the following key deficiencies:

- Lack of regularly developed annual audit plan and calendar – Only two formal audit plans (i.e., March 2006 and April 2008) had been approved during the past several years. The IA function did not follow the standard practice of developing a formal audit plan before the beginning of each fiscal (or calendar) year.
- Lack of IA risk assessment tools and techniques – The IA function did not perform formal risk assessments using a risk-assessment tool as part of an annual audit planning process.
- Lack of standard work plan formats – Despite the IA function being in existence for several years, the IA Director was still performing quality assurance on the formatting in use for individual IA work plans.
- Few audits performed during the early 2000s – The IA function was suspended for over a year before being restarted in 2003. From 2003 to 2007, only 21 audits were completed because the contract with the outside firm was inactive for frequent periods of time. During the inactive periods no audits were conducted except those performed by PGW's limited IA staff.
- Infrequent presentations to the PFMC Audit Committee – The PFMC Audit Committee was supposed to meet with the IA Director quarterly but had not kept to its schedule. As a result, the IA Director only met with the Audit Committee three times over the three year period September 2005 into 2008.

Follow-up Finding and Conclusion No. V-3 – PGW has not made significant improvements to its Internal Audit function nor has a process been established to ensure that the IA Director meets with the PFMC Audit Committee on a quarterly basis.

In 2009, PGW hired Grant Thornton, LLP (Grant Thornton) (i.e., a different firm from that which conducts the annual financial audit, see Follow-up Finding and Conclusion No. IV-3 for further discussion of the external auditing firm) on a three year contract basis (ending in August 2012) to perform internal audits. Grant Thornton performed a risk assessment that was the basis for a three year audit plan. Annually, a one year audit plan (that is created based on the three year audit plan's objectives) is reviewed and approved by the PFMC Audit Committee. Since 2009, Grant Thornton has conducted several internal audits at PGW.

PGW's Director of Internal Audits & Strategy Planning is responsible for developing and maintaining the Company's risk-based audit plan. In October 2011, PGW hired a Director of Internal Audits to supervise the execution of a company-wide risk-based audit plan and to assist PGW in achieving its strategic objectives by overseeing internal audits conducted by PGW or its external audit firm. As of mid-January 2012, PGW had posted a job opening in the Internal Audit function to add an Internal Auditor. Prior to the expiration of the Internal Auditing Firm's contract in August 2012, PGW will be evaluating whether to further expand its staff or to continue outsourcing the bulk of its internal auditing function.

Consequently, PGW has either initiated actions or made improvements to at least partially address some of the previously noted Internal Audit function deficiencies by:

- As of early 2012, the Director of Internal Audits & Strategy Planning was in the process of implementing enterprise risk management software that would improve the Internal Audit function's ability to identify current areas of risk to explore. PGW plans to have the software fully implemented during 2012.
- PGW has held discussions with the Internal Auditing Firm regarding implementation of standardized work plans and audit report formats. However, standardization has not yet occurred.
- The Audit Committee met only twice in 2009, once in 2010 and three times in 2011. However, management from the Internal Audit function attended every meeting. Per the Audit Committee's charter, the Audit Committee should meet at least four times per year. (See Follow-up Finding and Conclusion No. IV-3 in the Corporate Governance Chapter for further discussion of the Audit Committee function.)

While the changes PGW has made are indicative of a potential strengthening of the Internal Audit function, PGW must also address the following issues in order to have an effectively run Internal Audit function:

- A formal audit plan should be developed prior to the beginning of each fiscal year.
- The IA function should perform formal risk assessments using a risk-assessment tool as part of an annual audit planning process.
- PGW should standardize the formatting of the work plans and internal audit reports developed internally and externally.
- While more frequent Audit Committee meetings have been held albeit on an inconsistent basis, failure of the Audit Committee to hold quarterly meetings, which are attended by Internal Audit management, not only results in non-compliance with the Audit Charter, but precludes the Audit Committee from being actively engaged with the Internal Audit function on a routine basis.

Staff's Follow-up Recommendation – Modify the IA program structure by developing annual audit plans based on annual risk assessments, standardizing work plans and internal audit reports, and ensuring that the Audit Committee meets with the IA Director at least four times a year.

VI. SYSTEM RELIABILITY PERFORMANCE

<u>Background</u> - The Stratified Management and Operations Audit of Philadelphia Gas Works (PGW or Company), conducted by the consulting firm Schumaker and Company, released by the Pennsylvania Public Utility Commission (PUC or Commission) on February 5, 2009, at D-2009-2086453, contained 12 recommendations within the System Reliability Performance and Other Related Operations Chapter. Schumaker & Company rated this functional area as needing moderate improvement. In this section, eight prior recommendations and prior situations are reviewed and eight follow-up findings and two recommendations are presented.

<u>Prior Recommendation</u> – Provide at least two controllers on all shifts for the Gas Control Center.

<u>Prior Situation</u> – PGW had 10 gas controllers, five senior gas controllers and five entry level gas controllers. Two or three gas controllers at a time were assigned duty during the winter, depending on the size of the forecasted load; and therefore, vacations were not permitted during the winter period. However, only one controller was on duty during the non-winter period spanning April through November. Vacations were taken during these months and many of the more senior staff members were entitled to four weeks of vacation making it difficult to maintain two controllers during the summer months without training additional controllers. Nonetheless, having two controllers in the control center is considered a best management practice and helps to ensure the safe and reliable operation of the distribution system.

<u>Follow-up Finding and Conclusion No. VI-1</u> – PGW staffs its gas control center with at least two gas controllers at all times.

The Company now alters its schedule in order to accommodate vacation, sick or other lost time in the gas control center. For instance, the Company utilizes two 12-hour shifts instead of the standard three 8-hour shifts during periods of low staffing. In addition, the Company has taken steps to plan for upcoming retirements by increasing its gas controller staffing levels, see Follow-up Finding and Conclusion No. VI-2. Commencing in 2010, PGW has required its gas control center to be staffed by at least two controllers year round.

<u>Staff's Follow-up Recommendation</u> – None.

<u>Prior Recommendation</u> – Take steps to plan for the retirements that could have a major impact on the ability to staff the Gas Control Center.

<u>Prior Situation</u> – During the period of the Schumaker & Company audit, at least three of the five senior gas control center employees could have elected to retire with a notice period of between two weeks to two months. Moreover at least three additional employees from the total compliment of ten would have become eligible for retirement within the next three years. Without contingency plans for hiring and training new employees, the Company could be left understaffed at the Gas Control Center.

Follow-up Finding and Conclusion No. VI-2 – PGW is hiring additional staff in order to plan for the potential retirement of senior gas controllers.

Four gas controllers will be, or are, eligible for retirement within the next three years, 2012 - 2015. In addition, PGW estimates that it takes between two to three years to fully train a gas controller. As a result of pending retirements and longer training periods, the Company has increased its gas controller staffing levels from 10 to 11 in 2011. In addition, the Company plans to hire three more employees (one to fulfill a pending retirement) to establish a new compliment of 13 gas controllers. The Company has encountered some problems in attracting and retaining qualified candidates due to the unique nature of the position (i.e., extremely stressful and constrictive in the winter and monotonous in the summer). However, the Company has expanded its search for candidates and is making an effort to hire and subsequently train new employees before senior gas controllers retire.

Staff's Follow-up Recommendation – None.

Prior Recommendation – Institute a program to perform vendor credit checks in order to qualify for a NAESB (Natural Gas Approved Standardized Buy/Sell) purchasing agreement, and to perform credit evaluations on a regular basis for existing suppliers.

Prior Situation – PGW was not evaluating the financial strength of gas suppliers prior to entering into a NAESB purchasing agreement. The NAESB is an industry wide agreement under which an entity can either be a buyer or seller in a natural gas transaction. However, gas suppliers who make an application for a NAESB agreement are not required to present financial information demonstrating financial strength to ensure reliable delivery of gas supplies to their clients. Therefore, historically PGW transitioned new gas suppliers along slowly to build their credibility as a reliable vendor by first allowing only daily purchases, expanding to weekly purchases, then to monthly purchases, and finally to multi-month purchases.

Schumaker & Company determined that no gas supplier had defaulted with PGW in the past five years, but it was a prudent and common business practice in the gas industry to periodically evaluate the financial strength of gas suppliers. The potential risk was that if a financially strapped gas supplier failed to deliver contracted gas supplies during peak cold months, PGW could potentially have to purchase replacement gas at much higher spot market prices.

Follow-up Finding and Conclusion No. VI-3 – PGW has not finalized its program to perform vendor checks for new and existing gas suppliers.

PGW's Gas Supply Department is currently working with the Credit and Collections Department to implement an annual credit check process for all gas suppliers. However, further coordination efforts between the Gas Supply and Credit and Collections Departments have to be addressed before the process is finalized. As a result, as of December 2011, PGW still did not have a method, other than its history with a supplier, to gauge the supplier's financial capability to provide reliable gas supply. Although, PGW should be able to acquire an adequate supply if a supplier defaulted, it could end up paying a premium in spot market prices instead of the price it had negotiated.

Staff's Follow-up Recommendation – Finalize the program for performing periodic credit checks on new and existing gas suppliers.

Prior Recommendation – Enhance the Field Service Department (FSD) and Distribution Department's business processes through more computerization.

Prior Situation – Schumaker & Company found that PGW's business systems were not as complete or automated as others in the industry. PGW's primary system used to manage its field forces was the Automated Information Management System (AIMS). The FSD used AIMS to aid in dispatching technicians. The AIMS platform was installed on laptops in the technicians' trucks. However, the Distribution Department did not have the same capabilities as FSD and was therefore relying upon internal paper based systems. Furthermore, neither Department had geographical information services (GIS) capabilities for dispatching or routing. In addition, various other functions within field operations were performed manually that could be computerized.

Follow-up Finding and Conclusion No. VI-4 – PGW has expanded its use of AIMS to the Distribution Department and has computerized various functions within FSD and the Distribution Department.

Automation of field services support processes provides the ability to increase worker productivity, increase the capture and analysis of data, and increase the overall ease of use of the system. As part of PGW's continuing effort to more fully automate its field operations, the second phase of AIMS (referred to as AIMS2) was implemented in the first quarter of 2009. AIMS2 expanded upon the original AIMS platform by automating various functions/paperwork of the Distribution Department such as distribution leak management, new construction, pressure force (i.e., inspection and maintenance of regulator stations and control valves), business district surveys, etc. In addition, AIMS2 added remote automation for the FSD collection and revenue protection activities.

The Company deployed a Field Management Initiative in its fiscal year 2010 that enhanced AIMS2 by providing more reliable new business cost estimates, asset data management capabilities, automating new customer connection orders, etc. In addition, PGW implemented an automatic vehicle location system in 2010 that utilizes the Company's geographical positioning system (or GPS) to identify the approximate location of field technicians useful in timely dispatching of crews. In fiscal year 2012, the Company is deploying the Field Management Major Improvement Initiative that will help identify cost savings related to bundling departmental workloads into geographical areas among other improvements.

PGW's continued deployment of its AIMS systems has enabled the Company to increase the efficiency of its workforce. PGW plans to continually refine and improve AIMS, furthermore the Company plans to start an auditing initiative in 2012 designed to identify data errors or anomalies from inputting data from the field. The Company estimated that during fiscal year 2011, it has realized approximately $1.78 million in annual savings resulting from its improved efficiencies. These savings are projected to continue and increase in the coming years. See Follow-up Finding and Conclusion No. IV-4 for additional information regarding PGW's realized savings from the Business Transformation initiative.

Staff's Follow-up Recommendation – None.

Prior Recommendation – Centralize all field force planning, scheduling, performance monitoring and analysis functions.

Prior Situation – PGW's planning and scheduling of distribution, field services and collection field services functions were fragmented. Individual work groups were responsible for forecasting, planning, scheduling, and monitoring their unique workloads which limited the Company's ability to optimize overall field forces. Although PGW utilized AIMS to dispatch work orders, the workforce planning function lacked automation and was not completely developed. In some cases, workforce planning was a manual process whereas other units/departments had some level of basic computerization (i.e., primarily Excel spreadsheets).

Follow-up Finding and Conclusion No. VI-5 – PGW has centralized the planning, scheduling, performance monitoring and analysis functions of its field forces.

PGW created the Resource Management (RM) Group in the fourth quarter of 2009. The RM Group reports directly to the Vice President of Operations and is tasked with forecasting and scheduling workloads for the FSD and some of the Distribution Department. Due to the unique and long term nature of the Distribution Department's workload, the RM Group was still refining the Distribution Department's scheduling model as of January 2012. In addition, various small units perform scheduling outside of the RM Group because of their specialized work and low spans of control (i.e., pressure force, corrosion, revenue protection, etc.).

In addition to scheduling and forecasting, the RM Group also monitors performance. Some of the performance metrics utilized include average completion time by job code, adherence to job completion targets, budgeted to actual workload, etc. In addition, the RM Group also evaluates overtime, special projects, and overall staffing levels and then makes recommendations with the concurrence of the FSD and Distribution Department. The aim is to optimize staffing through a balanced approach to staffing levels, overtime, and workloads.

Within a large organization, there are opportunities to bundle similar work (i.e., either locational or similar tasks) and gain efficiencies through effective planning and foresight. Most of the savings identified in Follow-up Finding and Conclusion No. VI-4 resulted from these types of efficiencies. The RM Group also provides the Company with a dedicated expertise in staffing, planning, and analysis. Furthermore, as the RM Group refines its workload models and AIMS2 deployment is completed, the Company will continue to realize additional efficiencies (projected to be at least $1.2 million annually) in addition to the savings already identified in Follow-up Finding and Conclusion No. VI-4.

Staff's Follow-up Recommendation – None.

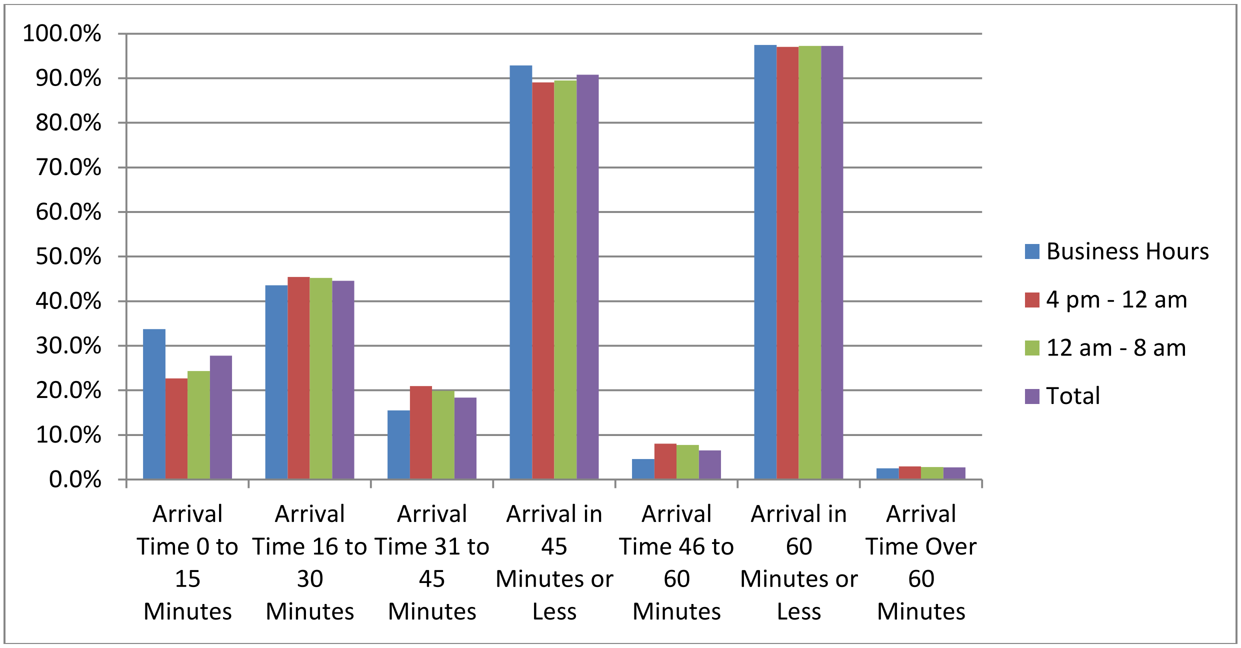
Prior Recommendation – Set more aggressive performance targets on gas leak response.

Prior Situation – PGW's leak response target was set at 95% within 60 minutes, and the Company had exceeded that target in each of the past five years, 2003-2007. However, Schumaker & Company had seen other gas utilities establish and achieve higher leak response performance levels.

Follow-up Finding and Conclusion No. VI-6 – PGW has increased its leak response target to 97% within 60 minutes.

In 2009, PGW performed a benchmarking study, which was conducted through the Energy Association of Pennsylvania. The benchmarking study indicated that PGW experiences twice the number of odor investigations than any other natural gas utility within Pennsylvania. Nonetheless, based upon an analysis of its own data, PGW increased its odor response metric from 95% to 96% within 60 minutes for the 2009 fiscal year. The response metric was further increased to 97% in 2011. PGW's response rates by response period for fiscal year 2011 are presented within Exhibit VI-1.

Exhibit VI-1
Philadelphia Gas Works
Response Rates by Time of Day
Fiscal Year Ended September 30, 2011



Source: Data Request SR-10

Responding to emergencies and odor calls is a critical function of a gas utility. Given the criticality and public safety issues, gas utilities should continuously strive to respond as soon as possible to reports of potential gas leaks. In addition, a primary intent of setting a metric or goal is for the organization to be challenged and then rewarded for meeting the goal. Although, PGW's response goal and performance is not the best within Pennsylvania, the Company operates within a unique area resulting in unusually high volumes of odor calls. However, PGW should continue to strive for improvement in its response rates and goals.

Staff's Follow-up Recommendation – None.

Prior Recommendation – Build a stronger gas theft of service program.

Prior Situation – In 2005, PGW started to include an estimate of theft of gas within its Unaccounted-for-gas (UFG) calculation. Theft of gas had become one of the largest unaccounted-for-gas usage adjustments for PGW as presented in Exhibit VI-2.

Exhibit VI-2
Philadelphia Gas Works
Accounted-for-Gas Adjustments
As of December 2006

Adjustments	2005 MCFs	2005 Percent	2006 MCFs	2006 Percent
- Maintenance and Construction	3,639	0.5%	4,058	0.6%
- Gate station bleeds	7,762	1.1%	7,743	1.1%
- Meter accuracy	-101,242	-14.1%	-62,102	-9.0%
- Pressure Adjustments	734,426	102.2%	641,966	93.0%
- Third-party damage	0	0.0%	0	0.0%
- Utility usage	12,335	1.7%	14,247	2.1%
- Theft of service	61,761	8.6%	84,298	12.2%
Total Estimated Gas Adjustments	**718,680**	**100.0%**	**690,210**	**100.0%**

Source: Exhibits VII-19 and VII-32 within the December 2008 Stratified Management & Operations Audit of PGW

In addition, PGW had plans in place to monitor for unauthorized usage of inactive meters as discussed in Follow-up Finding and Conclusion No. X-7. However, the Company did not have procedures or methods for identifying theft of gas by active customers.

<u>Follow-up Finding and Conclusion No. VI-7</u> – PGW has become more proactive in its theft of gas program.

PGW employs a multifaceted approach for reducing theft of gas. Starting in fiscal year 2010, the Revenue Protection Unit (RPU) was moved into the FSD. This move allowed the RPU to share resources with the FSD enabling the RPU to regularly use between four to six FSD crews to investigate theft, terminate customers, etc. The RPU also analyzes data and reviews the soft off program (see Follow-up Finding and Conclusion No. X-7 for more information about the soft off program) aimed at identifying unauthorized usage. Furthermore, PGW utilizes a third party vendor to analyze consumption data (i.e., historical trends, customer usage, tampering indicators, weather patterns, etc.) in order to identify potential patterns indicating theft. The RPU, through use of the FSD crews, then performs a physical inspection of the meters to confirm whether or not theft is occurring.

An aggressive gas theft program is needed to protect the Company and ratepayers from the financial burdens and safety related issues of stealing natural gas service. In addition, by aggressively identifying and remedying gas theft, the Company has created a deterrent against future gas theft. As a result of PGW's gas theft program, the Company has reduced the amount of gas stolen from its distribution system.

The full benefits of the improved gas theft prevention efforts by PGW's Revenue Protection Unit and gas theft program are hard to quantify. By reducing theft of natural gas, there are at least three benefits that routinely occur; the ability to bill for previously unbilled usage, the mitigation of future unbilled gas costs for unmetered/stolen gas volumes, and gas safety improvements. Therefore, the maximum potential savings/benefits that could be achieved include PGW's back billing for estimated unmetered usage by particular customers (i.e., the combination of the opportunity cost of billing customers and costs related to purchased gas) and the estimated annualized reduction in gas cost for future thefts that will no longer be occurring. As of the end of our field work, PGW was designing a process to track the unmetered/stolen gas volumes that have been billed to customers. Consequently, the cost savings related to PGW's gas theft program was conservatively estimated as between $203,000 to $344,000 a year for the years 2008 through 2011 as shown in Exhibit VI-3. This savings is solely a calculation of the value of avoided future purchased gas costs as the actual amount collected by PGW cannot be quantified by the Company and therefore, the exact benefit to ratepayers is unknown. However, it is likely that PGW's gas theft program has realized savings in excess of those identified in Exhibit VI-3.

Exhibit VI-3
Philadelphia Gas Works
Estimated Cost Savings Resulting From Identified Gas Theft
2008 - 2011

Year	Volume Adjustment (MCFs)	Purchased Gas Costs
2008	55,337	$335,000
2009	56,775	$344,000
2010	33,512	$203,000
2011	55,337	$335,000

Note: Purchased Gas Costs are computed based upon the 2011 tariff rate of $0.606 per CCF.
Sources: Data Request SR-14 and Company Tariff.

<u>Staff's Follow-up Recommendation</u> – Track, quantify, and trend cost recovery efforts related to the gas theft program.

<u>Prior Recommendation</u> – Reassess PGW's future field operation staffing levels based on its needs taking into consideration pending retirements.

<u>Prior Situation</u> – Schumaker & Company contended that PWG's staffing levels were generally higher than their recent experience with other gas utilities. Moreover, Schumaker & Company recognized that PGW would likely experience a large number of employee retirements (perhaps as many as 400 out of 1,700) by 2012. In addition, the consultant noted that various programs within Field Operations could potentially be outsourced such as the Parts and Labor Program, Meter Change-Outs and Mark-outs or locates. Given PGW's AIMS program, Schumaker & Company suggested that a one-to-one replacement of retirees would not be needed and a fundamental decision should be made to take this opportunity to reduce staffing levels without the need for layoffs.

<u>Follow-up Finding and Conclusion No. VI-8</u> – PGW evaluates staffing levels and workloads continuously and also tries to plan for retirements.

As discussed in Follow-up Finding and Conclusion No. VI-4 the RM Group actively reviews staffing levels, workloads, overtime, etc. to assess if the FSD and Distribution Departments are adequately staffed. One of the primary roles of the RM Group is to explore the upcoming need for special or temporary workloads. One such area currently being explored is the Meter Change out program. The Company is currently analyzing whether or not this task could be performed in house or should be outsourced. Furthermore, the Company performs an analysis on its parts and labor program to ensure it is a net benefit to PGW (see Follow-up Finding and Conclusion No. X-6).

Upcoming retirements are handled individually by the FSD and Distribution Departments. The Human Resources and Organizational Development Departments aid the operating departments by providing data on potential retirees. This information as well as a Corporate Retirement Strategy allows FSD and the Distribution Department to plan accordingly. One mechanism used is to hire additional staff before the end of the calendar year since many retirements occur in the first few months of a new year. Overall, PGW's staffing levels in the FSD and Distribution Departments have remained relatively consistent from 2006 through 2011. These staffing levels are further validated by the RM Group's work to optimize staffing levels, overtime, and workloads. One of the challenges the Company faces is replacing its experienced workforce with one that is sometimes much less experienced. However, the Company has improved the efficiency and effectiveness of its field forces through AIMS, RM Group, etc. Therefore, the Company is proactively addressing retirements, workloads, overtime, training, etc. in a consistent and conscientious manner.

<u>Staff's Follow-up Recommendation</u> – None.

VII. EMERGENCY PREPAREDNESS

Background - Effective June 11, 2005, Pennsylvania Public Utility Commission (PUC or Commission) regulations at 52 Pa. Code § 101.1-101.7 (Chapter 101) require jurisdictional utilities to develop and maintain appropriate written physical security, cyber security, emergency response, and business continuity plans to protect the infrastructure within the Commonwealth and ensure safe, continuous and reliable utility service. Along with the requirement to establish these "emergency preparedness" plans, a utility is also required to annually file a Self Certification Form with the Commission. This form is comprised of 13 questions as shown in Exhibit VII-1 below.

Exhibit VII-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?	1.
2	Has your physical security plan been reviewed in the last year and updated as needed?	2.
3	Is your physical security plan tested annually?	3.
4	Does your company have a cyber security plan?	4.
5	Has your cyber security plan been reviewed in the last year and updated as needed?	5.
6	Is your cyber security plan tested annually?	6.
7	Does your company have an emergency response plan?	7.
8	Has your emergency response plan been reviewed in the last year and updated as needed?	8.
9	Is your emergency response plan tested annually?	9.
10	Does your company have a business continuity plan?	10.
11	Does your business continuity plan have a section or annex addressing pandemics?	11.
12	Has your business continuity plan been reviewed in the last year and updated as needed?	12.
13	Is your business continuity plan tested annually?	13.

* 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.

The Audit Staff reviewed the most recent (2011) Self Certification Form submitted by Philadelphia Gas Works (PGW or Company) to determine the status of its responses. Our examination of the Company's emergency preparedness included a review of the physical security plan, cyber security plan, emergency response plan, business continuity plan, and all associated security measures. In addition, the Audit Staff performed inspections at a sampling of PGW's facilities. Due to the sensitive nature of the information reviewed, specific information is not revealed in this report but rather the generalities of the information are summarized.

A different PGW department has primary responsibility for each specific Chapter 101 plan (i.e., physical security, cyber security, emergency response, and business continuity). For instance, the Information Services (IS) Department has primary responsibility/ownership for cyber security. However, each plan requires the input and coordination with various departments throughout PGW. As an example, each department has a business continuity representative that is tasked with coordinating their respective department's response to the various planned emergency scenarios. Ultimately, PGW's general approach for all of its emergency preparedness is to provide a safe working environment, supply a safe and reliable product to customers, protect its assets, and ensure continuity of service.

The Stratified Management and Operations Audit of Philadelphia Gas Works (PGW or Company), conducted by the consulting firm Schumaker & Company, released by the Commission on February 5, 2009 at D-2009-2086453, contained two recommendations regarding emergency preparedness within the Support Services functional area. In this section, the two prior recommendations and prior situations are reviewed and three follow-up findings and one recommendation are presented.

Prior Recommendation – Maintain the desired schedule for disaster recovery tests, including frequent use of comprehensive tests that are fully documented.

Prior Situation – Schumaker & Company found that PGW had adequate disaster recovery and cyber security plans and that it was performing disaster recovery tests on an annual basis but was concerned that it needed to improve its disaster recovery test planning. PGW did not have a schedule for its disaster recovery tests and lacked documentation of its disaster recovery test controls.

Follow-up Finding and Conclusion No. VII-1 – PGW performs yearly disaster recovery tests and documents the controls, results, and recommendations.

Disaster recovery plans and tests should be conducted on an annual basis to ensure the continued readiness of the utility. In addition, the controls employed, testing procedures and results should be documented.

PGW is performing annual disaster recovery tests, although the exact time of the testing deviates. In addition, the Company is fully documenting the methods used to test its readiness as well as the results, recommendations, etc. Any identified problems or recommendations are then prioritized for remediation.

Staff's Follow-up Recommendation – None.

Prior Recommendation – Incorporate disaster recovery into the business-continuity plan process and expand its focus.

Prior Situation – Schumaker & Company concurred with a PGW Internal Audit Department's report on the Company's business continuity planning process that resulted in several findings including the following:

- All of the key business units should work with the Information Services Security organization to review the disaster recovery plan and be included in performing the disaster recovery testing of business application systems.
- A schedule should be developed to clearly communicate to all parties the comprehensive nature of the disaster recovery plan for a specific time period.
- Without a comprehensive disaster recovery plan that has been thoroughly tested, in the event of a disaster it is unlikely that critical data, systems, business applications, and networking services will be recovered without a significant interruption.

In addition, Schumaker & Company found that neither the IS Department nor PGW as a company had addressed what would happen beyond the 48-hour recovery period for critical applications or pandemic situations.

Follow-up Finding and Conclusion No. VII-2 – PGW has incorporated each department, including Information Services, into its business continuity planning and has addressed long term business recovery and pandemic situations.

Each PGW department is responsible for creating an action plan in response to various disaster/emergency scenarios such as loss of workforce, facilities, and gas supply. Each department's action plan is aimed at identifying critical functions and how the department could continue operating in the event resources are lost. These action plans are submitted to PGW's Business Continuity (BC) Group who maintains the documents and can formulate and maintain a corporate business recovery plan. In addition, the BC Group plans to start auditing the various departments' plans sometime in 2012.

PGW also performs an exercise or test on a yearly basis, including table top and field drill scenarios, to ensure departments have appropriately addressed their action plans. Furthermore, PGW's IS Department has held meetings with every other department to further explain business recovery of information services equipment and how it might impact the Company. As a result, every department and management team within PGW has ownership for their respective business continuity actions and roles. This process also ensures that all departments are tested and prepared for emergencies.

Staff's Follow-up Recommendation – None.

Follow-up Finding and Conclusion No. VII-3 – PGW has multiple ways for its employees to remotely access its computer systems.

Remote access to computer systems enables employees to perform critical tasks from home, on the road, or from anywhere with internet access. However, remote access creates a portal into the Company's computer systems that could allow for possible entry of unwanted parties (i.e., hackers, malware, etc.). During our field work in late 2011 and early 2012, the Company had two allowable methods for employees to obtain remote access. While almost all employees were utilizing one method, there was a finite group using a second, less secure method. As a result, the Company had to monitor both entry points.

It was indicated to the Audit Staff that the less secure of the two methods was effectively eliminated as an option for employees about the time our field work ended; however, the Company needed to monitor activity for a short period before permanently disabling this option.

Staff's Follow-up Recommendation – Limit remote access to PGW's computer systems using only highly secured methods.

VIII. INFORMATION TECHNOLOGY

<u>Background</u> – The Stratified Management and Operations Audit of Philadelphia Gas Works (PGW or Company), conducted by the consulting firm Schumaker & Company, released by the Commission on February 5, 2009 at D-2009-2086453, contained nine recommendations within the Information Technology section of the Support Services Chapter. Schumaker & Company rated this functional area as needing minor improvement. In this section, five prior recommendations and prior situations are reviewed and five follow-up findings and one recommendation are presented. In addition, two prior recommendations and prior situations from the Management and Operations Audit's Information Technology section are presented in the Chapter VII - Emergency Preparedness.

<u>Prior Recommendation</u> – Formalize a regularly conducted, long range planning process.

<u>Prior Situation</u> – PGW's Information Services (IS) organization was not routinely performing long range IS planning. The most recent plan available for Schumaker & Company to review although well thought out was a three year old plan. As a result, PGW did not have an up-to-date detailed IS strategic plan and was instead relying upon a list of projects it expected to undertake. However, the Chief Information Officer (CIO) was working to develop a new IS strategy which included performing annual reviews with updates expected every two to three years.

<u>Follow-up Finding and Conclusion No. VIII-1</u> – PGW has established a routine long range planning process for the IS organization and has compiled an up-to-date IS strategic plan.

PGW's IS organization implemented its long range planning process in 2010. As a result, the CIO, Directors, Managers, and Department Representatives (i.e., planning team) provide input into the planning process annually. In addition, the Business Plan Application User Guide is a crucial component that helps to facilitate the assessment of opportunities and initiatives that may be included within the IS strategic plan. This guide provides comprehensive instructions on creating a business strategy for the IS organization that includes objectives, technological trends, resources, challenges, strengths, and weaknesses. Through a series of meetings, in 2009 the planning team developed the first strategic plan which covered the next five years, 2010-2014 respectively. Generally, the strategic plan is reviewed and updated annually and once completed it is presented to PGW's executive management for final approval.

The IS Strategic Plan delineates the IS organization's strategic goals that support PGW's corporate objectives. Integrated into the plan is PGW's mission and vision statement, the mission statement defines the IS organization's purpose and the key measures of success. The vision statement defines the IS organization's purpose and direction. Consequently, the IS organization developed a vision statement directly aligned to PGW's vision statement; it communicates IS' role in establishing the course of action to support PGW's mission statement. In addition, the long range IS plan clarifies the strategic intent and the direction that will result in achieving its goals. The goals are directly aligned with the IS strategic objectives incorporated in the IS Strategy Map, a high level summary of the strategic direction, included within the IS long range plan. Furthermore, the IS long range plan outlines the business trends, risks, and opportunities and emphasizes their potential impact specific objectives.

Staff's Follow-up Recommendation – None.

Prior Recommendation – Complete existing IS policies and procedures and expand focus to include internal IS guidelines.

Prior Situation – PGW had IS enterprise wide policies on its intranet for items such as internet use, email retention, etc. Furthermore, PGW employees were required to review and then acknowledge that they had reviewed various IS related policy documents and guidelines. However, several of the IS policies and procedures were incomplete and/or being developed at the time of the Schumaker & Company audit. Additionally, the IS organization was in the process of creating internal orientation materials that included detailed procedures on how to run individual IS departments and their associated processes.

Follow-up Finding and Conclusion No. VIII-2 – PGW has finalized and distributed its IS policies and procedures and created extensive IS organization orientation materials that outline the internal guidelines, policies and procedures.

During the fourth quarter of 2009, the Company finalized all previously incomplete IS related policies and procedures and placed them on PGW's intranet and in its Policy Center as part of its strategic documentation effort. Additionally, extensive orientation materials were created to guide the efficient operation of the various IS organization's groups. The IS orientation materials include an electronic employee and consultant handbook which address the entire IS organization. Moreover, in an effort to keep existing IS policies current and relevant a formal updating process was established to address ever changing technology trends.

PGW has implemented an IS policy and procedure update and review process that involves the identification of obsolete policies and the necessity for introducing new policies. Generally, the Director of Information Controls and Compliance annually reviews existing policies and if a policy requires removal or updating, consults with the CIO to make final decisions. The CIO also approves the introduction of new policies; however, both the Policy and Procedure Writers Group which resides in the Customer Affairs Organization and the department that the policy may affect are consulted. Policy and procedure writers help to determine whether the new policy is IS specific or enterprise wide. Once the type of policy is determined, any department that would be affected is given the opportunity to provide their input concerning the proposed policy in an effort to maintain department specific standards.

Staff's Follow-up Recommendation – None.

Prior Recommendation – Expand the purpose of the Quality Assurance (QA) organization to become actively involved in all phases of major technology projects.

Prior Situation – The QA group within the IS Information Controls and Compliance Services organization was underutilized since the primary focus of the group was on quality assurance testing rather than all phases of PGW's applications development /systems implementation projects. More specifically, of the eight major tasks performed by the QA organization in 2007, six involved testing related activities, one involved creation of a monthly Asset Information Management System (AIMS)2 labor hours report, and one involved participation in the company job fair and recruitment of QA resources. The QA group expressed an interest in being more involved in requirement gathering but had not been used in any expanded capacity.

Follow-up Finding and Conclusion No. VIII-3 – PGW has modified its Project Development Methodology to involve QA analysts into all phases of technology projects.

PGW acknowledged the need to expand its QA organization's involvement throughout its technology project development stages. In 2009, the Project Development Methodology (PDM) procedure manual was modified to incorporate changes concerning the QA team. The revised procedure manual includes a project roles matrix that outlines the QA team's level of involvement in all phases of the technology project lifecycle. The PDM procedure manual is reviewed and updated at least once a year by the IS organization and the Enterprise Strategic Services group.

Furthermore, beginning in 2008 PGW has provided additional training to its QA Analysts which has enhanced the group's ability to utilize the matrix mapping of requirements implemented in 2010. The matrix mapping of requirements was created to ensure adherence to a minimum quality of standards. As a result, the QA team is able to update, trace, and monitor the overall progress of the testing for the software requirements and/or specification of each technology project.

Staff's Follow-up Recommendation – None.

Prior Recommendation – Use Microsoft Project Server to effectively track activities, milestones, and resources for all major technology projects.

Prior Situation – PGW was utilizing a Business Technology Consultant to maintain project plans; however, upon its request Schumaker & Company did not receive the up-to-date plans for the PGW mainframe elimination project. This was an indication that PGW was not effectively monitoring the progress of its IS projects.

Follow-up Finding and Conclusion No. VIII-4 – PGW has implemented the Microsoft Project Server to track all major technology projects.

In 2010, PGW implemented a process to internally track the activities, milestones, and resources for all technology projects. The process is outlined step by step in the Microsoft Project Professional and Project Web Access User Guide. This instructional guide explains how to create and connect a project to the Project Server. In addition to the initial steps to start the project tracking process, the guide provides instructions to add proposals, charge time to projects, transfer time charged to projects, and submit status reports. Once the project is connected to the Project Server, an employee involved in the project can make changes that are viewable by others in real-time. Furthermore, within the Project Web Access application there are several different ways to track and manage each project's progress. The use of the Project Server helps to ensure standardization across projects with a common set of processes that provide guidance to Project Managers concerning the best practices to use.

Three separate documents provide guidance on the best practices to be utilized for the Project Server. The first document is the Project Development Methodology implemented in 2010. This procedure manual outlines the set of common practices to develop a project management strategy. The second document is the Microsoft Project Professional and Project Web Access User Guide which was discussed above. The third document is the Blueprint for Operational Excellence which provides additional guidance on best practices. Furthermore, PGW receives assistance for implementing IS best practices through its agreement with an information technology consulting firm, Springhouse Education and Consulting Services. The consulting firm's contract provides PGW with access to training sessions, best practices for implementing Microsoft Project Server 2003, support for Microsoft Project Server 2003 and Project Web Access, and performing preventive maintenance.

<u>Staff's Follow-up Recommendation</u> – None.

<u>Prior Recommendation</u> – Establish Service Level Agreements with all major IS customers.

<u>Prior Situation</u> – PGW's IS organization had a Service Level Agreement (SLA) with the Customer Contact Center (CCC) which dictates the level of service to be provided for the CCC. However, there was no formal feedback regarding the client group's expectation and no standards for holding the IS organization accountable for its performance. In addition, the IS department allocation costs were calculated using an out of date methodology which had not been reviewed since 2004. Similar SLAs had not been established with other user groups (i.e., Operations, Finance, etc.).

<u>Follow-up Finding and Conclusion No. VIII-5</u> – Comprehensive SLAs have been established with all major IS customers.

In 2011, Customer Affairs, Field Operations, and Finance were identified as the IS organizations major customers and service level agreements were established for each. PGW also instituted a formal feedback mechanism to track and measure the level of IS service provided. The process includes a metric that identifies and then highlights any outstanding issues. In addition to the metrics, each client is provided with a dedicated contact person and an opportunity to address any questions or concerns directly to the IS Department.

Furthermore, since 2009, PGW has recognized a need to update the chargeback methodology used to assess the cost allocated to each department. In 2009, the IS organization began to discuss how to effectively allocate its costs to its clients. Consequently, in 2011 the IS organization started to work in partnership with the Accounting Department in an effort to streamline updates or revisions to the chargeback methodology.

Staff's Follow-up Recommendation – Expedite completion of the ongoing review of the IS cost chargeback methodology and update in a timely manner, as appropriate.

IX. PROCUREMENT SERVICES AND MATERIALS MANAGEMENT

Background – The Stratified Management and Operations Audit of Philadelphia Gas Works (PGW or Company), conducted by the consulting firm Schumaker & Company, released by the Pennsylvania Public Utility Commission (PUC or Commission) on February 5, 2009 at D-2009-2086453, contained 26 recommendations within the Procurement Services and Materials Management section of the Support Services Chapter. Schumaker & Company rated this functional area as needing significant improvement. In this section, 13 prior recommendations and prior situations are reviewed and 13 follow-up findings and 7 recommendations are presented. However, a total of only 12 prior recommendations and prior situations are presented as two prior situations related to inventory levels and inventory turnover have been combined for report purposes into one follow-up finding (Follow-up Finding and Conclusion IX-8) due to their similarity.

Prior Recommendation – Identify operations and functions that could be better integrated between the Procurement Department and the Materials Management Department.

Prior Situation – The Procurement Department was part of the Finance Organization prior to 2007 when it was transferred into the Supply Chain Department. The primary reason for the reorganization was to bring the Procurement and Materials Management Departments closer together. At the time of Schumaker & Company's audit, although both Departments resided within the Supply Chain Department, they remained separate organizations with only limited, if any, functions integrated.

Follow-up Finding and Conclusion No. IX-1 - PGW has integrated the operations of the Procurement and Materials Management Departments.

PGW evaluated and restructured the entire Supply Chain Department to fully integrate the Procurement and Materials Management Departments as part of the supply chain initiative which began in 2010. This integration placed both functions (i.e. the Procurement Group and Materials Management Group) [3] under the Supply Chain Commodities Manager which facilitates improvement in operational efficiency, workflow, and service to the Supply Chain Department's clients. The restructuring assigned buyers to categories of products instead of departments, as had been done in the past, and provided a common set of goals and objectives for the Supply Chain Department. Also, buyers were moved into the same building as the Materials Management staff which enables more efficient communication, and faster workflow, which ultimately helps to increase customer service.

An upgrade to the Company's information management system, which was started in January 2012 and scheduled to be completed by June 2012, will further help to integrate the Procurement and Materials Management Groups. Among the list of

[3] Following the restructuring of the Supply Chain Department individual Procurement and Materials Management Departments were combined under the Supply Chain Commodities Manager. Throughout this section "Procurement Group" and "Materials Management Group" will be used to distinguish their separate functions or functional areas.

functionalities management anticipates to be gained is an order management module for the information management system that should provide for data flow from AIMS, the Company's mobile information management system. This functionality should eliminate some paper processes from the daily workflow within, and outside of, the Supply Chain Department.

Staff's Follow-up Recommendation – None.

Prior Recommendation – Initiate a formal material demand requirements forecasting program in the Procurement Department.

Prior Situation – No group within PGW, either in the operating departments or the Supply Chain Department, did a thorough job of forecasting material usage on an annual basis. The only forecasting that was completed was based solely on historical data. Consequently, material forecasts did not incorporate planned work into the material demand projections.

Follow-up Finding and Conclusion No. IX-2 - PGW is working to develop a comprehensive forecasting model.

In order to better forecast material purchases needed by the Company, PGW has developed a materials forecasting model referred to as the Forecaster Module (Module). The Company started implementing the Module in 2010 but it has not yet fully completed implementation. The Module is being used to create material demand requirements forecasts for the Supply Chain Department. The Module uses historical usage, and considers seasonal factors, operational work load, special projects, and marketing projections to project future material needs. The Company expects the Module to be fully implemented in 2013.

However, the elements of the Module in place as of early 2012 are very tedious to use, requiring information to be pulled from the inventory management system and then manually analyzed and manipulated to arrive at the final materials forecast. This process, while in developmental stages, is inefficient, consuming both time and resources. Until the Module is fully developed and implemented, enhanced communications between the Procurement Group and operating departments will help to further improve forecasting, allowing the Procurement Group to provide procurement services in a more effective, efficient, and timely manner.

Staff's Follow-up Recommendation – Strive to improve forecasting techniques and timely complete the implementation of the material usage forecaster model.

Prior Recommendation – Change the focus of the Procurement Department from being primarily an administrative group to being a proactive procurement organization that is actively involved in all aspects of the purchasing process.

<u>Prior Situation</u> – The Procurement Department was spending a large portion of time on administrative based tasks as a result of the procurement process being paper intensive. The Department had to produce, handle and deal with large amounts of paper due to the lack of any electronic procurement capabilities. Available procurement software, via the Oracle system used by PGW, could have provided the necessary capabilities to increase automation and eliminate the paper intensive processes in place within PGW; however, the Department was not utilizing these capabilities to their potential.

<u>Follow-up Finding and Conclusion No. IX-3</u> - The Procurement Group is actively involved in many aspects of the purchasing process.

Although PGW's Procurement Group, is still performing some paper intensive tasks, such as sending Request for Quotes (RFQ's) by fax, it is actively engaged in the purchasing process. As of early 2012 Buyers were devoting 30 to 40% of their time performing proactive procurement functions such as looking for new vendors, minority vendors, negotiating freight and shipping charges, obtaining more stable prices and renegotiating expiring contracts. These efforts help to lower material costs and locate suppliers with better products.

Additionally, the Buyers in the Procurement Group actively track outstanding purchase orders and interact with the Materials Management Group's personnel to resolve discrepant (i.e. incorrect, partially damaged, short of items, etc.) and late material order problems. For example, when the inventory that arrives in receiving is incorrect the Materials Management Group will fill out a discrepant materials form and the buyers will work to resolve the problem. Also, if an order is late the buyers contact the supplier to check on the status of the order and provide updates to the Materials Management Group.

Additionally the Supply Chain Department is working to implement a vendor scorecard to track vendor performance in areas such as on-time deliveries, product quality, service and price stability, and take corrective action if a vendor's score falls below a set benchmark (as discussed in Follow-up Finding and Conclusion IX-4). The Supply Chain Department also tracks key metrics such as inventory turnover, disabled business enterprise purchases customer satisfaction, and savings so all employees can see how their efforts impact the Department and work to increase the quality of service provided to client departments. From August 2010 to November 2011, the Supply Chain Department documented realized saving of approximately $1,063,000 by negotiating more advantageous contracts, utilizing new low cost vendors or products, implementing process changes, etc. and has set a goal to save an additional $400,000 in 2012. See Follow-up Finding and Conclusion No. IV-4 for additional information regarding PGW's realized savings from the Business Transformation initiative.

As of early 2012, an upgrade to the Company's inventory management system was underway with completion expected in June 2012. The upgrade is expected to further streamline the Supply Chain Department by automating current paper based processes. The upgrade will eliminate the need to fax material requests; provide a direct link with the Automated Information Management System (AIMS) used by the operating departments enabling the inventory management system to allocate materials to specific work orders and track not only what materials are in stock but what has been dedicated to specific work orders; and provide a Services Procurement Module to help manage spending against contracts. The efforts to further automate the Supply Chain Department will help increase productivity, cut costs and improve overall service.

Staff's Follow-up Recommendation – **None.**

Prior Recommendation – Develop a program to perform regular surveys of the operating department clients of the PGW Procurement Department concerning the performance of the largest vendors and any other vendors with which problems have been experienced in the past.

Prior Situation – The process for obtaining vendor performance information was informal in nature and primarily was driven by situations where significant problems with a vendor's performance had been experienced. When an operating department experienced a problem with a vendor, a Vendor Evaluation Form was completed describing the problem after which the Procurement Department would work to resolve the problem. If the problem could not be resolved, future orders were placed through another supplier but vendors were seldom disqualified from the procurement process as Management believed disqualifying a vendor would be unfair.

Follow-up Finding and Conclusion No. IX-4 - **PGW's Supplier Performance Management Program is not complete or fully implemented.**

PGW has developed a vendor scorecard to be used for tracking vendor performance and take corrective actions against vendors who do not meet established performance standards. As of early 2012, the vendor scorecard was being tested with approximately six vendors in a pilot program. The pilot program is expected to continue through 2012 with a full rollout of the scorecard anticipated in 2013.

PGW's pilot vendor scorecard evaluates four major categories; delivery, quality, service, and price. For the delivery metric, the Company compares the delivery date promised to the buyer when the goods were ordered to the actual delivery date. The quality metric is based on discrepant material reports from the operating departments against a certain supplier. The service metric is based on an evaluation score from procurement staff as to the quality of the information received from the vendor, ease of working with the vendor, etc. The final metric, price, evaluates the stability of a vendors prices over time and the degree of short term price fluctuations.

Although the scorecard is in a pilot program and changes are still possible before a complete rollout, management indicated the scorecard assessment is based on a scale of 0-100 with minimum threshold performance levels to be established. If service falls below the minimum threshold level, corrective action will be taken against a supplier. Plans are to review the scorecard quarterly and for corrective action to range from a written reprimand to more severe consequences such as disqualification.

Currently, the pilot vendor scorecard was developed to evaluate vendors supplying goods only. A scorecard for services has not yet been developed for service providers.

Vendor performance should be consistently tracked and scored on a regular basis to identify overall performance, potential problems with products or services, and facilitate the Procurement Group's efforts to work with vendors to improve their performance and or, their termination as a potential vendor. Without complete vendor performance information available, the Procurement Group's buyers do not have the necessary supplier performance information to select the best vendors for specific products and services and ability to work with suppliers to improve their performance.

Staff's Follow-up Recommendation – **Finalize the development and implementation of the vendor scorecards for both goods and services.**

Prior Recommendation – Develop a program to collect and use metrics that are related to individual buyer performance.

Prior Situation – PGW's Procurement Department did not have established performance standards, and no metrics were collected on Buyer performance. The only performance evaluations performed by the Procurement Department were informal and based on management's observations of the Buyers and feedback, in the form of complaints, from the Operating Departments. A set of metrics and standards would allow management to provide feedback to Buyers on job performance and identify Procurement Department strengths and weaknesses.

Follow-up Finding and Conclusion No. IX-5 - PGW has developed an operating department client survey to track the overall performance of the Supply Chain Department, including buyer performance.

PGW has created a satisfaction survey to gauge the Supply Chain Department's performance in the eyes of their client operating departments. The initial survey was conducted during June and July 2011. The survey reviewed the Supply Chain Department as a whole, while breaking down the Procurement and Materials Management Groups related to their individual functions including survey feedback on overall buyer performance. Moving forward, the client satisfaction survey is to be completed annually, via electronic responses that allow the responding Supply Chain Department clients to remain anonymous.

The Materials Management section of the survey evaluates the Supply Chain Department's ability to maintain the right products and quantities, as well as the service provided when filling orders. The Procurement Services section of the survey evaluates employee communication and knowledge, as well as their ability to provide a range of suppliers and procure products in a timely manner. The Supply Chain section also evaluates the Department more broadly looking at overall conduct of employees, flexibility to adapt, ability to work with client needs, and ease of doing business with clients.

Survey Results are reviewed by management as part of a Steering Committee for continuous improvement which will initiate corrective action as needed, such as requiring additional training or changing processes and procedures. The Supply Chain Department acts as the connection between the vendors supplying the needed products and the operating departments. Therefore, it is important to track and continuously improve the quality of services and goods provided to the operating departments. The initial survey conducted by the Supply Chain Department in June and July 2011 identified a few areas in which improvement could be made. Since reviewing the survey results, the Department is working to implement new goals and metrics to improve service in the areas needing the most improvement. In addition, the surveys have helped to identify other training methods/opportunities for the buyers to help improve services. One example is having the buyers visit work sites and warehouses to help bring procurement employees closer to their clients and the work they perform.

Staff's Follow-up Recommendation – None.

Prior Recommendation – Develop a program to collect metrics related to the savings or contributions to PGW's profitability that are achieved through the work of the Procurement Department.

Prior Situation – The Procurement Department had no system in place to measure achieved savings or contributions to the profitability of PGW. Historically the Procurement Department had a purchasing analyst who was responsible for producing a purchasing results metrics report. However, due to economic reasons, this position had been eliminated. In addition, PGW did not have metrics on buyer performance, buyer feedback mechanisms, or other buyer performance measures. Many contemporary purchasing organizations had developed metrics that enable them to clearly demonstrate their contribution to the performance of the overall company.

Follow-up Finding and Conclusion No. IX-6 - PGW's Supply Chain Department tracks savings and contributions as part of the Supply Chain Initiative.

Internal departments, such as PGW's Supply Chain Department, should track any savings and contributions achieved by the department for the benefit of the overall company. The documented contributions bring credibility to the department and legitimacy to projects by quantifying the department's performance since contributions are often overlooked by other areas of an organization. As part of PGW's Supply Chain Initiative, the Supply Chain Department developed the Supply Chain Initiative Savings Tracker (Tracker) which tracks overall savings achieved by the Department. The Tracker documents total savings and avoided cost, date, responsible employee(s), recurrence, if the savings involved a culture change, and what was done differently to realize the savings.

The Tracker and Department Metrics are openly displayed so employees can see how the Supply Chain Department is performing each month, as well as indirectly providing recognition to those who have achieved savings for the Company. From

August 2010, when the Tracker was implemented, through November 2011, the Supply Chain Department documented approximately $631,365 in one time savings and avoided costs and $431,635 in associated recurring savings[4]. A goal of an additional $400,000 in savings has been established for 2012.

Supply Chain Department metrics and associated goals for inventory turnover, Disadvantaged Business Enterprise (DBE) participation, customer satisfaction, and savings are tracked by the Department. These metrics provide valuable information that helps to identify deficiencies which can lead to additional metrics that should be tracked to further help the performance of the Department. For example, following the results of a recent client survey conducted by the Supply Chain Department, metrics are being developed to track cycle count accuracy and material shortages to help improve operations.

Staff's Follow-up Recommendation – None.

Prior Recommendation – Explore the available options for creating a purchasing consortium arrangement with the City of Philadelphia Procurement Department.

Prior Situation – PGW had looked into a purchasing consortium with the City of Philadelphia in the past but never pursued the option. Since that time, no further attempts had been made to review the situation and pursue a consortium agreement. While many of the materials needed by PGW are specific to the gas industry and not used by the City of Philadelphia, entering a consortium agreement could yield savings on common items such as vehicles, fuel, office supplies, contractor services, professional services, etc.

Follow-up Finding and Conclusion No. IX-7 - PGW has entered into a purchasing consortium arrangement with the City of Philadelphia.

Organizations should be continuously searching for ways to reduce the cost of services and materials. Given PGW's unique circumstances, it is only logical that it would take advantage of their ability to use city and state contracts when proving advantageous. Through the use of city and state contracts, PGW has been able to realize the benefits of volume purchasing power in some instances.

Given PGW's unique relationship to the City of Philadelphia, the Company is able to use city and state contracts to purchase certain goods and services, mainly items common to both organizations. The passage of the Commonwealth Procurement Code, Act 57 of 1998 permits local public procurement units (LPPUs) and state-affiliated entities to engage in cooperative purchasing with the Commonwealth. Initially, the Department of General Services (DGS) limited the LPPUs' cooperative purchasing options to certain statewide contracts. In the Spring of 2004, DGS developed the COSTARS Program to increase the cooperative purchasing options available to its

[4] Recurring savings period is longer than 1 year in most instances, ranging from an unknown time period to up to 4 years.

Members. Any contract that DGS bids as a COSTARS contract is for *exclusive* use by LPPUs and state-affiliated entities who are registered with DGS as COSTARS members. As a municipally owned entity, PGW is eligible to, and has registered with the Commonwealth of Pennsylvania's COSTARS cooperative purchasing program to participate in the contracts for goods and services entered into by the Pennsylvania Department of General Services.

The categories of items being assessed by PGW for possible purchase through the local and state contracts include electronics (i.e., computers, printers and copiers), office supplies, common services (i.e., janitorial, cleaning and advertising), and professional services (i.e., legal and accounting). PGW's Procurement Group began evaluating purchases of goods and services via city and state contracts in 2010, but has not tracked the benefits realized when these contracts were used to purchase goods.

The decision to utilize city and state contracts are made on a case-by-case basis. Therefore, while PGW's Procurement Group indicated it does use city and state contracts to purchase goods and services, it was unable to capture and document specific items purchased through the contracts or the extent of any savings the Company has realized as a result.

<u>Staff's Follow-up Recommendation</u> – Develop a procedure for tracking the savings associated with the purchases made through city and state contracts.

<u>Prior Recommendation</u> – Initiate increased efforts to reduce the level of inventory in Materials Management Department (MMD) storerooms; and initiate a focused effort to increase the level of inventory turnover in the MMD storerooms in aggregate.

<u>Prior Situation</u> – In 2007, PGW's average inventory turnover ratio was 1.68 turns, well below the acceptable level of 2.0-4.0 turns for a natural gas distribution company (NGDC). The MMD was holding approximately $9.0 million in inventory at the end of fiscal year 2007 but believed $7.0 million was a feasible level. PGW anticipated that it could improve inventory turnover by reducing inventory, eliminating obsolete inventory, working with vendors and consolidating storerooms to realize a one time savings or inventory reduction of $2.0 million and annual savings of $0.5 million in reduced carrying costs. Additionally, the MMD believed there were certain items designated as spare parts that should have been included in general inventory and vice versa.

<u>Follow-up Finding and Conclusion No. IX-8</u> – PGW has reduced its average inventory levels and increased inventory turnover from 2007 to 2011.

Holding excessive inventory reduces inventory turnover, ties up capital and causes additional inventory costs to be incurred. In 2008, PGW held an average inventory level of $8,050,000, approximately $1.1 million above what management believed to be an optimal level for average inventory. Subsequently, PGW took corrective action to reduce inventory to more optimal levels. As presented in Exhibit IX-

1, PGW has reduced average inventory from approximately $8,050,000 million in fiscal year 2008 to $6,959,000 in fiscal year 2011.

Exhibit IX-1
Philadelphia Gas Works
Average Inventory Levels by Warehouse
2008 - 2011

Warehouse	2008 Average Inventory	2009 Average Inventory	2010 Average Inventory	2011 Average Inventory	Average Reduction 2008-2011
Tioga	$ 2,262,553	$ 2,358,051	$ 2,193,507	$ 2,288,303	$ (25,750)
Montgomery	898,843	920,388	827,421	904,186	(5,343)
Passi-Mini	42,582	38,278	34,769	34,828	7,754
Passyunk	1,125,692	1,044,707	986,215	884,851	240,841
Stationery	65,376	55,138	48,382	53,603	11,773
Richmond	3,242,760	2,243,966	2,314,288	2,446,322	796,438
Fleet	412,679	380,995	353,883	346,717	65,962
Totals	$ 8,050,485	$ 7,041,522	$ 6,758,465	$ 6,958,811	$ 1,091,674

Source: Data Request MM-3 and Auditor's Analysis

In order to maintain inventory at optimal levels, PGW performs regular monthly processes to review inventory for aged and obsolete items or excess stock. Additionally, the Materials Management Group[5] (MMG) is working to reevaluate all inventory minimum and maximum (min/max) levels based on a number of factors including each item's four year usage history and lead time requirements. An additional element that should eventually further reduce inventory is the Company's warehouse consolidation project which has been awaiting approval by the City of Philadelphia since November 2010.

Due to the inventory reductions made by the MMG, the Company's overall inventory turnover increased from approximately 1.68 turns in 2007 to 2.15 turns in 2011, which is within the acceptable range of 2.0 to 4.0 turns for a NGDC. Exhibit IX-2 shows inventory turnover levels by warehouse for the fiscal years 2007 through 2011. Inventory turnover is generally calculated by dividing total net annual inventory issues by 12 month average inventory balances excluding emergency stock. However, because PGW cannot identify the full value of its emergency stock, the inventory turnover calculation presented in Exhibit IX-2, is inclusive of all inventory items with the exception of spare parts, which has the effect of actually understating turnover levels. By assuming PGW's emergency stock levels account for approximately 10% of average inventory balances, the Audit Staff recomputed PGW's inventory turnover excluding

[5] As part of the Supply Chain Initiative the Supply Chain Department was restructured integrating the Procurement Department and Materials Management Department under the Supply Chain Commodities Manager. In order to distinguish between the functional areas "Procurement Group" and "Materials Management Group" will be used throughout this section.

emergency stock. PGW's adjusted inventory turnovers by warehouse are depicted within Exhibit IX-3.

Exhibit IX-2
Philadelphia Gas Works
Inventory Turnover by Warehouse Location
2007 - 2011

	Tioga	Montgomery	Passi-Mini	Passyunk	Stationery	Richmond	Fleet	Total
2007	1.81	1.72	2.73	0.29	2.03	0.61	1.93	1.68
2008	2.27	1.75	2.59	0.30	2.33	0.06	1.93	1.53
2009	2.10	2.67	2.62	0.27	2.69	0.50	2.01	2.05
2010	2.57	1.96	3.16	0.35	2.64	2.84	2.50	2.32
2011	2.57	1.92	1.90	0.22	2.32	0.52	2.62	2.15

Source: Data Request MM-3 and Auditor's Analysis

Exhibit IX-3
Philadelphia Gas Works
Inventory Turnover by Warehouse Location
Adjusted to Exclude Emergency Stock[6]
2007 - 2011

	Tioga	Montgomery	Passi-Mini	Passyunk	Stationery	Richmond	Fleet	Total
2007	2.01	1.91	3.04	0.32	2.26	0.67	2.14	1.87
2008	2.52	1.95	2.87	0.34	2.58	0.07	2.14	1.70
2009	2.34	2.97	2.91	0.30	2.99	0.56	2.23	2.28
2010	2.86	2.17	3.51	0.39	2.93	3.16	2.77	2.57
2011	2.86	2.14	2.11	0.24	2.57	0.58	2.91	2.39

Source: Data Request MM-3 and Auditor's Analysis

As shown in Exhibits IX-2 and IX-3, PGW's 2011 inventory turnover increased from 2.15 turns to approximately 2.4 turns after adjusting for emergency stock. It should be noted that both Richmond and Passyunk warehouses hold large amounts of emergency stock (i.e., relative to their respective inventory levels) and therefore have low inventory turnover. However, PGW's overall average inventory levels have decreased from $8,988,000 in 2006 to $6,959,000 in 2011 and its inventory turnover increased from 1.9 in 2006 to approximately 2.4 in 2011. PGW's inventory reduction and inventory turnover improvement was primarily achieved through the elimination of obsolete inventory and has resulted in a one time savings of approximately $2.03 million

[6] Assumes an emergency stock level of 10% of average inventory after removing the known value of spare parts

and reoccurring annual carrying cost savings of $304,000 (based upon an estimated 15% carrying costs)[7].

Staff's Follow-up Recommendation – None.

Follow-up Finding and Conclusion No. IX-9 - PGW does not separately track emergency stock inventory levels.

PGW maintains, in essence, two levels, or categories, of emergency stock items, spare parts (ES1) and emergency stock (ES2)[8]. Spare parts (ES1) are items identified by the Company to be high dollar and/or long lead time items needed to operate its two liquefied natural gas (LNG) facilities. These parts and their value are separately tracked. Emergency stock (ES2) items are identified as items critical to PGW's operations with severe repercussions if the Company would run out of them. These emergency stock (ES2) items are maintained within the inventory management system as part of normal inventory and not separately designated as emergency stock items; however, these items are physically located in a separate location in the warehouse. The Materials Management Group can identify and quantify emergency stock (ES2) items when necessary, but does not maintain this information on a routine basis.

The fact that PGW does not track the value of emergency stock (ES2) creates several problems. As discussed in Follow-up Finding and Conclusion IX-1, PGW includes a portion of their emergency stock when computing average inventory balances which skews its inventory turnover calculation (see Exhibit IX-2 and Exhibit IX-3) for comparison and trending purposes. Also, not knowing the value of the items maintained as emergency stock (ES2) can lead to not only excessive overall inventory levels, but item shortages and mismanagement of inventory in general.

A June/July 2011 Supply Chain Department survey of user departments identified possible material shortages for particular items. As a result, the Materials Management Group has taken action to reevaluate inventory min/max levels based on factors including each item's four year history and lead time. Additionally, the MMG is working on a metric to track material shortages. However, the MMG should track the value of all its emergency stock levels to accurately compute inventory turnover and other such metrics. In general, optimal emergency stock levels normally fall within 10%-20% of average annual inventory balances.

Staff's Follow-up Recommendation – Initiate efforts to routinely identify and track the value of emergency stock levels.

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[7] Average carrying costs are 12-24.5% of inventory value as reported in: Pooler, Victor H., David J. Pooler, and Samuel P. Farney. Global Purchasing and Supply Management: Fulfill the Vision-Second Edition. Norwell: Kluwer Academic Publishers, 2004.

[8] ES1 and ES2 are used to identify the two types of emergency stock and maintain a distinction when referring to a particular type of emergency stock.

Prior Recommendation – Conduct an analysis to determine the economic and operational benefits that would be gained from the consolidation of the MMD storerooms.

Prior Situation – Despite PGW's relatively small geographic service territory, in late 2007 and early 2008, the Company was operating six storeroom facilities. As a result, considerable time and effort was wasted double handling inventory. Inventory was being received from the vendor at one warehouse, stocked, and entered into the inventory management system only to be requested by another storeroom, pulled from inventory, packed, and transported to another warehouse where the receiving process started over.

Follow-up Finding and Conclusion No. IX-10 - PGW has performed a comprehensive evaluation for the consolidation of its material storerooms.

PGW recognized that its current warehouse configuration and associated processes resulted in a considerable amount of wasted effort from double handling of inventory items. As a result, warehouse consolidation was analyzed as part of the Supply Chain and Business Transformation Case drafted in October 2007, which provided among other issues, details on the benefits of consolidating the Company's warehouses, over a six year period from 2008 to 2013.

In November 2010, PGW submitted the plans for a warehouse consolidation project to the City of Philadelphia for approval. The project would consolidate all of the Company's current warehouses, meter shops, field services, fleet operations, etc. into two facilities. The main facility would be located at one of four or five possible locations in the vicinity of 9th Street and Boulevard Avenue with 70 to 75 percent of the workforce assigned to this location. A second facility would be maintained at the Company's current Porter Street (Passyunk) location to service southern Philadelphia operations (i.e., those south of center city). By consolidating its facilities, PGW projects savings of approximately $5.0 million annually. The savings would result from increased productivity, reduced inventory and inventory handling costs, reduced travel time for the field crews, and reduced operating and capital costs.

However, the City of Philadelphia has deferred approval of PGW's proposed consolidation project until the Strategic Options Analysis regarding the feasibility of selling PGW or retaining City ownership is complete. PGW's management indicated an awareness that organizations must operate as efficiently as possible and that eliminating excess space and facilities, minimizing cost, and increasing productivity whenever possible is necessary to remain competitive in today's business environment. As a result, the Company indicated plans to start the project as soon as the City of Philadelphia's approval is received, and expects completion of the project within 24 months of gaining approval.

Staff's Follow-up Recommendation – Promptly proceed with the warehouse consolidation project once approval is received from the City of Philadelphia.

Prior Recommendation – Initiate efforts to reduce the number of employees in the MMD.

Prior Situation – Schumaker & Company found the overall number of Materials Management employees at PGW was too high. Employee reductions could be accomplished by correcting some related issues such as inventory level reductions, warehouse consolidation, and upgrading the material management system's capabilities. MMD management believed a reduction of eight employees would be feasible, which was projected to result in annual savings of approximately $400,000.

Follow-up Finding and Conclusion No. IX-11 - PGW has not reduced the number of Materials Management Group (MMG) employees.

Employee reductions were to take place as other initiatives were completed such as reducing the level of inventory in MMG storerooms, consolidating warehouses, and increasing utilization of the inventory management system. Although certain initiatives have been completed by the Company, no associated MMG employee reductions have occurred. The number of MMG employees, by job classification, has remained stable since 2008 as shown in Exhibit IX-4.

Exhibit IX-4
Philadelphia Gas Works
Materials Management Group Employees
2008 - 2011

Job Classification	Total Materials Management Group Employees			
	2008	2009	2010	2011
Manager	1	1	1	1
General Supervisor	0	0	1	1
Inventory Supervisor	4	4	4	4
MMD Clerk	6	6	6	6
Office Services Clerk	3	3	3	3
Stock Handler	25	25	25	26
Repair Person	3	3	2	1
Driver	13	12	13	13
Totals	55	54	55	55

Source: Data Request MM-7

As presented in Follow-up Finding and Conclusion No. IX-8, the Company has reduced average inventory levels by approximately $2.03 million from $8,988,000 in 2006 to $6,958,811 in 2011. While inventory reduction targets have been achieved, PGW has not consolidated any of its warehouses. As discussed in Follow-up Finding and Conclusion No. IX-10, the Company completed a warehouse consolidation analysis as part of the Supply Chain and Business Transformation Case and submitted a proposal to the City of Philadelphia in 2010. However, the City of Philadelphia has deferred approval for the proposed consolidation project.

Additionally, starting in January 2012 the Company's Oracle inventory management system was being upgraded with an expected completion date of June 2012. As part of this upgrade, the Supply Chain Department will gain the use of Oracle's Order Management Module and create an interface between Oracle and PGW's Automated Information Management System (AIMS), (i.e., the mobile information management system). These changes should eliminate the manual, labor intensive, paper based activities from the requisition process, improve efficiency, and help prepare and dispatch work. Moreover, the Oracle Services Procurement Module will enhance the Procurement Group's ability to manage spending against contracts.

A Company should have only enough employees to efficiently complete the workload that the firm experiences. Any excess number of employees incurs unnecessary labor costs and reduces the overall productivity as a whole. PGW's management indicated that a reduction of eight employees through attrition is still a reasonable expectation but is uncertain of the timeframe that the reductions will be realized due to factors beyond their control; such as, pending approval of the warehouse consolidation project from the City of Philadelphia.

Staff's Follow-up Recommendation – Initiate efforts to reduce the number of Materials Management Group Employees through improved efficiencies.

Prior Recommendation – Develop formal procedures to guide and govern the day to day operations of the MMD storerooms.

Prior Situation – The MMD had procedures for the Oracle inventory processes; however, there were no formal policies and procedures to guide MMD employees on day to day activities. Comprehensive policies would have provided standardization of operations, guidance to employees, training, and to help ensure efficient operations.

Follow-up Finding and Conclusion No. IX-12 - No comprehensive written materials management function policies and procedures exist to guide the daily operations in the Supply Chain Department.

PGW has policies and procedures established to guide MMG employees when using Oracle software but have only documented a handful of miscellaneous policies and procedures pertaining to daily operating tasks. The documented daily operating tasks include the materials issue process, order processing, package shipping and handling, removal of hazardous materials, and receiving stationary.

A mid-2011 survey from user departments of the Supply Chain Department indicated multiple areas that could be improved; see Follow-up Finding and Conclusion No. IX-5. Among the problem areas identified were communication, procurement efficiency, delivery time and accuracy, and shortages. Standardized policies and procedures would help alleviate these problems as well as standardize operations across all PGW's storerooms while providing a valuable resource for training and answering operational questions. Without comprehensive operating policies and procedures to provide guidance to MMG employees on daily operations, mistakes in accuracy, consistency and efficiency will result.

In response to the integration of the Materials Management and Procurement Departments and the restructuring of the Supply Chain Department in 2010 as well as recognition for the need for a set of standardized policies and procedures, as of early 2012 PGW was working to complete a document control and training matrix. The matrix will compile all existing policies, procedures and forms, and provide updates where needed to address any existing gaps. For example, MMG is in the process of completing a policy on shelf life control that is scheduled to be covered in training starting in early 2012. Once the initial review of the Supply Chain Department is completed and all policies and procedures are documented, a review will be conducted every three years to update information and create or delete any new, or old, policies and procedures.

Staff's Follow-up Recommendation – **Develop a comprehensive policies and procedures manual to guide the daily operations of the Supply Chain Department**.

Prior Recommendation – Conduct an analysis to determine if it would be cost and operationally effective to outsource the vehicle parts procurement and inventory function.

Prior Situation – According to Schumaker & Company, outsourcing the vehicle parts procurement and inventory function would be expected to result in economic benefits. By utilizing firms that specialize in the provision of vehicle parts procurement and inventory, companies can benefit from specialized expertise and economies of scale. Schumaker & Company had seen several large firms that had gone this route and were generally pleased with the results achieved, including PECO Energy Company in the Philadelphia area.

Follow-up Finding and Conclusion No. IX-13 – PGW has explored the use of vehicle parts vendor partnerships and initiated efforts to eliminate obsolete vehicle parts inventory and redundancies in its vehicle parts inventory.

Over the past several years, PGW's Fleet Management Department has outsourced major repairs, such as engine and transmission work and starting in 2010 the towing of vehicles. Therefore, as of 2011 PGW was primarily performing preventative maintenance work on vehicles and procuring and inventorying predominantly preventative maintenance related inventory items. However, according to Company management outsourcing the procurement and inventorying parts for PGW's Fleet Department is not economically feasible at this time.

PGW's management acknowledged that outsourcing the procurement and inventorying of fleet related materials to a firm that specializes in automotive parts can potentially save organizations money and provide expertise in obtaining the correct vehicle parts. With this goal in mind PGW has explored vendor partnerships, but has determined that its current union rules limit the feasibility and benefits of outsourcing. Furthermore, as of early 2012, PGW was performing predominantly preventative maintenance on its fleet which limits the assortment of parts needed.

In order to help optimize internal operations as an alternative to outsourcing automotive part procurement and inventorying, PGW is striving to eliminate obsolete materials and redundancies in its automotive parts inventory. For example, the Fleet Department has been working with the Supply Chain Department to identify identical tires with different part numbers assigned, since they are required for different vehicles and reduce the number of tires in inventory to a more reasonable amount based on usage by all vehicles using the tire. These efforts will help lower PGW's investment in inventory, free up warehouse space, and ultimately streamline the procurement and warehousing of auto parts.

Staff's Follow-up Recommendation – Include the flexibility to partially or fully outsource the vehicle parts procurement and inventory function in the next union bargaining agreement negotiation.

X. CUSTOMER SERVICES

Background – The Stratified Management and Operations Audit of Philadelphia Gas Works (PGW or Company) conducted by the consulting firm Schumaker & Company, released by the Pennsylvania Public Utility Commission (PUC or Commission) on February 5, 2009, at D-2009-2086453, contained 17 recommendations regarding the Customer Services functional area. Schumaker & Company rated this functional area as needing significant improvement. In this chapter, eight prior recommendations and prior situations are reviewed and seven follow up findings and one recommendation is presented. However, only a total of seven prior recommendations and prior situations are presented as two prior recommendations and situations have been combined for report purposes into one follow-up finding (X-3) due to their similarity.

Prior Recommendation – Hire part time Customer Service Representatives (CSR) and implement variable staffing levels based on predicted call volume.

Prior Situation – PGW's call center service level was highly inconsistent and generally far below a conservative benchmark of 70% of calls answered within 30 seconds. In 2007, PGW's service level ranged from an average of 23% of calls answered within 30 seconds in April to 81% in December. These performance levels were closely related to call volume, with April being the highest volume month and December the lowest. Overall, from September 2007 through July 2008, PGW had averaged 53% of its calls answered within 30 seconds. It appeared that PGW's call center was staffed to meet low call volume months but was inadequately staffed to handle average and above average call volumes.

Follow-up Finding and Conclusion No. X-1 – PGW evaluated and modified its operating practices to adequately staff the call centers based on projected call volume.

In 2009, PGW hired a consultant to perform an assessment of its call center's operation. The assessment focused on workforce/contact management, performance management, quality assurance, organization structure and management, training, hiring, automation opportunities and future objectives. As a result of the assessment's recommendations, PGW made several changes to its call center operations including:

- Enhancing the Integrated Voice Response (IVR) System and billing systems to add additional functionality.

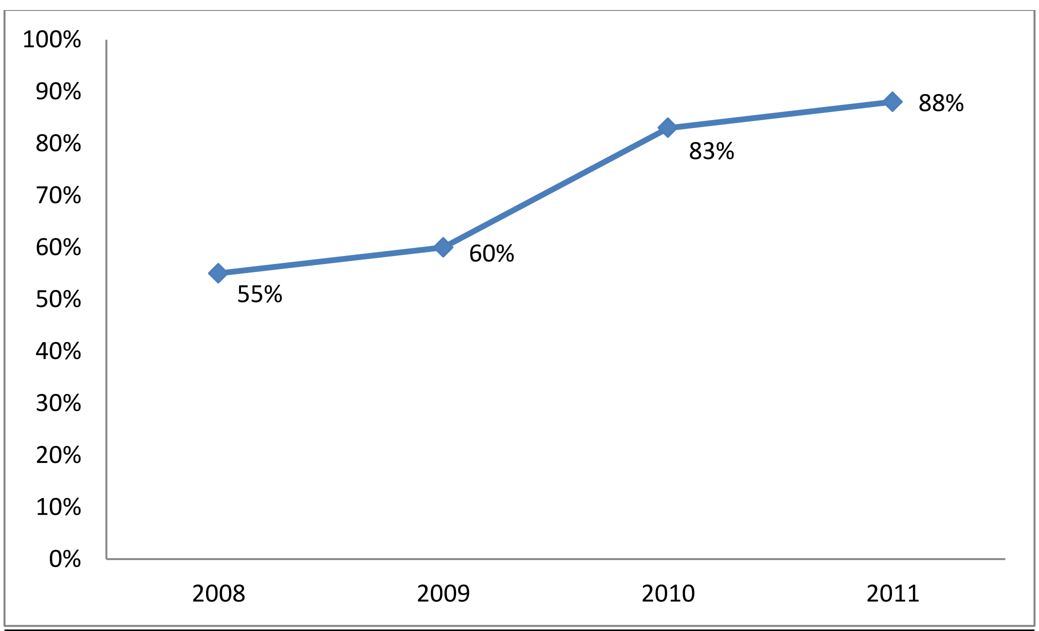
- Providing CSRs access to online training capabilities.

- Creating a new quality monitoring function that is less subjective and more consistent in evaluating CSRs during customer calls.

Since 2009 PGW has been utilizing a call management system to forecast call volumes, to the half hour, to manage its call center staffing. The software has "what if" scenarios that help PGW estimate the number of employees who can take vacations during a certain period as well as project the amount of overtime needed to cover the expected call volume. Furthermore, PGW modifies the forecasts to account for increases in calls due to weather conditions and special mailings to customers. Additionally, the IVR performs call routing based on the type of customer call (i.e., billing inquiries, etc.).

Exhibit X-1 shows that PGW has increased its level of service every year since 2008. From May 2010 through December 2011, the call center has consistently maintained an average monthly grade of service for answering calls within 30 seconds at no lower than 79%. This service improvement is a direct result of the performance standards implemented in December 2009, which were negotiated as part of a new contract for PGW's union employees. Specifically a provision of the union contract contains call center performance standards for maintaining a quality assurance score of at least 80%, reducing the amount of employee personal time to 15 minutes, and reducing the average handling time (amount of time an employee is on a call plus after call work) to 5 minutes or less. Furthermore, PGW determined that based on the Call Center's ability to meet a more than satisfactory grade of service that it was no longer necessary to incur the cost of hiring part time workers.

Exhibit X-1
Philadelphia Gas Works
Grade of Service (% of Calls Answered Within 30 Seconds)
2008 - 2011



Source: Data Request CS-1 and pgworks.com

<u>Staff's Follow-up Recommendation</u> – None.

<u>Prior Recommendation</u> – Investigate methods to improve CSR selection and retention.

<u>Prior Situation</u> – Schumaker & Company cited low starting pay rates relative to other area call centers for Customer Service Representatives as a factor for seniority being relatively low, with approximately 30%[9] of CSRs being with PGW less than two years as of December 31, 2007. This resulted in call center turnover rates which exceeded the industry average as discussed further in Follow-up Finding and Conclusion No. X-3. Another contributing factor was city residency rules that constrained PGW from hiring from a broader base of potential candidates. Additionally, PGW affords employees who make it through the probationary period significant job protection. Historically, PGW has also offered employees benefits and pay progression that exceed other local call centers.

<u>Follow-up Finding and Conclusion No. X-2</u> – PGW has developed and implemented strategies to improve the selection and retention of CSRs.

As discussed in Follow-up Finding and Conclusion No. X-1, PGW hired a consultant to perform an assessment of its call center operations in 2009. As a result of the consultant's recommendations and enhanced working relationship between the call center, Human Resources (HR) and Organizational Development (OD) Departments, PGW has revised its hiring process. PGW instituted additional screening of potential call center candidates in order to properly identify the necessary skills and attributes needed to fulfill the customer service role. Candidates are graded on their ability to enter customer information into a computer during a simulated customer call. After passing the screening tests, candidates are interviewed by call center management and are also given a role playing scenario to be judged on how they handle the situation.

In December 2010, PGW formed a morale committee with the intent of improving employee morale within the call center. In 2011, call center employees were surveyed in order to better understand the cause of low morale issues. The union supported the Company's survey and therefore, PGW received a 99% response rate. Based on the results of the survey, PGW developed and implemented action plans to improve relations between call center management, employees, and union representatives. PGW's HR and OD Departments have also introduced several health and wellness courses in order to improve employee satisfaction and morale. In addition, call center management has implemented recognition programs including recognizing employees who display exemplary performance by exceeding performance standards.

The number of CSRs that have been employed at PGW for less than 2 years has improved slightly. At the time of the Schumaker & Company audit in December 31, 2007, approximately 30% of CSRs had seniority of two years or less compared to approximately 28% as of December 31, 2011. The CSR Seniority Levels show a slight improvement in the number of CSRs retained by the Company (28% versus 30% as

[9] Schumaker & Company had data that contained additional Customer Service employees in addition to the Customer Service Representatives. Specifically the data contained at least 12 Quality Assurance employees who had been with the company over 10 years. Therefore, the data used in the initial analysis provided an understated percentage of CSRs that had been with PGW for two years or less.

reported in 2007) with less than 2 years of experience presented by Schumaker & Company. Nonetheless, based upon the Audit Staff's review, it appears that PGW has implemented strategies that have begun to improve CSR retention and should result in further improvements as these efforts are continued.

Staff's Follow-up Recommendation – None.

Prior Recommendations – Develop a method for measuring actual call center turnover rates and include CSR turnover as a key performance indicator (KPI) for the call center.

Prior Situation – PGW was not able to provide actual turnover rates for call center employees. As they conducted the management audit, Schumaker & Company was provided conflicting information as to the actual turnover rates and therefore they were unable to develop a definitive comparison to industry experience.

Follow-up Finding and Conclusion No. X-3 – PGW has developed a monthly report to measure and track call center employee turnover.

PGW's Director of Human Resources Administration is responsible for compiling a monthly Call Center Turnover Report, which is provided to the Vice President of Customer Affairs in order to better manage the Company's workforce and operations. The Call Center Turnover Report measures and compares the number of employees that left PGW (i.e., terminations, resignations, retirements and/or deaths) with the average number of call center employees. The result is a comparison, by quarter, from 2008 through the most recent month's end of turnover within the call center.

Exhibit X-2 shows that PGW's call center turnover rate has decreased from 17.4% in 2008 to 6.4% in 2011 as a result of initiatives and strategies previously discussed. A 2007 study by the International Customer Management Institute (ICMI) found that 54% of call centers had external (CSRs leaving the company) turnover rates of 20% or less. Additionally, PGW participates in the American Gas Association DataSource benchmarking survey which allows PGW to compare their performance to other utilities in the industry. The industry turnover rate in 2009 and 2010 was 18% and 19%, respectively. PGW's call center has consistently had turnover rates below the industry rate and other call centers since it began accurately tracking turnover in 2008.

Exhibit X-2
Philadelphia Gas Works
Customer Affairs Department Turnover
2008 - 2011

Year	Turnover
2008	17.4%
2009	13.9%
2010	6.4%
2011	6.4%

Source: Data Request CS-19

Staff's Follow-up Recommendation – None.

Prior Recommendation – Assess the root causes of absenteeism and address the quality of work/life issues in the call center in conjunction with the enforcement of absence policies.

Prior Situation – In 2007, PGW's call center had averaged 22.7 days of unplanned absence (i.e., anything other than vacation and holidays) per CSR, which was nearly twice the average for PGW as a whole. Schumaker & Company estimated that this level of absenteeism would translate to an 8-13% increase in additional staffing, resulting in $300,000 to $450,000 of additional costs in order to manage PGW's workload.

Follow-up Finding and Conclusion No. X-4 – PGW has conducted an analysis into the root cause of absenteeism.

In January 2009, PGW implemented a new Time and Labor Management (TLM) system. The TLM system allows the Company to classify and track attendance based upon a variety of criteria including subcategories identified in the Family Medical Leave Act (FMLA). The Customer Affairs Department monitors and enforces its Absence Pay Allowance Policy for Union Employees, (Policy # 000-7) by utilizing the TLM. Exhibit X-3 provides the average number of sick days per employee within the Customer Affairs Department. PGW believes that not all absences were accurately recorded in the previous system which would explain why there appears to be a spike in 2009. Moreover, the TLM system tracks absences by department, and as a result PGW could not provide absences specifically for CSRs or the call center. As a result, comparisons cannot accurately be made between the current average absence rate and the rate identified in the management audit for 2007. Due to PGW's history of absenteeism related problems in the call center, the Company should develop a method to separately track and trend call center absenteeism.

Exhibit X-3
Philadelphia Gas Works
Average Number of Sick Days Per Employee
Customer Affairs Department
2008-2011

Year	Average # of sick days per employee
2008	11.7
2009	16.0
2010	17.1
2011	16.8

Source: Data Request CS-21

In November 2009, PGW's HR Department conducted a root cause analysis regarding absenteeism. The analysis resulted in several observations about PGW's call center:

- The call center had a significant number of newly hired employees, as 53% of call center employees had less than 5 years of experience with PGW.
- Some employees' family commitments or home life correlated to whether an employee had a vested interest in PGW.
- Approximately 39% of call center absences are classified as FMLA, which is double the company average.

During 2010, as discussed in Follow-up Finding and Conclusion No. X-2, PGW began to address the quality of work/life issues within the call center.

Schumaker & Company had identified a potential cost savings that could be realized by PGW if absenteeism was reduced. However, PGW has not experienced a reduction in absenteeism. The average number of absences shown in Exhibit X-3 for employees in the Customer Affairs Department, have consistently exceeded the average days of absences for all PGW employees from 2008 through 2011. The average number of absences for all PGW employees has not exceeded 14 days from 2008 through 2011. On the other hand, since 2010 PGW has consistently maintained a grade of service (i.e., percentage of calls answered within 30 seconds) of greater than 80% while not increasing operational expenses.

<u>Staff's Follow-up Recommendation</u> – Develop a method to track absenteeism separately for the call center and perform periodic absenteeism root cause analyses to facilitate efforts to reduce absenteeism levels.

<u>Prior Recommendation</u> – Provide privacy for Low Income Home Energy Assistance Program (LIHEAP) applicants.

Prior Situation – In each district office Schumaker & Company visited, LIHEAP applications were taken by temporary (agency) employees at crowded small tables while other customer business was generally conducted in private cubicles. During this process, the customers discussed sensitive personal data (including social security numbers) while other applicants were in close proximity prohibiting any level of privacy to discuss not only confidential information but also making applicants (and their economic status) clearly visible to anyone who entered the office.

Follow-up Finding and Conclusion No. X-5 – PGW has modified the areas where customers receive LIHEAP assistance.

Three of PGW's six district offices were visited during the Audit Staff's field work. Each of the district offices had LIHEAP waiting areas that were separate from the main waiting area for other customer inquiries. According to PGW, the waiting areas for all district offices were separated during December 2008. Therefore, the LIHEAP waiting areas are no longer the main focus as someone enters the district offices.

PGW has budgeted renovations to take place at its North District Office during March 2012. The renovations will update the outdated décor of the North District Office and feature a reconfigured layout. In its five year capital budget, PGW had budgeted additional renovations to its five other district offices. While specific renovation plans have not been finalized within the capital budget, PGW has stated that it intends to complete significant renovations at the two other district offices that it owns and PGW plans to complete some basic cosmetic renovations at the three district offices that it leases. However, higher priority projects have been completed in lieu of district office renovations during periods of budget tightening. Additionally, the Company may delay its renovations due to ongoing efforts to explore the possibility that PGW could be sold. See Chapter IV - Corporate Governance, Follow-up Finding and Conclusion No. IV-4 for more information about the potential sale of PGW.

Staff's Follow-up Recommendation – None.

Prior Recommendation – Demonstrate, periodically, to the PUC that the Parts and Labor Plan (PLP) is self supporting.

Prior Situation – PGW offers a PLP (a service repair protection plan that covers central heating, water heaters and electric air conditioning equipment) to its customers. The number of PGW customers that were participating in the program had been decreasing from a high of 160,000 customers in the late 1970s to 65,000 customers in 2007. In that same timeframe, the number of service calls had decreased from 65,000 to 20,000. PGW had reduced the staffing levels associated with the PLP accordingly.

Follow-up Finding and Conclusion No. X-6 – PGW conducts a cost/benefit analysis of its Parts and Labor Program annually.

Annually, PGW performs a cost/benefit analysis of its PLP. In the most recent analysis comparing fiscal year 2010 to fiscal year 2009, PGW experienced a significant increase in net profit generated by the PLP. According to PGW, in fiscal year 2010 the Company began to use more accurate cost allocations to base the expenses of the program on current actual expenses rather than allocations based on historical costs. The use of more accurate allocations of costs between the utility and the PLP helps to ensure that expenses are supported by the customers who participate in the program. As a result of improved cost allocations, the PLP net profit as a percentage of revenue in fiscal year 2010 was 21.4% compared to 1.4% in fiscal year 2009. Additionally, the more accurate allocation of costs to the PLP will be reflected in PGW's future rate case rate design calculations.

<u>Staff's Follow-up Recommendation</u> – None.

<u>Prior Recommendation</u> – Reevaluate the use of the soft off program at PGW.

<u>Prior Situation</u> – Traditionally, when a customer terminated service, a utility would dispatch a technician to the premise to read and physically turn off the meter. This procedure is referred to as a hard shut off. Subsequently to reestablish service for another customer, a technician would be dispatched to physically "turn on" service.

The use of Automated Meter Reading devices facilitates a less costly approach referred to as a soft off program, as it avoids dispatching a technician to physically turn the meter off and then back on. In a soft off program, a technician is not dispatched to "turn off' the meter; instead a final meter read is acquired for the departing customer and then the meter is monitored for unauthorized usage until service is established for a new customer. Only if unauthorized usage is detected, is a technician dispatched to "turn off" the meter. Therefore, the utility can realize efficiencies by avoiding the cost of two technician dispatches as long as the amount of gas consumed (authorized or unauthorized) is not excessive.

However, Schumaker & Company found that PGW was incurring between $1 million and $2 million a year in extra costs associated with its soft off program. The soft off program had been managed with primarily manual processes to monitor usage and PGW was not performing a sufficient number of hard shut offs to avoid excessive lost gas costs resulting from unauthorized usage, leakage within the dwelling, etc..

<u>Follow-up Finding and Conclusion No. X-7</u> – PGW has automated the processes behind its soft off program.

In April 2009, as part of PGW's Business Transformation initiative, the Company automated approximately 98% of the processes behind its soft off program. Additionally, PGW established criteria to determine whether to physically shut off an account or put the account in soft off status. PGW's soft off program utilizes usage thresholds in order to manage the costs associated with physical turn-offs. For customer accounts put in soft off status, the account is transferred into PGW's name and monitored for excess usage. PGW's soft off program monitors accounts in soft off status and based upon an accumulated usage threshold level determines whether to physically shut off the meter. PGW has the ability to change the parameters of the soft off program to define specific monitoring and notification time periods and adjust the usage thresholds with respect to daily work volume.

PGW identified that some accounts dating back as far as 2004 had not reached the usage thresholds which trigger the account to be shut off. Nonetheless, these accounts are incurring lost gas costs for PGW. As a result, PGW plans to add a time threshold to its automated system by April 1, 2012, in order to have the system monitor accounts that have been in soft off status for extended periods of time.

As part of its business plan for automating the soft off program, PGW established a goal of achieving a 25% benefit over having the program versus not having the program. PGW has consistently exceeded the 25% goal since the beginning of fiscal year 2010 (i.e., since September 2009). PGW has calculated realized annual savings associated with the upgraded soft off program of approximately $1.75 million. See Follow-up Finding and Conclusion No. IV-4 for additional information regarding PGW's realized savings from the Business Transformation initiative.

<u>Staff's Follow-up Recommendation</u> – None.

XI. FLEET MANAGEMENT

<u>Background</u> – The Stratified Management and Operations Audit of Philadelphia Gas Works (PGW or Company), conducted by the consulting firm Schumaker & Company, released by the Pennsylvania Public Utility Commission (PUC or Commission) on February 5, 2009 at D-2009-2086453, contained five recommendations within the Transportation and Fleet Management section of the Support Services Chapter. Schumaker & Company rated this functional area as needing moderate improvement. In this section, three prior recommendations and prior situations are reviewed and three follow-up findings and two recommendations are presented.

<u>Prior Recommendation</u> – Develop a specific human resources plan to ensure that the correct number of experienced replacements will be available to take over for the mechanics who will be retiring in the next few years.

<u>Prior Situation</u> –PGW's mechanic workforce was aging and many would be approaching retirement age in the next few years. The average age of PGW's 26 mechanics was 47 years old with 14 of those 26 over age 50. It was estimated by PGW that 15%-54% of the mechanics could retire between 2008 and 2012.

PGW's turnover among mechanics had historically been low which resulted in a large number of experienced mechanics approaching retirement age within a short period of time. These experienced mechanics gained their technical expertise over many years of training and work experience, which could not be quickly replaced. Consequently, adequate time was needed to hire and train replacements in order to seamlessly transition workload as experienced mechanics retire.

<u>Follow-up Finding and Conclusion No. XI-1</u> - PGW has taken the steps necessary to ensure experienced mechanics are available and adequately trained to fill positions as retirements occur.

Over the next four years (i.e., 2012 to 2015), 12 of PGW's current 26 mechanics (or 46%) are anticipated to retire and be replaced. Exhibit XI-1 shows the anticipated number of mechanic retirements and hires for 2012 through 2015.

Exhibit XI-1
Philadelphia Gas Works
Anticipated Mechanic Retirements and New Hires
2012-2015

Employment Action	2012	2013	2014	2015	4 Year Total
Anticipated Retirements	2	3	4	3	12
New Hires	3	3	4	2	12

Source: Data Request MM-7

PGW's Fleet Management Department (FMD) has been working with the Organizational Development Department to help ensure experienced mechanics are available, trained, and ready to step into the mechanic positions as retirements occur. In the past, the FMD would wait until an employee retired before starting the hiring process. Therefore, it would take up to six months after a retirement before an individual was hired to fill the vacated position. In contrast, the FMD now attempts to hire new mechanics six months to a year ahead of pending retirements. This avoids the period of lost capacity following a retirement which previously occurred, by providing time to train the new employee and familiarize them with Company culture, policies, and procedures before they must fully step into the retiree's position.

PGW has also worked to develop a partnership with the Community College of Philadelphia (CCP) to recruit trained mechanics upon their graduation. Approximately 25% of PGW's newly hired mechanics were graduates of CCP during the past three years. Additionally, the Company provides periodic in-house classroom and hands-on training to its mechanics to ensure they have the knowledge and support to succeed. In addition, PGW has found that the current, prolonged economic downturn has resulted in an increase of experienced mechanics in the job market. As car dealerships, auto repair garages, trucking companies and other businesses were forced to close due to economic hardship, a large number of experienced mechanics were released into the job market making it easier to attract experienced talent. Also, as a result of the economic recession, many employees are delaying retirement until at least reaching full retirement age or in some cases longer.

Moreover, PGW's 2008 attrition plan indicated 54% of mechanics could retire within five years, but approximately half of those mechanics have delayed retirement. Therefore, retirements are not occurring as quickly as PGW had expected.

Staff's Follow-up Recommendation – None.

Prior Recommendation – Use information collected from outside contractors to make decisions on which Fleet Operation activities can best be performed by outside contractors and what areas of Fleet Operations need to be improved to be comparable with outside contractors.

Prior Situation – Schumaker & Company had experience working with some utilities that had begun outsourcing fleet maintenance in whole or in part. Those services outsourced on a partial basis included parts supply and inventory, and passenger car repairs, while major repair work was being retained in house. Since PGW was experiencing natural workforce attrition through retirements, Schumaker & Company felt that it was timely for PGW to use its outsourcing of work as an opportunity to evaluate the efficiency and effectiveness of its in-house fleet operations. Schumaker & Company recommended that as PGW issued requests for proposals (RFP) to outsource a portion of its vehicle maintenance and repair work that it compile information on contractor performance. This information in turn could be used to provide the Fleet Management Department with data useful in determining the best way to perform various Fleet

Operation activities and make decisions on potential additional outsourcing as natural attrition was occurring with in-house staff.

<u>Follow-up Finding and Conclusion No. XI-2</u> – PGW has not gathered information in sufficient detail from outside contractors to gauge what areas of Fleet Operations need to be improved or could more cost effectively be performed by outside contractors.

The Fleet Management Department has been outsourcing engine and transmission work since 2000. Moreover, PGW evaluated the cost effectiveness of its in-house towing services and subsequently outsourced the towing function in 2010. The analysis that led to the decision to outsource towing services showed a potential annual cost savings of approximately $387,000, in avoided costs and increased production. However, PGW is still performing all vehicle maintenance work in-house and has not gathered sufficient information to gauge what areas of Fleet Operations should be improved or could be more cost effectively performed by outside contractors.

Most recently in 2007, the Fleet Management Department issued a request for proposals (RFP) to obtain contractor proposals to perform preventative maintenance and minor repair work, parts inventory, acquisition and management, the scheduling of work, maintaining vehicle records and weekly and monthly performance reporting. PGW then intended to use the data to evaluate the possibility of outsourcing certain backlogged preventative maintenance and minor repair work to gain insight into the cost and operational effectiveness of its Fleet Operations. However, since 2007 no further attempt has been made to evaluate Fleet Operations activities to determine where internal improvements should be made to become comparable to outside contractors or when it would be beneficial to PGW to outsource, certain maintenance and repair functions. However, Company management did indicate a belief that if an RFP was issued in late 2011 or during 2012, PGW would receive competitive responses due to the slow economy and current service sector environment.

In summary, the Fleet Management Department has not further evaluated its internal service costs or performance in comparison to those of outside contractors, other than towing services, and would likely benefit from doing so. Organizations should periodically evaluate internal capabilities and costs to those of outside contractors to identify areas that need to be improved to be cost and operationally efficient. This empowers the organization to gauge its operational effectiveness enabling it to maximize its resources, minimize cost, and optimize efficiencies.

<u>Staff's Follow-up Recommendation</u> – **Evaluate internal fleet service costs in comparison to outside contractor services prior to replacing mechanics as retirements occur.**

<u>Prior Recommendation</u> – Initiate a concerted effort to automate the production of the monthly preventative maintenance (PM) schedule, thereby resulting in manpower time savings.

<u>Prior Situation</u> – Within Fleet Operations a designated employee, i.e., the Work Planning Administrator, was spending over half of their time on the development of the monthly PM schedule and the remaining half reviewing the prior months PM schedule for vehicles that did not have the required work performed. Based on the capabilities of the fleet maintenance system, the consultants found that the monthly PM schedule could have been automated. Schumaker & Company estimated that automation of the PM scheduling could result in annual savings of up to $30,000 in employee time that could be spent on other activities.

<u>Follow-up Finding and Conclusion No. XI-3</u> - The Preventative Maintenance Program is not yet fully automated.

The Forecaster Module (Module) is a work forecasting module within PGW's fleet management software which has been used to schedule PM work since 2010. The Fleet Management Department schedules one-fourth of the Company's fleet for service each month with a goal of completing the work on 90% of those vehicles. In 2010 and 2011 the Fleet Management Department completed, respectively, 73% and 82% of all scheduled work. However, the Module has various scheduling issues, and is being used in a developmental capacity until all the problems are resolved. In some instances new vehicles are excluded from the forecasting process due to incomplete or incorrect data resulting from input constraints or older units earmarked for disposal are not removed in time to be excluded from the forecasting/scheduling process. Furthermore, the Module cannot anticipate work that would be scheduled in two consecutive months (i.e., an oil change in the current month and a state inspection next month). Therefore the Forecaster results must be carefully reviewed manually to identify these instances in order to reduce vehicle downtime.

The Work Planning Administrator's review effort consumes approximately 50% of their time. With today's technical capabilities, the Fleet Management Departments Forecaster Module should be producing a preventative maintenance schedule that is reliable, accurate, and does not require a significant amount of labor time for review and compliance. The Fleet Department is working to fully develop the Module and address its problems. The vendor's website is periodically checked for updates for the Module and the fleet management software is budgeted for updating in 2012, which is expected to improve the forecasting application.

By fully automating the monthly PM schedule the Fleet Management Department believes only 32% of the Work Planning Administrator's time will be spent working with the schedule. Once the Module is fully implemented PGW could avoid up to $40,800[10] annually in unneeded work and allow time and effort to be spent on other tasks that benefit the Fleet Management Department.

<u>Staff's Follow-up Recommendation</u> – Complete the automation of the monthly preventative maintenance schedule.

[10] Assumes an employee loaded cost of $60,000 per year.

XII. DIVERSITY

<u>Background</u> – The Stratified Management and Operations Audit of Philadelphia Gas Works (PGW or Company), conducted by the consulting firm Schumaker & Company, which was released by the Pennsylvania Public Utility Commission (PUC or Commission) on February 5, 2009 at D-2009-2086453, contained three recommendations within the Diversity and EEO Chapter. Schumaker & Company rated this functional area as needing moderate improvement. In this section, the three prior recommendations and prior situations are reviewed and three follow-up findings and two recommendations are presented.

<u>Prior Recommendation</u> – Expand PGW's diversity program so as to include increased focus on leveraging diversity as a business advantage.

<u>Prior Situation</u> – Although Schumaker & Company stated that given its circumstances PGW had done an excellent job of increasing minority and women participation in the workforce and assuring a workplace free from discriminatory practices, the consultant found that the Company's focus was compliance based rather than oriented to leveraging diversity as a business advantage. Consequently, Schumaker & Company concluded PGW had not fully explored the potential of adopting a comprehensive diversity initiative that would include employee engagement, leadership development, and foster inclusion.

<u>Follow-up Finding and Conclusion No. XII-1</u> – PGW has continued to introduce diversity initiatives that encourage and engage employees; however, it has not added initiative's focused on leveraging diversity as a business advantage.

PGW continues to invest in initiatives that promote diversity within the organization. PGW initiated two enterprise wide programs (i.e., Speaker Bureau and Ignited Towards Success) intended to promote diversity within the Company. In the later part of 2008, a Speakers' Bureau was initiated to provide education and dialogue on a variety of topics including diversity. PGW has had several speakers from various organizations discuss topics to its employees including diversity related to career development, community awareness and technical proficiency as part of its overall career development program. In 2009, PGW implemented Ignited Towards Success, a program established as a result of a career development program designed to promote career advancement for women. This program focuses on career development, mentoring, and community outreach projects and is open to all employees interested in advancing their careers.

To expand PGW's commitment to encourage career advancement, employees can participate in a two year Leadership Development program offered to any employee that meets the criteria. The Leadership Development program initially began in 2005 and was intended to be a one-time program. However, subsequent to the management audit, PGW reinitiated the Leadership Development program in 2009 and it has continued as an ongoing program into 2012. PGW's Leadership Development program identifies and trains potential future leaders and helps to expand the talent pool for succession planning purposes. More specifically, as a result of the first year of the program, two minority females were promoted to the vice president level in August 2007. The second year of the program also had successful results which led to one minority female's promotion to director in November 2011, and one minority female's promotion to analyst in March 2011.

Each of the previously mentioned diversity programs strengthens PGW's commitment to promote an inclusive workplace. However, the initiatives are consistent with Equal Employment Opportunity and Affirmative Action activities which are not focused on leveraging diversity as a business strategy. To leverage its diversity efforts as a business advantage, as recommended by Schumaker & Company, PGW needs to connect its diversity activities as a comprehensive strategy with a clear relationship to improving overall organizational performance (i.e., being more attractive to potential skilled/educated employees, improved customer service, improved reliability, etc.). Intuitively PGW should be realizing the benefits of ongoing diversity programs; however, the Company has not identified and is not yet monitoring their impact on its business performance.

Staff's Follow-up Recommendation – Identify and measure the results of ongoing diversity programs and connect them in a comprehensive strategy to leverage diversity as a business advantage designed to enhance PGW's overall performance.

Prior Recommendation – Begin filing comprehensive diversity reports to the PUC annually.

Prior Situation – PGW had filed only one diversity report (i.e., 1999 report in July 2000) with the PUC since coming under the Commission's oversight in 2000. Schumaker & Company determined that the Organizational Development Vice-President was unaware of the filing requirements initiated by the PUC. However, as demonstrated by its July 2000 filing of the 1999 diversity data, PGW had been previously informed about the Commission's efforts to encourage and monitor diversity improvement and the related annual filings.

Follow-up Finding and Conclusion No. XII-2 – PGW files an annual diversity report with the PUC.

PGW has been filing annual diversity status reports to the Commission that comply with the most recent PUC filing guidelines, since 2010. PGW's most recently filed diversity report, submitted in February 2011 to report 2010 data, contains the workforce composition data and four years of historical data (i.e., 2006 through 2009). The procurement section of PGW's 2011 report includes the procurement spend for 2010 by category of spend (i.e., Minority, Women, and Persons with a Disability). Additionally, PGW provides narratives addressing areas covered in the PUC Diversity Initiatives and internal and external efforts aimed at increasing diversity among vendors.

<u>Staff's Follow-up Recommendation</u> – None.

<u>Prior Recommendation</u> – Explore the use of spend targets in the Procurement Department's performance objectives.

<u>Prior Situation</u> – PGW's Procurement Department was not being held sufficiently accountable for increasing actual spend dollars with diverse suppliers. More specifically, PGW had not established specific spend targets for the Procurement Organization, its Director, or its buyers as a means to increase diversity spend. In addition, Disadvantage Business Enterprise (DBE) participation goals, which are comprised of Minority, Women, and Disabled Business Enterprises (MWDBE), were set by percentage of aggregate spend companywide rather than spend targets for the Procurement group or its employees. Furthermore, no progress toward the unofficial DBE participation goal had been historically part of the evaluation for this group or its employees.

<u>Follow-up Finding and Conclusion No. XII-3</u> – PGW continues to set DBE participation goals by percentage of aggregate spend companywide rather than setting specific spend targets for the Procurement Department's Director or its buyers.

PGW continues to set its DBE participation goals by percentage of aggregate companywide spend, as described in the prior situation, rather than individual spend targets as suggested by Schumaker & Company. As of early 2012, PGW had not explored the advantages and/or disadvantages of setting specific spend targets as part of the performance objectives for the Department, Director, or the individual buyers within the Procurement organization. However, PGW continues to monitor minority purchasing activity by department and track minority participation to identify new opportunities in hopes of meeting the companywide DBE participation goal.

Schumaker & Company recommended that PGW should be striving to achieve the City's spend goal of 20%. However, PGW does not believe that the City's spend goal is realistic nor is it based on the results that PGW could actually achieve. Formerly, the DBE participation goals were based on 2008's actual spend percentage of 16.2% for 2009 and 2010, respectively. In an effort to set a realistic DBE participation goal and increase the DBE vendor pool PGW has begun to evaluate each department's total spend dollars to track the percentage of DBE spend across the organization. The Procurement Department's evaluations increased collaboration with client departments which provided the organization with a better understanding of their needs and enabling them to take a more realistic approach in setting DBE participation goals. As a result the DBE participation goal for 2011 was increased to 17.0% and the early identification of potential DBE suppliers helped increase the vendor pool.

Although it has not established spend targets at the Procurement Department level, PGW has taken the initial steps to increase DBE participation by increasing the number of DBE vendors in the vendor pool. The buying staff uses the following resource and references when searching for vendors:

- Office of Economic Opportunity on-line registry,
- Minority Supplier Development Council of PA-NJ-DE directory,
- On-line vendor searches by commodity or construction discipline,
- Yellow Pages or other business directory, and
- Contact with peers or colleagues at other companies using specific products and services.

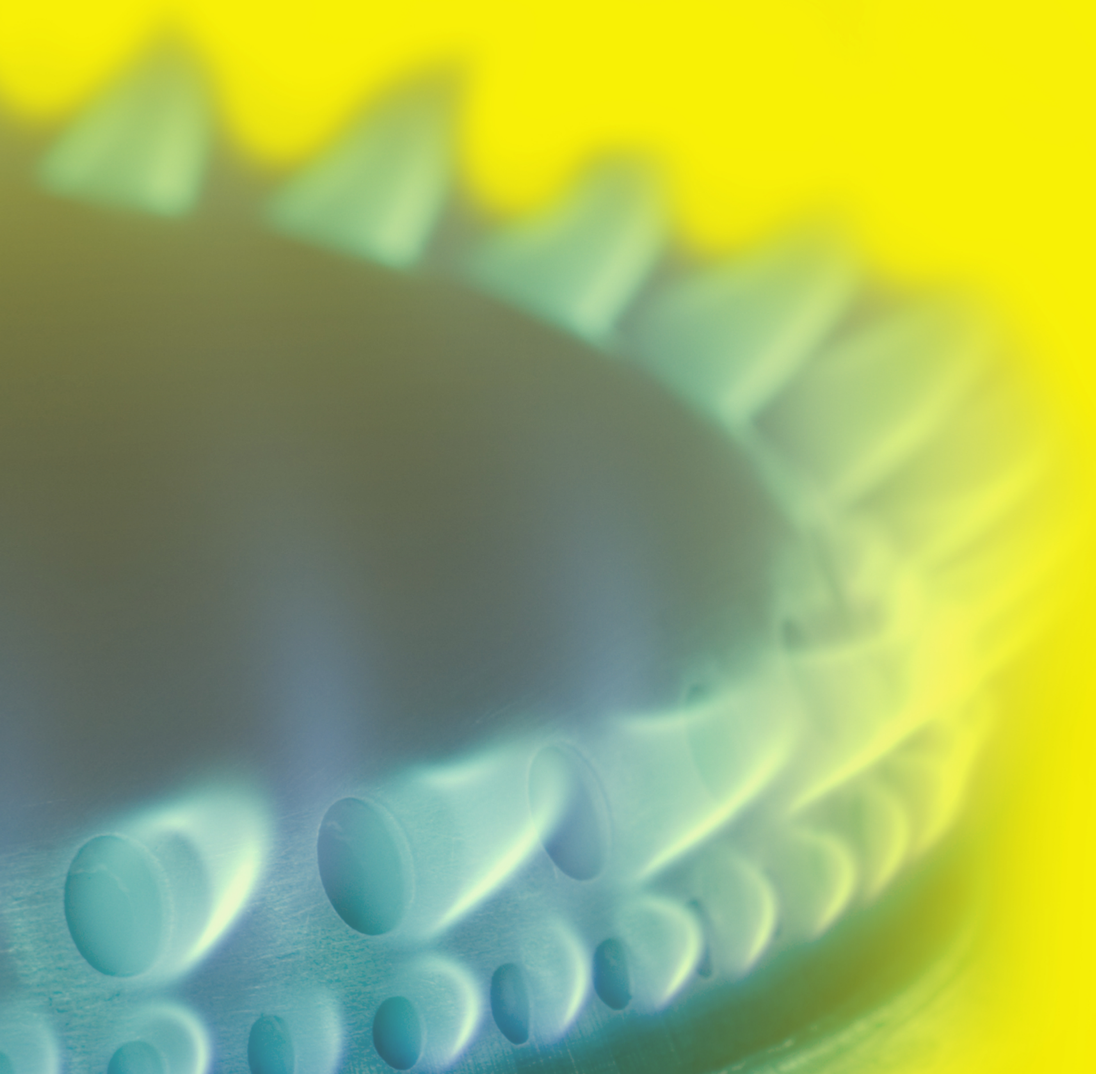
Increasing the number of DBE vendors enables PGW to create a vendor pool that has sufficient DBE representation; however, the Company needs to formulate a method to officially track progress towards DBE goals to ensure that proper focus is placed on increasing diversity spend.

<u>Staff's Follow-up Recommendation</u> – Establish and track progress towards the Procurement Department DBE participation goals on a quarterly basis.

XIII. 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 Philadelphia Gas Works.

This audit was conducted by Nathan Paul, Michael Palewicz, Krystle Daugherty, Katrina Johnson, and Deron Henry of the Management Audit Staff of the PUC's Bureau of Audits.



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