

**May 1, 2023**

**PROGRESS REPORT**

*Prepared by*

**Aqua Pennsylvania, Inc.**  
D-2020-3018771

**Peoples Natural Gas Co. LLC**  
D-2020-3018773

**Peoples Gas Company LLC**  
D-2020-3018774

**Submitted in Response to Recommendations  
Contained in the Audit Prepared By  
The Pennsylvania Public Utility Commission  
Bureau of Audits  
Issued April 2021**

## Introduction

Aqua Pennsylvania and Peoples Natural Gas (herein referred to as “Aqua PA” or “Peoples” or the “Company”) is pleased to submit this Progress Report for the review of the Pennsylvania Public Utility Commission. This Progress Report details the Company’s continued commitment to evaluate the recommendations contained in the Focused Management and Operations Audit D-2020-3018771 and implement the actions needed to not only respond to the recommendations of the Audit Team, but also bring benefits to Aqua PA and Peoples’ customers.

Of the 47 recommendations contained in the Audit Report, the Company accepted 20 of them completely, with 8 accepted in part and one rejection.

The Commission’s Audit Team identified important areas where enhancements may be made to improve the Aqua PA’s and Peoples’ operations, and the Companies are confident that the results of this effort will demonstrate Aqua PA’s and Peoples’ commitment to not only continued service and operational improvements, but to customers as well.

No.	Recommendation	Response	Audit Report Reference
1	Periodically review spans of control for management positions, document justification for supervisory position ratios with narrow or wide spans of control and adjust reporting relationships as appropriate.	Accepted	III-1
2	Establish a single repository for all policies and procedures across the Essential Utilities organization and establish a coordinated procedures review process.	Accepted	III-2
3	Reduce or eliminate manual processes within the payroll function.	Accepted	III-3
4	Periodically seek competitive bids for external audit services.	Accepted	IV-1
5	Organize the Internal Audit function to report administratively to the CEO, another non-financial senior officer, or directly to the Board of Directors.	Rejected	IV-2
6	Establish a foundational understanding of internal audit needs as a result of the Peoples Companies’ acquisition, then resource and staff accordingly.	Accepted	IV-3
7	Conduct a review of completed internal audits to ensure previous recommendations are being properly implemented at the Peoples Companies.	Accepted	IV-4
8	Improve internal controls and other practices related to affiliate transactions and cost allocation to ensure the	Accepted	V-1

No.	Recommendation	Response	Audit Report Reference
	company is following best practices and Commission guidelines. Further, the Peoples Companies should consult with the PUC's Bureau of Technical Utility Services to perform a thorough review of the current AIAs on file to determine if changes to the AIAs are needed and/or if new AIAs need to be filed to ensure compliance with Title 66 Chapter 21.		
9	Document all lease agreements between Aqua PA and its affiliates and submit them to the Commission for approval.	Accepted, in part	V-2
10	Implement a policy or procedure that requires the approval of Peoples Companies employees' timesheets similar to what exists for Aqua Services employees.	Accepted	V-3
11	Expand Essential's corporate charges allocation manual to include all transactions between affiliates.	Accepted	V-4
12	Conduct periodic market studies to confirm that goods and services provided by affiliates to the utilities are at the lower of cost or market, and goods and services provided by the utilities to affiliates are at the higher of cost or market.	Accepted	V-5
13	Perform a cost/benefit analysis to determine the feasibility of implementing an Essential Utilities money pool.	Accepted, in part	VI-1
14	Reduce or eliminate manual processes within the accounts payable function at Aqua PA.	Accepted	VI-2
15	Develop and implement capital and operations and maintenance (O&M) budget manuals/policies that include requirements for detailed written explanations of budget variances in excess of 10% for the Peoples Companies.	Accepted	VI-3
16	Develop and implement new accounting/finance policies and procedures at the Peoples Companies where appropriate and ensure the policies have all the key elements, including accountability and a regular review schedule to remain timely.	Accepted	VI-4
17	Update Aqua PA's dividend policy.	Accepted	VI-5
18	Implement a full-scale valve inspection and exercise program designed to identify what valves have not been operated or inspected in the last ten years.	Accepted, in part	VII-1
19	Update all drought contingency plans annually.	Accepted, in part	VII-2
20	Implement measures to reduce company-at-fault hits.	Accepted	VII-3
21	Increase testing and replacement of meters to improve accuracy rates.	Accepted, in part	VII-4
22	Focus efforts on reducing NRW at the Roaring Creek system.	Accepted	VII-5

No.	Recommendation	Response	Audit Report Reference
23	Expedite bare steel replacement efforts in the companies' distribution systems, and conduct ongoing staffing analyses to support any decision-making to fully staff, train, and monitor the workforce needs for all of the engineering, construction, and field operations positions and support positions needed to maintain future accelerated main replacement rates.	Accepted	VIII-1
24	Effectively modify, track, and enforce the damage prevention program and initiate preventative solutions to minimize second- and third-party damages in significant construction areas.	Accepted	VIII-2
25	Establish a standard frequency for AED inspections across Aqua PA and require inspections to be tracked for all AEDs.	Accepted, in part	IX-1
26	Establish a unified Emergency Response Plan for Aqua PA and ensure that localized conditions are captured for individual facilities.	Accepted	IX-2
27	Establish a unified control room security standard for Aqua PA, and upgrade existing facilities to adhere to it.	Accepted	IX-3
28	Establish a tiered physical security standard for Aqua PA based on criticality of company facilities.	Accepted, in part	IX-4
29	Correct minor deficiencies in physical security and safety at Aqua PA.	Accepted	IX-5
30	Designate responsible parties, review existing security protocols and measures, and address deficiencies with the physical security needs of IT components at Aqua PA and Essential Utilities.	Accepted	IX-6
31	Perform a physical security drill and/or tabletop exercise annually at Aqua PA.	Accepted	IX-7
32	Supply rescue hooks at all locations with open topped aerated basins and tanks deep enough to submerge employees at Aqua PA.	Accepted	IX-8
33	Fully develop and standardize all policies and procedures at Aqua PA.	Accepted	X-1
34	Incorporate inventory accuracy into key performance indicators at the PNG Companies and improve accuracy in all storerooms.	Accepted	X-2
35	Continue outreach efforts to engage payment troubled customers, leverage low-income resources, grants, and programs to mitigate the overall level of unpaid customer balances, and accelerate first contact with customers who miss a payment.	Accepted	XI-1
36	Document instances of theft of service, meter tampering, unauthorized tie-ins, etc. and formalize periodic refresher	Accepted	XI-2

No.	Recommendation	Response	Audit Report Reference
	training to ensure new and existing staff are kept apprised of recent cases, investigation outcomes, and safety precautions for Aqua PA.		
37	Improve the functionality and workflow progression provided by Aqua Services' customer information system.	Accepted	XI-3
38	Benchmark with similar utilities to set separate net collection goals for primary and secondary collection agencies at the Peoples Companies and measure each collection agency to the respective collection goal.	Accepted	XI-4
39	Establish goals to achieve for customer satisfaction performance at the Peoples Companies and complete an analysis at the end of 2021 to evaluate the effectiveness of the IVR redesign, including Chat Bot, in improving customer satisfaction metrics.	Accepted	XI-5
40	Perform an analysis of source data being gathered for arrearage level reports and remove any adjustments or inactive accounts that would adversely affect the integrity of arrearage data for the Peoples Companies.	Accepted	XI-6
41	Perform a periodic vehicle lease vs. buy analysis at Aqua Pennsylvania and the Peoples Companies, to ensure Pennsylvania operations is utilizing the least cost option for acquiring vehicles and equipment.	Accepted	XIII-1
42	Implement Dossier as PNG Companies' fleet management system.	Accepted	XIII-2
43	Establish an internal OSHA recordable rate goal for the Peoples Companies based upon industry performance and align safety programs to achieve the OSHA goal(s).	Accepted, in part	XIV-1
44	Measure employee engagement on a regular basis for the Peoples Companies in order to trend employee enthusiasm and motivation and reveal opportunities for improvement.	Accepted	XIV-2
45	Implement a safety management system at the Peoples Companies.	Accepted	XIV-3
46	Expedite the succession planning process, alongside with Essential Utilities, to ensure the Peoples Companies develop and recruit key positions.	Accepted	XIV-4
47	Update all job descriptions for the Peoples Companies.	Accepted	XIV-5

**Recommendation Number:** Chapter III – No. 1

**Recommendation:** Periodically review spans of control for management positions, document justification for supervisory position ratios with narrow or wide spans of control and adjust reporting relationships as appropriate.

**Recommendation Status:** **Accepted.**

**Current Action Plans:** Human Resources will conduct a periodic span of control analysis. A more formal analysis with written documentation will be done at least every three years with more informal reviews done throughout the year. Human Resources is purchasing organizational design and benchmarking data at the end of Q2 2021 which will support the ability to address this recommendation.

**Date to be Implemented:** Ongoing annually.

**Progress Report:** In Q3 2022, Aqua completed the review of organizational structures and span of control through organizational review sessions with leadership for half of the organization. The remaining half of the organization review will be complete in Q3 2023.

**Person(s) Responsible for Implementation:** Chris Kelly  
SVP & Chief Human Resources Officer  
Essential Utilities

Michelle Zappa  
Sr. Director, Human Resources  
Essential Utilities

**Recommendation Number:** Chapter III – No. 2

**Recommendation:** Establish a single repository for all policies and procedures across the Essential Utilities organization and establish a coordinated procedures review process.

**Recommendation Status:** **Accepted.**

**Current Action Plans:** The Company agrees that a single repository for policies is beneficial. Initially, a list of all policies and procedures will be created and maintained on both the Aqua PA and the Peoples Companies intranets. This initial list will be created by Q4 2021. This list will be reviewed and updated on the intranet in Q4 of each year.

**Date to be Implemented:** Q4 2021.

**Progress Report:** Policies and procedures were added to Aqua and Peoples intranet in Q1 2023. When the new Essential intranet is launched, it will be the common location for all company policies.

**Person(s) Responsible for Implementation:** Sue Haindl  
SVP & Chief Administrative Officer  
Essential Utilities

**Recommendation Number:** Chapter III – No. 3

**Recommendation:** Reduce or eliminate manual processes within the payroll function.

**Recommendation Status:** Accepted.

**Current Action Plans:** Essential is implementing Workforce timekeeping software, already used by the Peoples Companies, to eliminate manual timesheets. This new web-based software will automate pay rules and the employee time entry and approval process. A training implementation plan has been created to support this initiative. In addition, Aqua payroll will be moving to the ADP platform eliminating manual processes within the payroll function. Both of these changes will reduce the manual processes and improve overall efficiencies within the payroll function.

**Date to be Implemented:** Phase 1 – April 2021.  
Phase 2 – January 2022.

**Progress Report:** Completed.

**Person(s) Responsible for Implementation:** Chris Kelly  
SVP & Chief Human Resources Officer  
Essential Utilities

Kelly Lawler  
HRIS Manager  
Essential Utilities

**Recommendation Number:** Chapter IV – No. 1

**Recommendation:** Periodically seek competitive bids for external audit services.

**Recommendation Status:** **Accepted.**

**Current Action Plans:** The Company will evaluate the optimal time to conduct a competitive RFP for external audit services, considering the reporting and audit calendar, the SIP project and its go-live date, and integration activities.

**Date to be Implemented:** Q4 2021 – Determine optimal timing for an audit RFP.

2022 – Conduct RFP and either select/onboard new auditor or confirm that pricing and service levels of incumbent are appropriate and in the best interest of customers and other stakeholders.

**Progress Report:** Completed. The Company performed an RFP for external audit services, and the decision was made to remain with the incumbents.

**Person(s) Responsible for Implementation:** Dan Schuller  
EVP & CFO  
Essential Utilities

Bob Rubin  
SVP, Controller & Chief Accounting Officer  
Essential Utilities

**Recommendation Number:** Chapter IV – No. 2

**Recommendation:** Organize the Internal Audit function to report administratively to the CEO, another non-financial senior officer, or directly to the Board of Directors

**Recommendation Status:** **Rejected.**

**Current Action Plans:** The Company respectfully disagrees with this recommendation. The Director of Internal Audit reports directly to Essential's Audit Committee Chairman and has the appropriate level of independence. This includes meeting privately with the Audit Committee Chairman five times a year. In addition to reporting to the Audit Committee Chairman, the Director of Internal Audit has full access to the Board of Directors, CEO and all of his direct reports. Internal Audit only administratively reports to the CFO for administrative tasks like approving time sheet, expense reports and general company-wide communications.

**Date to be Implemented:** N/A.

**Progress Report:**

**Person(s) Responsible for Implementation:** Dan Schuller  
EVP & CFO  
Essential Utilities

**Recommendation Number:** Chapter IV – No. 3

**Recommendation:** Establish a foundational understanding of internal audit needs as a result of the Peoples Companies’ acquisition, then resource and staff accordingly.

**Recommendation Status:** **Accepted.**

**Current Action Plans:** Throughout 2021 and the audit period in early 2022, the duties of the internal audit function related to Sarbanes-Oxley at the two companies, operational audits, direct assistance to benefit plan auditors and PwC, and fraud investigations will be evaluated. The staffing levels will be reviewed and any required changes would be implemented in 2022.

**Date to be Implemented:** Q1 – Q2 2022 - Review duties and evaluate needs and staffing.  
Q2 – Q4 2022 - Plan and implement any required staffing changes.

**Progress Report:** The combined staffing level was determined to be appropriate and was included in the 2023 budget process.

**Person(s) Responsible for Implementation:** Dan Schuller  
EVP & CFO  
Essential Utilities  
  
Chuck Twining  
Director of Internal Audit  
Essential Utilities

**Recommendation Number:** Chapter IV – No. 4

**Recommendation:** Conduct a review of completed internal audits to ensure previous recommendations are being properly implemented at the Peoples Companies.

**Recommendation Status:** Accepted.

**Current Action Plans:** The Company is reviewing the 2015-2019 audit recommendations and noting those that were complete and following-up on relevant outstanding audit recommendations. Since the acquisition of the Peoples Companies in March 2020, the Essential Utilities auditor who verifies that Aqua PA audit recommendations have been implemented has been doing the same for the Peoples Companies audits.

**Date to be Implemented:** Q1 2021 – List all Peoples operational audits and recommendations from 2015-2019.  
Q2 2021 – Prepare spreadsheet noting if recommendations have been properly implemented or not.  
Q3 & Q4 2021 – Work with management to ensure that they are implementing all outstanding relevant recommendations.

**Progress Report:** Completed.

**Person(s) Responsible for Implementation:** Dan Schuller  
EVP & CFO  
Essential Utilities  
  
Chuck Twining  
Director of Internal Audit  
Essential Utilities

**Recommendation Number:** Chapter V – No. 1

**Recommendation:** Improve internal controls and other practices related to affiliate transactions and cost allocation to ensure the company is following best practices and Commission guidelines. Further, the Peoples Companies should consult with the PUC’s Bureau of Technical Utility Services to perform a thorough review of the current AIAs on file to determine if changes to the AIAs are needed and/or if new AIAs need to be filed to ensure compliance with Title 66 Chapter 21.

**Recommendation Status:** **Accepted.**

**Current Action Plans:** At the outset, following the Peoples Companies acquisition in March of 2020, it was understood that the Peoples Companies would be subsidiaries operating under a public traded investor owned utility regulated by the SEC and would need to comply with a variety of new regulations including Sarbanes Oxley. It is the Company’s belief that the Peoples Companies will benefit from compliance with these new requirements and the Peoples Companies fully intend to address the audit’s observations going forward. It should also be highlighted that the Peoples Companies’ new sister company subsidiaries previously and currently operate in eight states with a service company model that has been analyzed and reviewed repeatedly through affiliate transaction filings and in many rate cases over the years. It is the intent of Essential Utilities to share best practices and utilize Aqua PA’s experience in providing transparency, detail, and support for affiliated transactions to the Peoples Companies.

In addition to this commitment, the Company notes that as part of the integration process between the Peoples Companies and Aqua and as explained during the PUC audit, SAP is being implemented throughout Aqua PA and Aqua’s service company. As part of the SAP integration process, a standard set of accounting polies and procedures for both the Peoples Companies and Aqua PA will be created and implemented. This will include defining internal controls and other practices related to affiliate transactions and cost allocations similar to what Aqua PA has now. Therefore, the implementation of this recommendation will coincide with the undertaking of the conversion to SAP so that updates, policy creation and documentation is done only once and then reviewed periodically going forward. SAP implementation is ongoing and initiation of drafting new AIAs and creation of an additional service company for the Peoples Companies has already begun.

**Date to be Implemented:** Peoples commits to reaching out to schedule a meeting with TUS within six months to review its currently approved AIAs and discuss any changes going forward.

**Progress Report:** After the various discussions with TUS, on November 9, 2022, Peoples filed a revised Affiliated Interest Agreement - Peoples Natural Gas Company LLC – Service Agreement with PNG Companies LLC. A Secretarial Letter at Docket No. G-2022-3036720 was issued approving the revisions. It is the Company’s understanding that no other revisions to affiliate agreements are necessary at this time.

**Person(s) Responsible for Implementation:** Dan Schuller  
EVP & CFO  
Essential Utilities

Bob Rubin  
SVP, Controller & Chief Accounting Officer  
Essential Utilities

Kim Edvardsson  
VP Finance  
Peoples Natural Gas

**Recommendation Number:** Chapter V – No. 2

**Recommendation:** Document all lease agreements between Aqua PA and its affiliates and submit them to the Commission for approval.

**Recommendation Status:** Accepted, in part.

**Current Action Plans:** At this time, Aqua PA has not entered into a lease agreement with any affiliate for the space utilized in its Bryn Mawr facility. This is due to the fact that significant construction has occurred at the facility thus necessitating a re-evaluation of the property value, square ft. occupied, and assessment of cost per sq. ft. utilized by each entity. Aqua PA is continuing to bill Aqua Services, Inc. and Aqua Customer Operations pursuant to the calculations/methods reviewed in the previous management audit that were deemed reasonable at that time. Aqua PA further expects to have a lease agreement along with a supporting market study finalized sometime in 2021 with the majority of the construction projects completed at the Bryn Mawr facility.

**Date to be Implemented:** Q4 2021.

**Progress Report:** Completed. Aqua Services' lease agreement was filed on March 2, 2022, and approved by the PUC on September 15, 2022.

**Person(s) Responsible for Implementation:** William Packer  
VP, Regulatory Accounting & Regional Controller  
Essential Utilities  
  
Alex Stahl  
Regulatory Counsel  
Essential Utilities

**Recommendation Number:** Chapter V – No. 3

**Recommendation:** Implement a policy or procedure that requires the approval of Peoples Companies employees' timesheets similar to what exists for Aqua Services employees.

**Recommendation Status:** **Accepted.**

**Current Action Plans:** The Peoples Companies will adopt the approval process that exists for Aqua Services employees where all timesheets go through the approval process. Currently the Peoples Companies only approves all non-exempt timesheets but will move to approving exempt as well.

**Date to be Implemented:** Q1 2022.

**Progress Report:** Completed.

**Person(s) Responsible for Implementation:** Chris Kelly  
SVP & Chief Human Resources Officer  
Essential Utilities  
  
Michelle Zappa  
Sr. Director, Human Resources  
Essential Utilities

**Recommendation Number:** Chapter V – No. 4

**Recommendation:** Expand Essential’s corporate charges allocation manual to include all transactions between affiliates.

**Recommendation Status:** **Accepted.**

**Current Action Plans:** The Company will update its current allocation manual and will time the update consistent with when the current filing before the Commission is approved. The Company will further update the manual to include any new allocations or methodologies that are appropriate to include in the manual. The Company respectfully submits that the corporate charges manual is a high level description of corresponding methods for charging expenses and serves a number of purposes, including internal training for employees. It is reviewed by many entities including multiple state public utility commissions and various types of auditors. There is a balance between the high level review of the process and the detail that is provided in each affiliated interest agreement that is approved in various jurisdictions. The Company will include corporate structure charts, summaries of types of services, and other descriptions as necessary. A list of agreements and examples of cost allocations will be created separately.

**Date to be Implemented:** Upon PUC approval.

**Progress Report:** The Corporate Charge Allocation Manual has been updated to adopt the most recent affiliated interest agreements through Q1 2023.

**Person(s) Responsible for Implementation:** Kimberly Joyce  
VP, Regulatory, Legislative Affairs & Corporate  
Secretary  
Essential Utilities

Mary Hopper  
Regulatory Counsel  
Essential Utilities

Bob Rubin  
SVP, Controller & Chief Accounting Officer  
Essential Utilities

**Recommendation Number:** Chapter V – No. 5

**Recommendation:** Conduct periodic market studies to confirm that goods and services provided by affiliates to the utilities are at the lower of cost or market, and goods and services provided by the utilities to affiliates are at the higher of cost or market.

**Recommendation Status:** Accepted.

**Current Action Plans:** Aqua PA agrees that this is an important recommendation to support the benefits of services provided by service company employees. As such, Aqua PA will continue to conduct periodic market studies to satisfy this recommendation.

**Date to be Implemented:** Q1 2022 and ongoing.

**Progress Report:** Market studies were completed on March 28, 2022, and determined internal support is at the lower cost in each area examined such as accounting, legal, engineering, and other management.

**Person(s) Responsible for Implementation:** Kimberly Joyce  
VP, Regulatory, Legislative Affairs & Corporate  
Secretary  
Essential Utilities

Alex Stahl  
Regulatory Counsel  
Essential Utilities

**Recommendation Number:** Chapter VI – No. 1

**Recommendation:** Perform a cost/benefit analysis to determine the feasibility of implementing an Essential Utilities money pool.

**Recommendation Status:** **Accepted, in part.**

**Current Action Plans:** The Company believes it has a money pool methodology in place. Effective Q1 2022, all Essential Utilities operations will be on one financial platform – SAP. All accounts payable disbursement will be made from one Essential Utilities disbursement account with each subsidy accounts payable processed in separate batches. Payroll will be processed through one payroll disbursement as the company will have a single entity wide paymaster arrangement. The same due-to due-from logic will be employed. Due to certain cyclical cash flows of the gas segment, short term borrowings, or cash excesses will result in either interest expense or income being recorded to the regulated subsidiaries; however, with the capital program that the Company has implemented since acquiring Peoples in March of 2020, the Peoples Companies have been a net cash borrower and are anticipated to remain so for the foreseeable future. That being said, the Company will evaluate the benefits of moving to a more formalized money pool arrangement in the future.

**Date to be Implemented:** Evaluation will be completed by Q1 2022.

**Progress Report:** Essential Utilities is unable to move towards a more formalized money pool (with PNG funds) as document splitting would need to be enabled within SAP for this to be possible. Document splitting may enable the recording of funds between entities to be more efficient but there are challenges to implementing document splitting. Essential continues to evaluate the benefits of moving to a formalized money pool.

**Person(s) Responsible for Implementation:** Brian Dingerdissen  
VP, Investor Relations & Treasurer  
Essential Utilities

**Recommendation Number:** Chapter VI – No. 2

**Recommendation:** Reduce or eliminate manual processes within the accounts payable function at Aqua PA.

**Recommendation Status:** **Accepted.**

**Current Action Plans:** Effective Q1 2022, all of Essential Utilities will be on one financial platform, SAP. This includes one version of SAP accounts payable. Unlike Lawson where ACH and wires are required to be processed manually in a separate cash management (CM) module, SAP accounts payable will have an integrated disbursement ability to print check, perform ACH and wires as well as process ACH Ghost Purchase card payments. This will eliminate manual wires or ACH.

**Date to be Implemented:** Q1 2022.

**Progress Report:** Accounting and financial SAP implementation is complete and manual wires and ACH within the accounts payable function have been reduced significantly at Aqua PA.

**Person(s) Responsible for Implementation:** Brian Dingerdissen  
VP, Investor Relations & Treasurer  
Essential Utilities

Kristen Runge  
Manager, Cash Management  
Essential Utilities

**Recommendation Number:** Chapter VI – No. 3

**Recommendation:** Develop and implement capital and operations and maintenance (O&M) budget manuals/policies that include requirements for detailed written explanations of budget variances in excess of 10% for the Peoples Companies.

**Recommendation Status:** Accepted.

**Current Action Plans:** The Peoples Companies will adopt a policy of documenting the explanations for budget variances in excess of 10% on a quarterly basis. The Peoples Companies will adopt this practice which has been in place for Aqua PA as part of its standard reporting process. Given the SIP project and its timing, the Peoples Companies will initiate this process in 2022. See also VI- 4 for discussion on policies and procedures manual.

**Date to be Implemented:** 2022.

**Progress Report:** Complete. Beginning with Q4 of 2022 Peoples began evaluating variances consistent with the recommendation.

**Person(s) Responsible for Implementation:** Kim Edvardsson  
VP Finance  
Peoples Natural Gas

**Recommendation Number:** Chapter VI – No. 4

**Recommendation:** Develop and implement new accounting/finance policies and procedures at the Peoples Companies where appropriate and ensure the policies have all the key elements, including accountability and a regular review schedule to remain timely

**Recommendation Status:** Accept.

**Current Action Plans:** Following the Peoples Companies' acquisition in March of 2020, it was understood that the Peoples Companies would be subsidiaries operating under a public traded investor-owned utility regulated by the SEC and would need to comply with a variety of new regulations including Sarbanes Oxley. It is the Company's belief that the Peoples Company will benefit from compliance with these new requirements and the Peoples Companies fully intend to address the audit's observations going forward. As a publicly traded company, quarterly earnings calls are held along with a public annual meeting, proxy and many other SEC required documents that are publicly available. It is the intent of Essential Utilities to share best practices and utilize Aqua PA's experience in providing transparency, detail, and support for new accounting/finance policies and procedures at the Peoples Companies where appropriate and ensure the polices have all the key elements, including accountability and a regular review schedule to remain timely.

Regarding the development and implementation of new accounting/finance policies and procedures at the Peoples Companies, the majority of this work will be accomplished as new accounting/finance policies and procedures are created in conjunction with the Aqua service company's implementation of SAP. The Company notes that as part of the integration process between Peoples and Aqua and as explained during the PUC audit, SAP is being implemented throughout Aqua PA and Aqua's service company. As part of the SAP integration process, a standard set of accounting polies and procedures for both the Peoples Companies and Aqua will be designed. This design will include defining internal controls and other practices related to affiliate transactions and cost allocations similar to what Aqua has now and new accounting/finance policies and procedures. The implementation of this recommendation will coincide with the undertaking of our conversion to SAP so that updates, policy creation and documentation is done only once and then reviewed periodically going forward. SAP implementation is ongoing and initiation of drafting new AIAs and creation of an additional service company for the Peoples Companies has already begun. It should also

be noted that additional policies and procedures will be defined and created in line with the full implantation of the SIP project.

**Date to be Implemented:** This project is underway. Complete implementation of the recommendation will be after Aqua PA's conversion to SAP and full completion of the SIP project, which is scheduled to conclude in 2023. With the undertaking of this SAP and SIP project implementation, the timeline to fully update policies and procedures will be dependent on the timing of the various phases of the SIP project.

**Progress Report:** SAP is in use and financial system for Aqua PA. There remains some additional work post go live which is scheduled to conclude in 2023.

As noted in response to Chapter V – No. 1 , After the various discussions with TUS, on November 9, 2022 Peoples filed a revised Affiliated Interest Agreement - Peoples Natural Gas Company LLC – Service Agreement with PNG Companies LLC. A Secretarial Letter at Docket No. G-2022-3036720 was issued approving the revisions. No other revisions to affiliate agreements are necessary. See response to for more details.

Essential Utilities has an internal audit function, overseen by the Audit Committee (all independent directors) of the Essential Board of Directors, which is sufficiently staffed with well-trained, experienced auditors. The scope of the audits ranges from financial to operational-in nature and includes both Peoples and Aqua companies. One of the internal auditors is based at Peoples on site and has extensive gas utility experience. Peoples is included in the scope of the audit by PWC of Essential Utilities, in accordance with the auditing standards of the Public Company Accounting Oversight Board, as well as a separate statutory audit of Peoples which includes obtaining an understanding of the internal controls relevant to the audit in order to design audit procedures (though not for purposes of expressing an opinion on the effectiveness of internal controls) as well as an evaluation of the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as the overall presentation of the consolidated financial statements of PNG Companies.

The accounting policies of Peoples Natural Gas have been synchronized with the policies of Aqua and documentation of shared policy and procedures is underway.

**Person(s) Responsible for Implementation:** Kim Edvardsson  
VP Finance  
Peoples Natural Gas

**Recommendation Number:** Chapter VI – No. 5

**Recommendation:** Update Aqua PA’s dividend policy.

**Recommendation Status:** **Accepted.**

**Current Action Plans:** Essential Utilities’ dividend policy has been updated to reflect the current company name and the inclusion of needed PUC notification if dividends exceed 85% of net income.

**Date to be Implemented:** Completed.

**Person(s) Responsible for Implementation:** Brian Dingerdissen  
VP, Investor Relations & Treasurer  
Essential Utilities

**Recommendation Number:** Chapter VII – No. 1

**Recommendation:** Implement a full-scale valve inspection and exercise program designed to identify what valves have not been operated or inspected in the last ten years.

**Recommendation Status:** Accepted, in part.

**Current Action Plans:** Aqua PA agrees that non-critical valve inspection and exercising program is warranted, but respectfully has concerns with the suggested exercising frequency. As part of this follow up, Aqua PA will engage a consultant to evaluate Aqua PA’s water systems and develop a non-critical valve inspection and exercising program. This effort will consider such factors as standard operating procedures for inspection and exercising, valve operating frequency, the identification of routinely operated valves, and the resources necessary to complete same. This program will ensure that non-critical valves will be inspected and exercised on a level representing good industry practice. The exercising frequency will be included in the review by the consultant and Aqua PA will provide the recommended frequency in its next update report.

**Date to be Implemented:** Engage consultant in Q2 2021 and finalize report in Q1 2022.  
Formal Inspection Program to start in Q2 2022.

**Progress Report:** Completed. The Company’s valve inspection and exercising will occur once every 12 years.

**Person(s) Responsible for Implementation:** Michael Fili  
VP, Distribution  
Aqua Pennsylvania  
  
Michael Convery  
Planning and Engineering Director  
Aqua Pennsylvania

**Recommendation Number:** Chapter VII – No. 2

**Recommendation:** Update all drought contingency plans annually.

**Recommendation Status:** **Accepted, in part.**

**Current Action Plans:** Aqua PA agrees that Drought Contingency Plans require periodic updating but respectfully disagrees with the need to do a full review annually. Aqua PA’s goal is to update drought contingency plans every 5 years. Key to this process is updating points of contact that may change and will be included.  
Aqua PA will implement a comprehensive update to all Drought Contingency Plans starting with the most dated plans working toward the relatively newer plans. After the updates, the plans will be reviewed once every five years.

**Date to be Implemented:** Q2 2022 – Waymart, Susquehanna, Main Division, and Shenango.  
Q2 2023 – Roaring Creek, White Haven, and the Western Division/Emlenton.

**Progress Report:** Q2 2022 plans for Honesdale, Susquehanna, Main Division, and Shenango have been completed.  
Q2 2023 plans have been started. Emlenton is completed. Roaring Creek and White Haven will be complete before Q2 2023.

**Person(s) Responsible for Implementation:** Todd Duerr  
VP, Production  
Aqua Pennsylvania  
  
Deb Watkins  
Environmental Compliance Director  
Essential Utilities

**Recommendation Number:** Chapter VII – No. 3

**Recommendation:** Implement measures to reduce company-at-fault hits.

**Recommendation Status:** Accepted.

**Current Action Plans:** Aqua PA currently submits and responds to at fault hits within the PA One Call Alleged Violation Reporting system. Aqua PA completed the implementation of an 811 ticket management application (Utilisphere) in February of 2021.

Aqua PA will update GIS data to the PA One Call ticketing system on a quarterly basis. In addition, Aqua PA will improve ticket tracking information by identifying the Aqua PA facility locator by name. In regard to training, Aqua PA will provide annual PA One Call training to Aqua PA employees whose responsibilities include locating Aqua PA facilities and employees who perform excavation work. Aqua PA will also conduct quarterly meetings to review at-fault hit events.

**Date to be Implemented:** Ongoing.

**Progress Report:** In Progress. Quarterly meetings are actively occurring in SEPA to discuss and review "at fault" hits. One Call training for SEPA is complete. Additional One Call training is in progress and scheduled through Q2 of 2023.

**Person(s) Responsible for Implementation:** Mike Fili  
VP, Distribution  
Aqua Pennsylvania

Michael Greim  
Area Director  
Aqua Pennsylvania

**Recommendation Number:** Chapter VII – No. 4

**Recommendation:** Increase testing and replacement of meters to improve accuracy rates.

**Recommendation Status:** Accepted, in part.

**Current Action Plans:** Aqua PA agrees meter testing provides valuable data to support meter replacement programs. Aqua PA, in coordination with an Aqua-wide initiative, is developing a meter testing policy to define goals and objectives for meter testing across the organization. It will also outline action plans for implementation. The plan will define the number of meters to be tested of different sizes and vintage and will allow for analysis of data to drive decisions related to meter selection and timing of replacement. It will outline standards for testing to ensure correct methods, flowrates, and accuracy targets are used. This data will support and adjust current meter replacement programs among other uses. The meter testing policy and action plan is scheduled to be complete December 31, 2021, with implementation to follow.

Aqua PA also agrees that most of the meter tests completed and reviewed showed a 30% failure rate for small meters approximately 20 years old. However, it should be noted that the average age of Aqua PA's small ( $\leq 1$ " ) water meters is 9 years and large ( $> 1$ " ) water meters is 5 years. Only 5% of the installed meter population is considered "aged" per the replacement intervals of 20 years for small meters and 8 years for large meters.

**Date to be Implemented:** Q1 2022.

**Progress Report:** Complete. The updated Aqua meter testing policy is now in use. Aqua PA is lot testing 10% of incoming meter shipments and up to 10% of meters retired from service as part of aged meter exchange projects. Test results ensure that new inventory meets the 2% error and 4% threshold expected on existing equipment. Results are stored in a server for reference and used in project analysis. To support Aqua's meter testing program, the test bench, and related software were upgraded in 2022. Aqua will adapt and adjust the program testing requirements to address company-specific initiatives and to match industry best practices.

**Person(s) Responsible for Implementation:** Marc Lucca  
President  
Aqua Pennsylvania

Nicholas Cerruti  
Operations Efficiency and Compliance Manager  
Aqua Pennsylvania

**Recommendation Number:** Chapter VII – No. 5

**Recommendation:** Focus efforts on reducing NRW at the Roaring Creek system.

**Recommendation Status:** Accepted.

**Current Action Plans:** Much of the water loss in the Roaring Creek System is attributed to failing customer service lines, of which Aqua PA has little control to mitigate. Specifically, many service lines are aged and of poor integrity (plastic, galvanized) that leak between the customer meter and Aqua PA's curb stop valve. When a customer side leak is found Aqua PA informs the customer in writing and allows the customer 10 days to make repairs. The termination process is initiated if the customer fails to make the repairs within 10 days. However, service is terminated immediately if the leak is compromising service to other customers or causing collateral property damage. Additionally, the soils within a large portion of the Roaring Creek system are known to be acidic which is believed to be a contributing factor in the ongoing deterioration of the service lines and main.

Other measures that Aqua PA is employing at the Roaring Creek system include:

**Main Replacement:** Starting in 2016, Aqua PA has been aggressively replacing mains across the Roaring Creek Division. In 2019 and 2020 approximately 64,500-linear-feet of main were replaced at a cost of \$16.7M. In 2021 Aqua is scheduled to replace approximately 24,000-linear-feet of main at cost of \$8M. Prior year replacement costs have been: 2018 - \$7.5M, 2017 - \$8.7M, and 2016 - \$9.5M.

**Zone Meter Installations:** In the Roaring Creek system, Aqua PA has recently installed magnetic flow meters between the pressure zones. These meters will provide data on how much water moves in an out of a pressure zone which will assist Aqua PA in targeting specific areas that demonstrate unexplained loss.

**Combating Water Theft:** Aqua PA regularly exercises diligence in detecting lost, stolen or unbilled water from its distribution system. Aqua PA partnered with consulting firm Brown & Caldwell to develop algorithms that identify theft or strange use patterns in Aqua billing and hydraulic system data. Additionally, Aqua PA's Customer Service Operations has formalized processes in place to detect unauthorized usage, and to limit exposure to theft and to maintain a bad debt /revenue ratio of less than 0.5%. Aqua PA's field personnel are also trained to spot any signs of hydrant tampering and report the same for further investigation.

In the neighborhoods and streets, Aqua PA places a very visible warning placard on each hydrant stating that unauthorized or illegal use of a

hydrant is theft to help deter unauthorized use as well as unaccounted for water. After recognizing unauthorized hydrant use, Aqua PA personnel adopt a more vigilant canvassing of the area for unauthorized connections, sometimes encouraging neighbors to report unusual hydrant connections.

**Leak Detection:** The Roaring Creek system has over 250-miles of distribution main. Aqua PA employs leak detection crews that systematically look for unauthorized consumption as well as leaks. The total Roaring Creek system (which includes 250 miles of main) was audited in 2020 and it is expected that the entire system will be audited in 2021. Leak discovery from the audit fixed 442,000 gpd in 2020. Aqua uses a leak detection contractor to perform the annual full system leak audit.

**Customer Meter Replacement:** In accordance with tariff requirements Aqua PA has an active customer meter replacement program such that customer meters are targeted for replacement on a 20-year basis. This serves to reduce the contribution of underreporting meters to apparent loss.

**Production Meter Calibration:** Aqua PA utilizes an outside contractor to calibrate source water production meters on an annual basis. Calibrations are performed in accordance with the requirements of ISO 9001:2000 and MIL-STD45662A.

**Date to be Implemented:** Ongoing.

**Progress Report:** Aqua continues to focus on water loss reduction efforts in the Roaring Creek (RC) contiguous system. In 2022, Aqua replaced 32,600 feet of water main and 449 company side service lines were renewed in the RC system. Aqua located and repaired 62 leaks/breaks that accounted for an estimated 975,500 gallons of lost water. Real Loss reduction efforts were accomplished utilizing system-wide acoustic leak detection on mains, hydrants and service connections, and Gutterman data loggers, while Apparent Loss reduction efforts included data validation with regard to billing, customer accounting, and aging meter replacements. The NRW for 2022 in Roaring Creek was 43.4% (5.3% reduction from 48.7% NRW in 2021).

Of special note, in early 2022, Aqua found a 1.25-mile-long section of leaking water main that served a very small population in the Girardville community. Due to physical access constraints, the old leaking cast iron water main was abandoned and a new booster pumping station along with a small amount of new ductile iron water main were installed to serve this small population from an adjacent pressure zone. The abandonment of the leaking pipe is estimated to have reduced water loss by 350,000 gallons per day.

**Person(s) Responsible for Implementation:** Marc Lucca  
President  
Aqua Pennsylvania

Steve Clark  
Director Operations Greater PA  
Aqua Pennsylvania

**Recommendation Number:** Chapter VIII – No. 1

**Recommendation:** Expedite bare steel replacement efforts in the companies’ distribution systems, and conduct ongoing staffing analyses to support any decision-making to fully staff, train, and monitor the workforce needs for all of the engineering, construction, and field operations positions and support positions needed to maintain future accelerated main replacement rates.

**Recommendation Status:** **Accepted.**

**Current Action Plans:** The Peoples Companies filed a revised LTIIP in September of 2020 which accelerates the bare steel replacement effort by approximately 18% on a mileage basis. The revised LTIIP was approved by the Commission on January 14, 2021. The Peoples Companies will continue to utilize its LTIIP staffing models to assist with projecting the required resources to execute the plan. Incremental mileage targets will be modeled and the output used to identify the required resources by area. The Peoples Companies will work closely with Human Resources to track performance against the plan and will meet as needed to review recruitment and hiring progress. Position control numbers will be used to assist in the tracking and filling of open positions. Likewise, the Peoples Companies will coordinate with Safety and Training to ensure an orderly and effective onboarding of additional resources.

**Date to be Implemented:** Ongoing.

**Progress Report:** In 2022, Peoples achieved 162 LTIIP miles on a target of 159. 2022 marks the second straight year of exceeding the LTIIP mileage targets in the accelerated 2021-2025 approved LTIIP and the seventh consecutive year of meeting or exceeding the LTIIP mileage target (since 2016). Total average staffing levels in the construction and engineering groups increased 9% in 2022, due in large part to the programs outlined above. Staffing levels as of February 2023 are running at 95% of target. Recruiting and onboarding efforts are ongoing.

**Person(s) Responsible for Implementation:** Paul Becker  
VP, Construction & Engineering  
Peoples Natural Gas

Ken Lyle  
Director, Pipeline Replacement and Restoration  
Peoples Natural Gas

**Recommendation Number:** Chapter VIII – No. 2

**Recommendation:** Effectively modify, track, and enforce the damage prevention program and initiate preventative solutions to minimize second- and third-party damages in significant construction areas.

**Recommendation Status:** Accepted.

**Current Action Plans:** Additional reporting segmenting second party from third party damages will be created to highlight causes both by contractor and location. New reporting will be circulated and recurring meetings with construction will be established to review root cause trends and identify and implement any remedial actions.

**Date to be Implemented:** Q4 2021.

**Progress Report:** Complete. Starting in January 2022, weekly reporting is distributed to all Managers, the full Damage Prevention Team and the Damage Prevention Steering Committee which meets monthly. Monthly meetings with major second party contractors are ongoing. Meetings with problem 3rd party contractors are scheduled as needed.

**Person(s) Responsible for Implementation:** Lynda Petrichevich  
Sr. Director, Process Operations  
Peoples Natural Gas

Deb Vergenes  
Manager, Damage Prevention  
Peoples Natural Gas

**Recommendation Number:** Chapter IX – No. 1

**Recommendation:** Establish a standard frequency for AED inspections across Aqua PA and require inspections to be tracked for all AEDs.

**Recommendation Status:** **Accepted, in part.**

**Current Action Plans:** Aqua PA agrees that inspections of AEDs is important and should be tracked. Aqua PA clarifies that manufacturers outline the inspection frequency and methods to ensure proper operations when the devices would be rarely used in the field but critical when necessary.

With that being noted, at treatment plants and facilities, monthly inspections are completed by facility employees and documented in Aqua PA’s maintenance connection software which organizes and tracks maintenance tasks. This software includes an email to supervisors if inspections are not completed within deadlines to ensure follow-up and task completion. The Aqua PA Safety Specialist is the point of contact in the event of repair or equipment needs.

In Southeastern Pennsylvania (SEPA), Aqua PA utilizes an outside, third-party vendor to perform monthly inspections on all AEDs. The vendor also provides repair or replacement of multifunctional units.

For vehicles, the meter shop and distribution group will use an electronic monthly inspection to capture AED condition status and ensure that inspections are completed. This is currently done in paper inspections with no elevation of missed inspections in the field. The Aqua PA Safety Specialist is the point of contact in the event of repair or equipment needs.

All AEDs have a physical tag for monthly inspection notations. This is in addition to electronic inspection documentation.

**Date to be Implemented:** In Q2 2021, Aqua PA will convene a meeting with SEPA, Maintenance & Distribution Department, and the Production Department to discuss more standardized practice to capture AED inspections and tracking. In Q3 2021, Aqua PA will implement the standardization of vehicles in all of Aqua PA.

**Progress Report:** Complete. AED inspections across Aqua PA have been established with a monthly frequency. In Southeastern Pennsylvania (SEPA), Aqua PA utilizes an outside, third-party vendor to perform monthly inspections on all AEDs. Tracking is available in paper form through the vendor and by tags. The AED inspections in Greater Valley PA are also performed on a monthly basis, tracking of these inspections are available and noted with tags.

**Person(s) Responsible for Implementation:** Marc McKoy  
VP Aqua Operations  
Aqua Pennsylvania

Magnolia Torres-Vezeuth  
Safety Director  
Aqua Pennsylvania

**Recommendation Number:** Chapter IX – No. 2

**Recommendation:** Establish a unified Emergency Response Plan for Aqua PA and ensure that localized conditions are captured for individual facilities.

**Recommendation Status:** Accepted.

**Current Action Plans:** The centralized Emergency Response Plan (ERP) and associated local area procedures is approximately 80% complete. Area Plans are being finalized, and management training is scheduled for April 2021.

**Date to be Implemented:** Q2 2021 – Create a unified, state-wide Emergency Response Plan, with incorporated local area plans and train management on its content and use.

Q2 2022 – Test ERP through use of tabletop exercises at each water plant and other selected operations. Create after-action report and update the ERP as needed.

**Progress Report:** Completed.

**Person(s) Responsible for Implementation:** Todd Duerr  
VP, Production  
Aqua Pennsylvania

Jeff Bickel  
Production Director  
Aqua Pennsylvania

**Recommendation Number:** Chapter IX – No. 3

**Recommendation:** Establish a unified control room security standard for Aqua PA, and upgrade existing facilities to adhere to it.

**Recommendation Status:** Accepted.

**Current Action Plans:** Aqua PA will review its existing “*Technology Systems, Networking & Application Security Policy*” to clarify the responsibility of the physical security of control room sites, equipment and applications at Aqua PA based on criticality. Aqua PA will then review/publish and communicate with employees where applicable and implement changes to physical security where deficient.

**Date to be Implemented:** Q3 2021 to draft policy.  
Q4 2021 to review/publish policy and implement improvements.

**Progress Report:** IT/OT & SCADA language was updated and formalized in policy in 2022 as planned. Work will occur in 2023 to assess and operationalize the new standards or socialize and accept risk where not feasible. Additional details are provided in update to IX – No. 6.

**Person(s) Responsible for Implementation:** Mike Fili  
VP, Distribution  
Aqua Pennsylvania  
  
Steve Clark  
Operations Director  
Aqua Pennsylvania

**Recommendation Number:** Chapter IX – No. 4

**Recommendation:** Establish a tiered physical standard for Aqua PA based on criticality of company families.

**Recommendation Status:** **Accepted, in part.**

**Current Action Plans:** Aqua PA will embark upon a review of its facilities to define tiers of criticality with recommended uniform requirements for its various facilities. This listing will establish minimum security features based upon criticality with more unique security requirements layered on top based upon the needs of individual facilities. Aqua PA will then evaluate whether to implement particular needs for facilities.

**Date to be Implemented:** Review will be completed by Q2 2022.

**Progress Report:** In Q1 2023, Aqua updated its Physical Security Plan (PSP) (ref: Chapter IX – No. 7). The PSP now includes tables related to tiered physical security standards vs. criticality of water supply facility, among other related updates. Work will occur through 2023 to perform a gap analysis and compare in-place security elements to the standard. Aqua will plan to implement any requirements determined necessary and through risk assessment that comes from the resulting gap analysis.

**Person(s) Responsible for Implementation:** Susan Haindl  
SVP & Chief Administrative Officer  
Essential Utilities

Todd Duerr  
VP, Production  
Aqua Pennsylvania

Andrew Rockwell  
Director of Supply Chain, Facilities and Physical  
Security  
Essential Utilities

**Recommendation Number:** Chapter IX – No. 5

**Recommendation:** Correct minor deficiencies in physical security and safety at Aqua PA.

**Recommendation Status:** **Accepted.**

**Current Action Plans:** Many systems have recently completed or are nearing completion of the Risk & Resiliency Assessment required by American Water Infrastructure Act of 2018. These assessments are identifying similar vulnerabilities as noted in the audit report.

Aqua PA will perform a physical review of all facilities for physical security vulnerabilities and compile them into a corrective action plan and implement improvements.

**Date to be Implemented:** Q2 2022 - Physical assessment of water plants, wells, water tanks and booster stations and other key water assets.

Q2 2021 – Q4 2022 - Corrective action plans and implementation plans.

**Progress Report:** In-field reviews and other surveillance of facility security vulnerabilities has progressed and is now a regular event as described following. Formalized work orders are the next step and will be in place by Q3 2023. Physical review of facilities has been / are conducted as follows:

Facility Type	Minimum Frequency of physical review	Comments
Wells	Weekly	Inspections are done principally by operators visiting the facility for required visits. The required visit work order includes the action to perform such a review. Deficiencies are reported to management for resolution.
Pump Sta	Monthly	Inspections are scheduled via work order system, forms completed, deficiencies reported to management for resolution
Water Plant	Daily	Inspections are done principally by operators visiting the facility for required visits. The required visit work order includes the action to

		perform such a review. Deficiencies reported to management for resolution
Storage tank	Weekly	Inspections are scheduled via work order system, forms completed, deficiencies reported to management for resolution
Dams	Monthly / Annual	All PA dams are visited at least monthly, and undergo a formal audit per PAEP requirements, using PADEP's audit form. That form includes a review of security measures.
Intake facilities remote from Water Plants	Weekly	Inspections are done principally by operators visiting the facility for required visits. The required visit work order includes the action to perform such a review. Deficiencies reported to management for resolution.
Operating and corporate offices	Daily	Includes maintenance buildings / supply yards. Facilities are staffed 5-days / week and are protected by various forms of security systems including cameras, electronic door entry key-fobs, security guards.

**Person(s) Responsible for Implementation:** Todd Duerr  
VP, Production  
Aqua Pennsylvania

**Recommendation Number:** Chapter IX – No. 6

**Recommendation:** Designate responsible parties, review existing security protocols and measures, and address deficiencies with the physical security needs of IT components at Aqua PA and Essential Utilities.

**Recommendation Status:** **Accepted.**

**Current Action Plans:** Essential Utilities will draft a policy to clarify the responsibility of the physical security of IT/OT and SCADA equipment and applications at Aqua PA sites. Essential Utilities will then review/publish and communicate with Aqua PA employees where applicable.

**Date to be Implemented:** Q2 2021 to draft policy.  
Q3 2021 to review/publish policy.

**Progress Report:** Complete. Formal IT/OT & SCADA language was updated and formalized in policy in 2022 as planned, and addresses physical security areas, physical entry controls, surveillance equipment, protections against physical threats, and equipment security. Work will occur in 2023 to assess and operationalize the new standards or socialize and accept risk where not feasible. Such activities include partnering with operations resources to identify the applicable locations and control selections needed. For locations where the physical security controls do not meet the expected level of assurance, a risk exception can be approved by management in our Archer system, and formally tracked while a plan is put in place to remediate.

**Person(s) Responsible for Implementation:** Sumit Nair  
Chief Information Officer  
Essential Utilities

John Childers  
Director of Information Security  
Essential Utilities

**Recommendation Number:** Chapter IX – No. 7

**Recommendation:** Perform a physical security drill and/or tabletop exercise annually at Aqua PA.

**Recommendation Status:** Accepted.

**Current Action Plans:** Aqua PA agrees with this recommendation and will review and update the current Physical Security Plan.

**Date to be Implemented:** Q4 2021 – Update the Physical Security Plan.

Q4 2022 – Conduct a physical security drill and/or tabletop exercise that simulates a security threat at a major facility.

**Progress Report:** Q1 2023 – Aqua will conduct a tabletop exercise at two water treatment facilities. We are seeking support from the Pennsylvania State Police Risk and Vulnerability Assessment Team (RVAT) to provide an in-depth security vulnerability assessment at a Water Treatment Plant, along with options for consideration to improve our security posture. Once the assessment is completed, we will evaluate our other Treatment Facilities for the same.

Q1 2023 – Physical Security Plan reviewed and updated.

**Person(s) Responsible for Implementation:** Marc A. Lucca  
President  
Aqua Pennsylvania

Todd Duerr  
VP, Production  
Aqua Pennsylvania

**Recommendation Number:** Chapter IX – No. 8

**Recommendation:** Supply rescue hooks at all locations with open topped aerated basins and tanks deep enough to submerge employees at Aqua PA.

**Recommendation Status:** Accepted.

**Current Action Plans:** Aqua PA will evaluate facilities and determine where rescue hooks would be appropriate. After this evaluation, Aqua PA will purchase rescue hooks and distribute to field staff for installation at facilities.

**Date to be Implemented:** Rescue hooks will be purchased and distributed by the end of Q3 2021.

**Progress Report:** Complete. Rescue hooks were distributed near open-topped aerated basins and tanks at all applicable locations.

**Person(s) Responsible for Implementation:** Todd Duerr  
VP, Production  
Aqua Pennsylvania  
  
Matthew Miller  
Treatment Director  
Aqua Pennsylvania

**Recommendation Number:** Chapter X – No. 1

**Recommendation:** Fully develop and standardize all policies and procedures at Aqua PA.

**Recommendation Status:** **Accepted.**

**Current Action Plans:** The Company agrees to develop and standardize all policies and procedures related to materials management. As discussed previously, Aqua PA is undergoing a significant conversion to SAP. During the conversion from Lawson to SAP, both Materials Management departments of Essential Utilities will draft policies and procedures using a formal policy template that will include version history and date information.

**Date to be Implemented:** Q4 2022.

**Progress Report:** Complete. Materials management policies and procedures were implemented in Q4 2022.

**Person(s) Responsible for Implementation:** Sue Haindl  
SVP & Chief Administrative Officer  
Essential Utilities

Andy Rockwell  
Director, Supply Chain, Facilities and Physical  
Security  
Essential Utilities

**Recommendation Number:** Chapter X – No. 2

**Recommendation:** Incorporate inventory accuracy into key performance indicators at the PNG Companies and improve accuracy in all storerooms.

**Recommendation Status:** **Accepted.**

**Current Action Plans:** During Aqua PA’s conversion from Lawson to SAP, both Materials Management departments of Essential Utilities will coordinate and implement key performance objectives for inventory accuracy in all storerooms.

**Date to be Implemented:** Q4 2022 – Completed for review and approval  
Q1 2023 – Proposed implementation

**Progress Report:** Materials management performance objectives development was completed in Q4 2022, and implementation is on track for Q1 2023.

**Person(s) Responsible for Implementation:** Sue Haindl  
SVP & Chief Administrative Officer  
Essential Utilities

Andy Rockwell  
Director, Supply Chain, Facilities and Physical  
Security  
Essential Utilities

**Recommendation Number:** Chapter XI – No. 1

**Recommendation:** Continue outreach efforts to engage payment troubled customers, leverage low-income resources, grants, and programs to mitigate the overall level of unpaid customer balances, and accelerate first contact with customers who miss a payment.

**Recommendation Status:** **Accepted.**

**Current Action Plans:** The Peoples Companies have a comprehensive outreach and education program that focuses on informing low-income customers about available grants (LIHEAP, Dollar Energy Fund Hardship Fund) and the Customer Assistance Program (CAP). In addition to the outreach plan, which includes an annual focused bill insert with income eligibility information as well as regular messaging in customer correspondence and emails, the Peoples Companies also offers online resources through its ProgramFinder. The ProgramFinder at [www.peoples-gas-com/assistance](http://www.peoples-gas-com/assistance) is a screening tool that identifies the programs the customer is potentially eligible for and connects them to methods of enrollment and participation. The Peoples Companies' outreach plan is reviewed on an annual basis and adjusted according to trends and audience considerations.

Aqua PA has implemented targeted outreach for low-income customers through a bill insert focused on Helping Hand as well as online resources through its website, including its blog. To increase effectiveness of outreach efforts, beginning in 2021, Aqua PA and the Peoples Companies will coordinate efforts through their communication department to increase visibility of low-income programs for all customers.

**Date to be Implemented:** Ongoing.

**Progress Report:** Aqua filed a Consumer Education and Outreach Plan with the PUC in November of 2022. The Plan was developed with input from the Helping Hand Collaborative group (OCA, PA PUC Communications Team, PULP) and mirrors methods used by the Peoples' companies. Aqua's updated website has been rolled out and the development team has begun work on the Program Finder tool which will be implemented this year.

**Person(s) Responsible for Implementation:** Rita Black  
Director, Community Assistance Programs  
Essential Utilities

Haindl, Susan F  
Senior Vice President and Chief Administrative  
Officer, Essential Utilities

**Recommendation Number:** Chapter XI – No. 2

**Recommendation:** Document instances of theft of service, meter tampering, unauthorized tie-ins, etc. and formalize periodic refresher training to ensure new and existing staff are kept apprised of recent cases, investigation outcomes, and safety precautions for Aqua PA.

**Recommendation Status:** Accepted.

**Current Action Plans:** Aqua PA agrees that a robust theft of service training program should be two-fold, including both automated safeguards and new employee and periodic refresher training for field service and meter reading staff. Current theft of service education has occurred informally at staff meetings and other gatherings. Aqua PA will formalize this training over the next six months. The new annual program will include a presentation with photos of examples of theft and meter tampering, review theft of service workflows and reporting requirements, and a general discussion on the discovery process and employee safety considerations.

**Date to be Implemented:** Q1 2022.

**Progress Report:** Complete. Aqua Meter Operations Department training materials have been updated to explicitly address identifying theft of service, protocols for meter installation safety, and guidance for navigating challenging customers. Additionally, all new field service representatives (FSR) shadow a senior FSR to learn the processes and procedures associated with the different service orders, including theft of service or tampering investigations. Regular meetings are held with all FSRs and office staff to review any changes in process, technology, or operational priorities. Addressing safety, customer service, and tamper identification are common topics.

Aqua staff uses tamper indicators captured during meter reading and monthly reporting to proactively identify suspected theft of service, tampering, and unauthorized usage. As a result, over 4800 work orders were explicitly executed to investigate potential customer intervention in 2022. Further refinement of the back-office tamper identification and account prioritization is ongoing.

**Person(s) Responsible for Implementation:** Marc McKoy  
VP Aqua Operations  
Aqua Pennsylvania

Nicholas Cerruti  
Operations Efficiency and Compliance Manager  
Aqua Pennsylvania

**Recommendation Number:** Chapter XI – No. 3

**Recommendation:** Improve the functionality and workflow progression provided by Aqua Services' customer information system.

**Recommendation Status:** Accepted.

**Current Action Plans:** Aqua PA will be migrating to SAP and upgrading its customer contact center technology in conjunction with the System Improvement Project (SIP). This will be a significant benefit to customers and employees. As noted, Aqua's current customer information system is antiquated and part of the SIP project includes replacing its current legacy system with the goal of providing the most optimal customer service experience and performance for Aqua PA customers. Implementation of SAP and the greater SIP project has started and will continue through 2023.

**Date to be Implemented:** Ongoing.

**Progress Report:** Aqua PA is working on a project to implement a new customer web portal and mobile application for Aqua PA customers to use. Aqua PA is also adding text notifications for customer appointments and payment reminders. These tools will give Aqua PA customers access to more information and ability to self-serve, both beneficial to customers. The move from Banner to SAP will facilitate implementation of this recommendation and that process is ongoing.

**Person(s) Responsible for Implementation:** Heather Doyle-Conley  
VP Customer Operatoins  
Essential Utilities

Tom Geddis  
Director, Municipal Acquisitions Integrations, Rates  
and CIS  
Essential Utilities

**Recommendation Number:** Chapter XI – No. 4

**Recommendation:** Benchmark with similar utilities to set separate net collection goals for primary and secondary collection agencies at the Peoples Companies and measure each collection agency to the respective collection goal.

**Recommendation Status:** **Accepted.**

**Current Action Plans:** The Peoples Companies will update collection agency goals establishing separate net collection goals for each primary and secondary placement with collection agencies using benchmarking and industry data collected specific to utilities to ensure agency performance is being evaluated based on actual recoveries:

1. Updated collection agency goals to net collection goals for primary & secondary placements separately.

a. Primary Net Collection Goal = 8 - 10%

b. Secondary Net Collection Goal = 0.8 - 1%

Track and report monthly and annual agency collection activity.

Compare against goals and ongoing benchmarking statistics.

**Date to be Implemented:** The Peoples Companies have collected AGA Benchmarking and other utility-based collections data to use for setting the collection agency goals. The Peoples Companies are currently in the process of updating goal requirements with each of the collection agencies within the Peoples Companies' portfolio. The Peoples Companies expect to have the goals updated, and the agencies on board with new goals by September 30, 2021. Reports have been created to monitor collection activity and measure each agency against the goals by month and year.

**Progress Report:** All primary collection agencies currently have a net back rate of 8% and all secondary have a net back rate of 1%.

**Person(s) Responsible for Implementation:** Sue Haindl  
SVP & Chief Administrative Officer  
Essential Utilities

Heather Doyle-Conley  
Sr. Director, Customer Service  
Peoples Natural Gas

**Recommendation Number:** Chapter XI – No. 5

**Recommendation:** Establish goals to achieve for customer satisfaction performance at the Peoples Companies and complete an analysis at the end of 2021 to evaluate the effectiveness of the IVR redesign, including Chat Box, in improving customer satisfaction metrics.

**Recommendation Status:** **Accepted.**

**Current Action Plans:** The Peoples Companies will complete a review of the IVR scores year over year (2016-2020) as well as benchmark those scores against other utilities using scores in the Customer Service Performance Report to determine an appropriate goal.

In addition, the Peoples Companies will evaluate the effectiveness of the IVR using Voice of Customer surveys, as well as explore more opportunities to promote self-serve including Chat Bot.

**Date to be Implemented:** Currently in process of reviewing goal requirements within the Peoples Companies’ portfolio. The Peoples Companies expect to have the goals established by September 30, 2021. The overall IVR effectiveness analysis will be completed at 2021 year-end.

**Progress Report:** Peoples overall satisfaction was ranked highest in 2022 among all gas companies in PA. Peoples has concluded that the IVR changes have made an overall positive impact in customer satisfaction.

<b>IVR Category – 2022 YE</b>	<b>Peoples</b>	<b>Base</b>
IVR Ease	80.63%	78.2%
IVR Choices	81.10%	77.2%
IVR Overall Satisfaction	81.59%	78.6%

**Person(s) Responsible for Implementation:** Sue Haindl  
SVP & Chief Administrative Officer  
Essential Utilities

Heather Doyle-Conley  
Sr. Director, Customer Service  
Peoples Natural Gas

**Recommendation Number:** Chapter XI – No. 6

**Recommendation:** Perform an analysis of source data being gathered for arrearage level reports and remove any adjustments or inactive accounts that would adversely affect the integrity of arrearage data for the Peoples Companies.

**Recommendation Status:** **Accepted.**

**Current Action Plans:** The Peoples Companies conducted a review of data upon initial discovery of reporting integrity issues in August 2020. Corrections to the reporting queries were made and an updated report was filed with the PUC in September 2020. In order to preserve the accuracy of arrearage reporting, the following items will be implemented.

1. Create automatic reporting directly from SAP (monthly/annually).
2. Process will be validated through quarterly audits at the account level.

**Date to be Implemented:** Q3 2020 – Removed adjustments or inactive accounts  
Q1 2021 – Reporting logic adjusted and USR complete

**Progress Report:** Completed.

**Person(s) Responsible for Implementation:** Sue Haindl  
SVP & Chief Administrative Officer  
Essential Utilities

Heather Doyle-Conley  
Sr. Director, Customer Service  
Peoples Natural Gas

**Recommendation Number:** Chapter XIII – No. 1

**Recommendation:** Perform a periodic vehicle lease vs. buy analysis at Aqua Pennsylvania and the Peoples Companies, to ensure Pennsylvania operations is utilizing the least cost option for acquiring vehicles and equipment.

**Recommendation Status:** **Accepted.**

**Current Action Plans:** The fleet and finance departments will work in conjunction to review a total cost of funding for the Company’s fleet vehicles.

**Date to be Implemented:** Q1 2022.

**Progress Report:** Fleet and Finance solicited leasing information from a Global competitive leasing company. Both groups are in early stages of the process of and are working on a final analysis.

**Person(s) Responsible for Implementation:** Charlie Stevenson  
VP Fleet  
Essential Utilities

Ryan Milko  
Fleet Manager  
Essential Utilities

**Recommendation Number:** Chapter XIII – No. 2

**Recommendation:** Implement Dossier as PNG Companies' fleet management system.

**Recommendation Status:** **Accepted.**

**Current Action Plans:** Dossier was implemented at PNG Companies in October 2020.

**Date to be Implemented:** Completed.

**Progress Report:** Completed.

**Person(s) Responsible for Implementation:** Charlie Stevenson  
VP Fleet  
Essential Utilities

Ryan Milko  
Fleet Manager  
Essential Utilities

**Recommendation Number:** Chapter XIV – No. 1

**Recommendation:** Establish an internal OSHA recordable rate goal for the Peoples Companies based upon industry performance and align safety programs to achieve the OSHA goal(s).

**Recommendation Status:** Accepted, in part.

**Current Action Plans:** The Peoples Companies have always tracked and reported OSHA rates and will continue to do so. However, since OSHA incidents include Medical Treatment incidents (tick bites, dog bites, poison ivy, minor scrapes, etc.) that have no impact on operations or productivity, the Peoples Companies will continue to establish annual rates for Lost Time/Restricted Time (LT/RT) rates, and utilize LT/RT as the metric for driving safety initiatives and reducing risks and hazards. This is consistent and aligns with the Aqua PA operations and overall Essential enterprise-wide safety programs.

**Date to be Implemented:** N/A.

**Progress Report:** Peoples established annual LT/RT rates for 2022 and is developing target rates for 2023 based upon industry and AGA benchmarks. The Peoples' Safety team continues to participate in the Essential Once Company safety initiative in aligning the safety strategy and programs between the Peoples and Aqua operations.

**Person(s) Responsible for Implementation:** Ed Palombo  
VP, Reliability  
Peoples Natural Gas  
  
Chad Ravotti  
Manager, Safety and Training  
Peoples Natural Gas

**Recommendation Number:** Chapter XIV – No. 2

**Recommendation:** Measure employee engagement on a regular basis for the Peoples Companies in order to trend employee enthusiasm and motivation and reveal opportunities for improvement.

**Recommendation Status:** Accepted.

**Current Action Plans:** Following the acquisition of the Peoples Companies in March 2021, the Peoples Companies and its affiliates are now participating in regular employee engagement surveys. The first survey was completed in May 2020 and the second survey was completed in November 2020. Employee engagement surveys will continue to be conducted on a regular basis.

**Date to be Implemented:** Ongoing.

**Progress Report:** Engagement surveys are ongoing with 1-2 completed each year.

**Person(s) Responsible for Implementation:** Chris Kelly  
SVP & Chief Human Resources Officer  
Essential Utilities

Michelle Zappa  
Sr. Director, Human Resources  
Essential Utilities

**Recommendation Number:** Chapter XIV – No. 3

**Recommendation:** Implement a safety management system at the Peoples Companies.

**Recommendation Status:** **Accepted.**

**Current Action Plans:** The Peoples Companies will implement the Cority safety management system currently used by Aqua PA operations. The Peoples Companies will also continue to build and develop the components and elements of the Pipeline Safety Management System (PSMS) for gas pipeline operations.

**Date to be Implemented:** Implementation of Cority is targeted for Q3 2021.  
PSMS elements will be developed by year end 2021.

**Progress Report:** Complete. Cority has been implemented across the Peoples operations for managing the safety metrics and statistics. The QA/QC fusion audit program of the Peoples Pipeline Safety Management System is fully implemented and integrated with the LTIIP construction program. QA/QC audits are being conducted for both Peoples construction crews, and contractor crews.

**Person(s) Responsible for Implementation:** Ed Palombo  
VP, Reliability  
Peoples Natural Gas

Chad Ravotti  
Manager, Safety and Training  
Peoples Natural Gas

**Recommendation Number:** Chapter XIV – No. 4

**Recommendation:** Expedite the succession planning process, alongside with Essential Utilities, to ensure the Peoples Companies develop and recruit key positions.

**Recommendation Status:** **Accepted.**

**Current Action Plans:** The Essential Utilities succession plan was presented and approved by the Board in Spring 2021 to include all companies and key positions. The organizational development team has created a succession program development strategy to be implemented for those leaders identified.

**Date to be Implemented:** Completed.

**Progress Report:** Completed.

**Person(s) Responsible for Implementation:** Chris Kelly  
SVP & Chief Human Resources Officer  
Essential Utilities

Laurie McGarvey  
Organizational Development Manager  
Essential Utilities

**Recommendation Number:** Chapter XIV – No. 5

**Recommendation:** Update all job descriptions for the Peoples Companies.

**Recommendation Status:** Accepted.

**Current Action Plans:** Human Resources is in the process of consolidating all jobs to one Essential Utilities platform and the Peoples Companies' job descriptions will be updated as part of this process.

**Date to be Implemented:** Q2 2022.

**Progress Report:** Completed.

**Person(s) Responsible for Implementation:** Chris Kelly  
SVP & Chief Human Resources Officer  
Essential Utilities

Michelle Zappa  
Sr. Director, Human Resources  
Essential Utilities