Peoples Gas System
Distribution Facility Inspections
Follow-up Audit

NOVEMBER 2015

BY AUTHORITY OF
The Florida Public Service Commission
Office of Auditing and Performance Analysis
Peoples Gas System
Distribution Facility Inspections
Follow-up Audit

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1.0 Executive Summary

1.1 Purpose and Objectives

In 2013, the Florida Public Service Commission’s (FPSC or Commission) Office of Auditing and Performance Analysis conducted an audit to examine the processes, systems, and internal controls used by Peoples Gas System (PGS or the company) to perform inspections of its distribution facilities. As a result of deficiencies noted, Commission audit staff’s September 2013 report recommended a follow-up audit be performed at the appropriate time to assess the corrective actions taken by PGS.

This follow-up audit was initiated in July 2015. The purpose of this second audit is to assess the adequacy and effectiveness of the company’s response to the 2013 findings. This assessment includes all corrective actions taken over the period October 2013 through September 2015.

The specific objectives of the 2015 audit are to:

♦ Determine the company’s compliance with Chapter 25-12, Florida Administrative Code (F.A.C), Safety of Gas Transportation by Pipeline.

♦ Determine whether the company is adequately managing the inspection of its distribution facilities in compliance with the company’s operational policies and procedures.

♦ Assess the company’s current practices for tracking and recording inspections of distribution facilities.

♦ Identify internal control deficiencies, operational issues, or possible corrective actions regarding the inspection of its distribution facilities.

1.2 Methodology and Scope

Planning, research, and data collection for this review were performed in July through September 2015. The information compiled in this audit report was gathered through company responses to document requests and onsite interviews with key employees. Specific information reviewed included:

♦ Gas inspection results and records
♦ Organizational and operational changes relating to facilities inspections
♦ System changes related to facilities inspection and compliance tracking
♦ PGS compliance inspection reviews
♦ Commission’s natural gas pipeline safety evaluations
The scope of the audit included the company’s statewide operations and the organization responsible for testing and maintaining PGS distribution infrastructure. Commission audit staff sought to determine whether the company’s gas inspection programs are operating effectively to ensure compliance with the Florida Administrative Code (F.A.C.) and the company’s operating policies and procedures.

Additionally, audit staff examined the various processes and data systems (including their internal controls) used to track completion and proper execution of facility inspection activities. Commission audit staff analyzed the following areas as they relate to the company’s field operations for the period 2014 to date:

- Completion of surveys and inspections in compliance with Commission rules
- Record-keeping tools and practices
- Internal compliance inspection reviews
- Management oversight and employee training

Commission audit staff’s review places primary importance on internal controls as referenced in the Institute of Internal Auditors Standards for the Professional Practice of Internal Auditing and in the Internal Control - Integrated Framework developed by the Committee of Sponsoring Organizations (COSO) of the Treadway Commission. Work is done in compliance with Institute of Internal Auditors Performance Standards 2000 through 2500. Internal controls assessments focus on the COSO framework’s five key elements of internal control: control environment, risk assessment, control activities, information and communication, and monitoring.

### 1.3 Findings of 2013 Commission Audit

Commission staff’s September 2013 audit report included findings regarding violations of Chapter 25-12 F.A.C., inadequate management oversight, and inadequate record-keeping tools and practices. Although the audit scope was focused on the Tampa and St. Petersburg divisions, Commission audit staff currently believes these concerns may have, at that time, also applied to other divisions across the Peoples Gas system.

Over the period 2009 to mid-2013, PGS did not have control over required surveys and inspections, allowing for many to go uncompleted. Where inspections had been performed, record keeping was still inadequate.

Commission audit staff found PGS management oversight to have been ineffective or deficient, allowing out of compliance conditions to continue. Management at several levels did not require accountability from regional and division managers.

Commission audit staff noted the following six findings in the 2013 audit report:


Finding 3: During the period 2010 to date, sufficient information was available to PGS management that it should have been aware that the company was not in compliance with Commission rules.

Finding 4: Lack of attention to compliance inspection reviews allowed detected compliance deficiencies to persist.

Finding 5: Inadequate record-keeping and work planning systems allowed compliance deficiencies to develop and persist.

Finding 6: As a result of this audit, PGS has recognized the magnitude of the deficiencies, instituted significant organizational and operational changes, and developed a comprehensive corrective action plan to address the unremedied deficiencies.

1.4 Overall Opinion and Findings of 2015 Commission Audit

Overall Opinion
PGS compliance initiatives since the 2013 Commission audit appropriately targeted the greatest needs for improvement. However, despite progress made during 2014 and 2015, substantial additional efforts are needed to accomplish a change in culture and in practices to fully support compliance with state and federal safety regulations. Additional monitoring by the Commission is necessary to confirm such changes are accomplished.

Finding 1: During portions of the period October 2013 through September 2015, PGS did not complete timely leak surveys as required in Rule 25-12.040, F.A.C.

Recommended Corrective Action
♦ PGS should engage a third party to audit the accuracy of compliance activity and reporting system-wide over the period October 2013 through September 2015. The audit scope should include determining whether reporting irregularities or fraud occurred at any of its operating divisions during this period.

Finding 2: Management-level employees failed to maintain and document adequate awareness of and accountability for required inspection activities during
2014 and 2015. In some cases, this allowed inspection results to be falsified and to remain undetected.

**Recommended Corrective Actions**

♦ PGS should reassess whether each supervisor and manager fully understands and is committed to the changes it has sought to institute in its approach to compliance.

♦ All PGS managers should regularly review status reports produced by Essentials and maintain contact and accountability with supervisors regarding any deficiencies.

♦ PGS should engage a third party to audit the accuracy of compliance activity and reporting system over the period October 2013 through September 2015. The audit scope should include determining the adequacy of internal controls over compliance activities and reporting provided through both Essentials and PGS processes and procedures.

**Finding 3:** The intended full use and benefits of Essentials had not yet been achieved as of September 2015.

**Recommended Corrective Actions**

♦ PGS should finalize training needed in GL Essentials.

♦ PGS should continually seek and address employee input regarding both problems and improvements to GL Essentials.

♦ Going forward, PGS should deploy adequate resources to keep data entry of completed inspections up-to-date in GL Essentials.

♦ PGS should develop standardized procedures for GL Essentials, and closely monitor its use by employees to identify any retraining needs.

**Finding 4:** Changes made during 2014 and 2015 to the scope, content, and structure of PGS’ Division Compliance Reviews substantially reduced their value and effectiveness.

**Recommended Corrective Actions**

♦ PGS should reinstitute the broader scope, thorough testing, and detailed format of Compliance Reviews conducted between 2009 and 2013. The addition of a quick-look checklist in 2014 and 2015 should be retained to provide a recap, but additional detail is needed for effective reporting.
♦ PGS should require a formal letter of response from division management to each Compliance Review, including an action plan of specific corrective measures, designation of accountable employees, and targeted implementation dates.

♦ PGS operations management should verify completion and adequacy of corrective actions taken by division management.

Finding 5: TECO Energy Audit Services has not played a sufficient role in auditing PGS operations.

Recommended Corrective Actions
♦ TECO Energy Internal Audit should assist with the recommended third-party audits and maintain an ongoing pro-active role in monitoring regulatory compliance within PGS operations.

♦ TECO Energy Internal Audit should communicate regularly with PGS operational management regarding Compliance Review results.

♦ TECO Energy Internal Audit management should make regular reports to the Board of Directors Audit Committee, highlighting the overall effectiveness of the PGS compliance program.
2.0 PGS Corrective Initiatives

Since 2013, PGS has implemented corrective initiatives to improve direct oversight and accountability of operations. These initiatives included creation of a centralized Operational Shared Services department to support gas operations on a statewide basis, an extensive inventory of compliance assets to create a standardized naming convention, a top-to-bottom assessment of repeat compliance violations reported by FPSC field staff, and an active awareness campaign involving every supervisor in PGS. Commission audit staff examined and assessed these initiatives as well as the following key areas PGS targeted for improvement:

- 2013-2014 Corrective Action Plans
- Management Oversight
- Organizational Changes
- Compliance Tracking Software
- Compliance Inspection Reviews
- Personnel Qualification Training

2.1 2013-2014 Corrective Action Plans

2.1.1 Planned Improvements

Commission audit staff’s 2013 report of PGS distribution facility inspections detailed the PGS corrective action plans addressing areas of noncompliance that occurred in the company’s Tampa and St. Petersburg divisions. The corrective action plans were created by PGS upper management who seized the opportunity to identify instances of non-compliance over the course of the Commission staff’s audit. PGS management identified 100 instances of non-compliance, which included findings of cathodic protection, regulator stations, odorization, atmospheric surveys, leak surveys, and leak reports. Each corrective action plan contained a list of the compliance inspection review findings, a summary of each finding, management’s response to each finding, and the resolution status.

During 2014, PGS reviewed all compliance inspection reviews and PSC safety evaluations from previous years and identified several areas of repeat compliance findings throughout the whole company. The top five repeat areas of concern included:

- Failure to complete compliance obligations at proper frequency
- Failure to accurately complete leak reports
- Inaccuracy of maps, maintenance logs, and field identification
- Insufficient documentation of action
- Failure to address atmospheric corrosion

During the year 2014, management devoted a multitude of resources to address these key areas of repeat non-compliance. This included changing the scope of the 2014 compliance inspection reviews to focus solely on evaluating areas of repeat violations. In July 2014, the company held three meetings with territory team members directly involved in compliance activities to evaluate
the company’s compliance status for the year and to brainstorm ways to ensure compliance for the remainder of the year.

2.1.2 Achieved Results
PGS had remedied 83 percent of the identified items in the corrective action plans by publication of the Commission’s audit report in September 2013. Corrective actions included numerous organizational, operational, and system changes that were implemented not only in the Tampa and St. Petersburg divisions, but also affected statewide operations. Statewide corrective actions taken were updating of mapping systems, reviewing and assessing training of employees, implementation of self-auditing guidelines and purchasing of a new compliance tracking system. As part of this follow-up audit, Commission audit staff requested for PGS to provide an update of the 2013 corrective action plans for the Tampa and St. Petersburg divisions. PGS stated that all corrective action plans have since been resolved with some requiring continuing follow-up.

While the company tried to address repeat non-compliance, the company was not successful in completely correcting all the issues that it had previously identified. Exhibit 1 depicts the total number of PSC violations the company incurred over the period 2012 through July 29, 2015. As shown, the number of violations has increased from 24 in 2012 to a projected 116 violations by year end 2015.

![Exhibit 1](source: Response to Document Request 1.9)

During the period 2012 to 2015, the company has experienced numerous repeat findings throughout the divisions. Timeliness of inspections and corrosion control have been consistently the most pervasive violations through the whole company. Violations regarding maps and
recordkeeping, inactive service lines, and training sharply increased in 2015. However, violations regarding facilities identification and regulator stations and valves decreased in 2015.

The company states that a review lag exists in the safety evaluations of the PSC inspectors. The inspectors sample records of the previous calendar year. Thus, the company states that the number of PSC violations shown for 2015 reflects conditions occurring during 2014. The company predicts the number of violations will decrease in 2016 due to the full 2015 implementation of the Essentials compliance software.

Repeat violations have been a major issue for years. While the company’s PSC violations increased in 2014 and 2015, PGS has made a substantial effort each year to address previous PSC inspection violations. In 2013, 30,000 inspections were found to be out of compliance. The company states that it has decreased this number by 62 percent in 2014, and by September 2015, the company has decreased the instances of out of compliance by 90 percent. The implementation of the Essentials compliance software in 2015 has helped the company meet compliance inspection timeframes. The company has also employed third party contractors to help perform inspections as needed.

While the company made substantial improvements in tracking and recording of compliance inspection activities, some inspections continue to be completed outside of the compliance timeframe. While the number of out-of-compliance inspections has decreased since 2013, over 3,000 inspections were found to be past due in 2015 using the Essentials software.

2.2 Management Oversight

In late 2013 PGS executive management sought to change the company culture and approach regarding compliance with safety regulations. Understandably, PGS management believed prior failures by key managers to fully attend to compliance tracking demanded a change of course.

2.2.1 Planned Improvements

Establishing Expectations

The Vice President of Electric and Gas Operations communicated his expectations to all PGS operations managers and supervisors. This specifically included adherence to governing safety rules (Chapter 25-12, F.A.C. and CFR 49 Parts 191 and 192), as well as to TECO’s Code of Ethics and Business Conduct, TECO Core Values, and PGS O&M and Construction manuals. Each manager and supervisor pledged to perform their duties and obligations in a responsible manner that satisfies the obligations and requirements identified in each of these documents.

Management Accountability

In October 2013, the Director of Gas Operations instituted a weekly “huddle call” to address day-to-day compliance or operational issues with territory managers, division managers, and division supervisors. The intended benefit was to increase involvement, communication and accountability regarding daily operations.
The Director of Gas Operations also communicated his expectations for territory managers and their division managers and supervisors. He instituted a self-audit process intended to track the status of seven specified key management areas, including compliance program performance. Managers were instructed to maintain records and documentation of the reviews and audits for at least a year to demonstrate effective management and oversight within the specified areas of operations.

**Leak Survey Planning Change**

PGS management created a one-year buffer for leak survey and atmospheric survey activities to ensure compliance with future regulatory timeframes. For example, the services with a required three-year leak survey frequency were planned and dispatched using a two-year cycle. This causes a larger annual survey workload, but is intended to increase flexibility and provide a margin for error in maintaining compliance. Due both to this acceleration, and overdue work from prior years, the workload for the divisions increased. This led to a higher use of third-party contractors to help perform the inspections.

### 2.2.2 Achieved Results

#### Aggressive Work Schedule

From late 2013, PGS undertook an aggressive work schedule to correct past inspection lapses and to provide a future insurance against past-due inspections. Exhibit 2 illustrates the percentage of inspection workload completed during 2013 and 2014. During these years, the company completed inspections that exceeded the normal annual work load. The company performed all inspections that remained incomplete from 2013 and prior years revealed by the 2013 Commission audit.

<table>
<thead>
<tr>
<th>Year</th>
<th>Inspections Completed</th>
<th>Inspections Required</th>
<th>Percent of Work Completed</th>
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<tr>
<td>2013</td>
<td>298,845</td>
<td>260,164</td>
<td>114.9%</td>
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<tr>
<td>2014</td>
<td>278,640</td>
<td>243,039</td>
<td>114.6%</td>
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Exhibit 2  
Source: Response to Document Request 1.17

#### Lack of Self-audit Documentation

During 2014 and 2015 PGS operations managers operated under a directive to conduct self-audits and document the status of seven specified key management areas, including compliance program performance. Managers were instructed to maintain records and documentation of these reviews and audits. This initiative appeared to be intended to correct past failures of territory and division managers to maintain an awareness of the status of leak surveys, cathodic protection system inspections, etc. It should be noted that these self-audits would provide an additional layer of control beyond the existing internal compliance inspection reviews discussed in Section 2.5.
Commission audit staff conducted a detailed review of the self-audit documentation provided by the 14 PGS divisions from late 2013 through August 2015. The review indicated virtually no documentation of self-audits of compliance activities. In stark contrast, detailed attention and record-keeping was performed for all of the other key management areas specified by this initiative (e.g., budget performance, payroll records, GPS vehicle tracking, and purchasing.) One division did appear to understand the requirement for tracking compliance activities, providing copies of 12 monthly status reports for 2014 and listings of surveys completed, out-of-date, or to be due in future months. In addition this single division provided evidence of periodic meetings addressing compliance status or status of implementation of Essentials.

Tracking of numerous categories of compliance activities and their timing necessarily requires written documentation, frequently updated reports, and work plans. The lack of this documentation can only be seen by Commission audit staff as evidence that managers did not follow the directive from Director of Gas Operations and that tracking of compliance did not take place. The Director had warned managers in writing during July 2014 that “the FPSC inspectors are unable to confirm that we are in compliance based on lack of documentation.”

Commission audit staff believes that PGS employees anticipated the 2015 implementation of Essentials and therefore failed to take adequate action during 2014 to track compliance activities.

**Falsified Ocala Division Records**

Despite efforts placing a high priority on compliance, in mid-2015, the company became aware, that there may have been instances of fraudulent activity involving falsification of leak survey reports in the company’s Ocala division. Allegations were made to a PSC field inspector which were subsequently communicated to the company. These allegations prompted an investigation by TECO Energy’s Director of Corporate Ethics and Compliance under the direction of corporate senior management.

The investigation was thorough, including a review of the original allegations, other allegations that came to light during the inquiry, and interviews with all Ocala division personnel. Ultimately, two allegations were found to be supported by evidence. The final report verified that approximately 1,907 2014 Ocala Area leak surveys were falsified, as was a Personnel Training Journal Record. The investigation resulted in the termination of three employees, including a supervisor. Additionally, one manager was disciplined for failure to provide adequate management oversight and two employees were disciplined for failure to adhere to procedures.

Commission audit staff believes two management-level employees with Ocala division responsibilities did not honor their pledges to the Vice President of Electric and Gas Operations. All PGS managers were required to certify individually that they would adhere to Chapter 25-12, F.A.C., to CFR 49 Parts 191 and 192, to TECO’s Code of Ethics and Business Conduct and to TECO Core Values and would “perform their duties and obligations to the fullest, and in a manner that satisfies the obligations and requirements identified in each of the above documents.” Until completion of additional audits (described below), it will remain unclear whether there has been failure of other PGS employees to follow these rules.

Two basic root causes allowed the fraud to occur. First, the management employees responsible for Ocala results did not proactively maintain awareness of compliance activity and direct its
completion. Second, since Essentials was not yet implemented during 20014, PGS was at the time still using the paper compliance tracking system. The paper system was vulnerable to abuse due to several internal control weaknesses. Three Ocala division employees took advantage of these control weaknesses in an attempt to meet leak survey requirements.

**Planned Further Investigations**

As a result of the 2015 Corporate Ethics and Compliance investigation, the TECO Energy Audit Services Department has been tasked to oversee similar fraud investigations to determine whether the same or similar conduct has occurred elsewhere in the Company. Due to the magnitude of the investigations, the Audit Services engaged KPMG LLC and Veriforce LLC to jointly conduct the investigations. TECO Energy Audit Services personnel have teamed with KPMG and Veriforce auditors to perform the investigations throughout the state beginning in October 2015.

### 2.3 Organizational Changes

#### 2.3.1 Planned Improvements

During late 2013 and early 2014, PGS performed an assessment of both its personnel and organization to identify needed structural changes. The company sought to increase the degree of management oversight and focus directed towards safety compliance.

Prior to October 2013, PGS gas operations were overseen by an East Region director and a West Region director. As shown on Exhibit 3, the new organizational plan places all gas operations under a single director who would be assisted by four Territory Managers. The operations of the 14 divisions were still overseen by managers and supervisors. To clearly designate responsibility for compliance activities, supervisor positions were added within smaller divisions, and Compliance Administrators were named for every division.

#### 2.3.2 Achieved Results

By May 2014, the company began the above restructuring of positions responsible for managing, conducting and tracking compliance activities. Where necessary, reassignments of personnel were completed based upon the re-evaluation of strengths and capabilities.

The company created a Gas Operational Shared Services group led by a director. This unit centralized certain activities such as GIS and mapping, that were once distributed among divisions. Shared Services includes Pipeline and Hazardous Materials Safety Administration (PHMSA)/FPSC Compliance, Damage Prevention, Safety, Integrity Management, Personnel Operator Qualification training, and Manuals, Standards, and Technical services.

Three new operations supervisor positions were created in the Daytona, Tampa, and Jupiter divisions. Also, a new GIS supervisor position oversees the centralization of all GIS activities to ensure consistency in maintaining asset records, compliance data, and maintenance of the company’s mapping system.

The company added several construction inspector positions to perform oversight of contractor construction activities. To increase standardization and efficiency, the company substantially
reduced the number to construction contractors it uses. Additional specialized contractors still aid with compliance activities such as leak surveys and cathodic protection inspection. In the future, the company may increase the number of field technicians to decrease the use of contractors.

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**Exhibit 3**

**Source:** Response to Document Request 1.1

### 2.4 Compliance Tracking Software

#### 2.4.1 Planned Improvements

In 2013, the company recognized the need for an electronic compliance management tracking system to replace its paper system. A Reporting Task Force Steering Committee was created to oversee the purchase and implementation of the new system. After assessing various options, the
system selected was GL Noble Essentials (Essentials). It tracks the real-time compliance status of the following key compliance activities in all 14 operating divisions:

- Leak Surveys
- Atmospheric Surveys
- Cathodic Protection Inspection and Maintenance
- Regulator/Gate Station Inspection and Maintenance
- Valve Inspection and Maintenance

**Mapping Accuracy Improvements**

Accurate mapping of assets is essential to locating and inspecting equipment as required by applicable statutes. In preparation for implementation of Essentials, PGS Geographic Information System (GIS) team completed an inventory of all compliance-specific assets to create a standardized naming convention, updated and consolidated maps from each division into one mapping system, and ensured GIS data going into Essentials was accurate. This required adding all paper map information. Approximately 10,000 assets were added to the GIS mapping system. To maintain accuracy, the GIS team also developed a SharePoint site for the division offices to submit errors found of the GIS maps.

Essentials interfaces with several other systems as shown in **Exhibit 4**. The company’s GIS and Customer Information System (CIS) provide Essentials with all main pipeline asset information and service line information, respectively. Updated GIS and CIS data are published into Essentials nightly.

Essentials also interfaces with the Leak Information and Damage Reporting System (LIIaDRS). LIIaDRS is the program that houses all leak incident and leak repair records. Presently, field technicians fill out a leak identification form that is manually input by a division administrator into LIIaDRS. LIIaDRS publishes that information to Essentials, which schedules the leak repairs. The company is considering incorporating the leak and leak repair functions in Essentials in order to house all compliance records in one system.

**Field Data Input**

Field technicians use mobile laptops to run the Essentials Field Manager program. This program receives and documents all inspection activities. The division compliance administrator assigns specific work tasks to technicians. The technicians plan their own route and work sequences based on geographic locations and compliance dates. Meanwhile, the compliance administrators track the status and completion of these activities. As inspections near their compliance date, the compliance administrator receives an alert. Field technicians input completed inspections into the Field Manager application. Essentials Field Manager will not allow close out of the inspection until all required fields are filled. This control ensures collection of all needed data and electronically “timestamps” the inspection results to ensure accurate and timely inspections. Once an inspection has been completed, it cannot be changed and becomes the basis for the next inspection. Subsequently, the information from Field Manager is uploaded to the Essentials database.
Compliance Reports
Though not yet available through most 2015, Essentials has the ability to produce compliance reports on all inspection activities. This would allow management at all levels to see snap-shots of the compliance status of the company and divisions. These reports are to be tracked and reviewed by the compliance administrator of each division, but management has the ability to also create and review these reports. The company is currently working with the software provider to customize reports for use by the Commission inspectors to review in future compliance reviews.

2.4.2 Achieved Results
Initially, the vendor outlined a 15-month implementation schedule with completion in March 2015. PGS requested an aggressive alternative schedule to “Go Live” by January 1, 2015. This date was achieved and training for actual use of the system began. By April 2015, initial training had been completed for all 14 PGS divisions.

Essentials had to be loaded with a baseline “last inspection dates,” to use in planning future years’ inspections. According to PGS, all needed previous inspection data was entered by year-end 2014.

Processing Essentials Backlog
As a result of training required for the rollout of Essentials, PGS field technicians performed inspections and captured results for at least two months of 2015 using the paper method. At the same time, third party contractors also performed their leak surveys, atmospheric surveys and
corrosion control inspections using the paper system since they were not authorized or trained to use Essentials. These two circumstances contributed to the growth of a “backlog” of completed inspections that awaited data entry into Essentials. This backlog was still being eliminated through September 2015.

Internal Compliance Inspection Reviews for the larger divisions conducted during 2015 identified the need for more resources to input the backlog of paper based data. The company added additional resources to remedy the backlog and cleared the backlog by October 2015. According to PGS, 10 out of 14 divisions have completed the input of their backlog of information in Essentials. Furthermore, to ensure that this will not be an ongoing issue moving forward, PGS established a procedure requiring all paper input be uploaded within two weeks after the work is performed. Commission audit staff believes that given the length of time PGS management has been addressing the backlog, management could and should have imposed these procedures at the onset of the backlog problem.

**Essentials Functionality Delayed**

Although the roll-out of Essentials occurred in January 2015, the full functionality of the Essentials compliance tracking software was not available for at least the first nine months of 2015. As of October 2015, all management reports can currently be run from the system to provide organized view of inspection compliance.

Through September 2015, management had to manually track compliance within the Essentials system. The proficiency with use of these management reports varies throughout the divisions. Commission audit staff believes that management is not currently utilizing Essentials and its management tools to their fullest capacity.

### 2.5 Compliance Inspection Reviews

#### 2.5.1 Planned Improvements

**Original Approach and Content**

In 2009, PGS implemented a regular program of compliance inspection reviews conducted by the Administrator of Gas Operations who is part of the System Engineering and Safety Unit. The compliance inspection reviews were performed statewide throughout PGS service territories, providing two evaluations of each division every year. Observations, action items and follow-up recommendations were very specific and the person responsible for follow-up (division management) would act on recommendations until the issue was resolved. Commission audit staff noted in its 2013 audit report that these compliance inspection reviews are a key quality assurance control that provides the company with the ability to determine whether surveys and inspections were done properly and whether they were timely. Commission audit staff further found these assessments to be well done, thorough and of high potential value to managers at all levels of PGS operations.

**Revised Approach and Content**

For 2014 and 2015, PGS purposely changed the scope of the compliance inspection reviews. In 2014, the goal of the compliance inspection reviews was to verify that employees involved in
inspection activity were aware of the compliance obligations and job procedures and processes. Additionally, the 2014 compliance inspection reviews scope included an evaluation of areas of repeat violations. Assessment results were captured on a cryptic check sheet as opposed to a fully descriptive report format used from 2009 through 2013. A summary report was presented to all operating management personnel including upper management on the status of areas of repeat violations cited by the PSC and also by the Company’s internal compliance inspection reviews. This presentation was used as a vehicle to identify corrective actions for repeat violations.

In 2015, the goal of the compliance inspection reviews was to verify that the statewide Essential software solution was operating as intended and properly rolled out in the Company’s operating areas. A cryptic check sheet was still used, focusing upon the “on time” status of inspections and activities. No formal management responses were required to obtain commitments for corrective action, assignment to specific individual and a specific completion date.

2.5.2 Achieved Results

**Reduced Value of Reviews**

The format, scope and nature of the 2014 and 2015 Compliance Inspection Reviews accomplish far less those of 2009 through 2013. The changes in focus for 2014 were somewhat understandable as management did need to retrain employees, reemphasize requirements, and reassign duties, etc. Likewise, in 2015 it was necessary to verify that Essentials was understood and being used and meeting the company’s needs. However, this should be the duty of direct line managers and should not have been the major or sole focus of the Manager of Pipeline Compliance, other than as one step in verifying the activities complied with procedures. This change of focus appears to have diminished the effectiveness and the coverage of compliance reviews during 2014 and 2015. It is difficult to validate that all corrective action needed as a result of 2015 spot checks has been completed. Without a formal and complete management response at the time of the reviews, the Manager of Pipeline Compliance never will know if all “intended” corrections were carried out. An after-the-fact description could list what was done but may not reflect intended actions that never were completed or attempted.

**Lack of Communication with Audit Services**

Despite Commission audit staff’s recommendation in 2013, TECO Energy Audit Services Department has yet to play a sufficient role in auditing PGS operations. While staff’s 2013 audit report was discussed once with the TECO Energy Board of Directors Audit Committee, it appears that no continuing reporting regarding compliance review results took place. Even with the 2015 conversion from a paper compliance tracking system to an electronic one (Essentials), and the problematic history of late or non-existent inspections, no internal audit of the transition was initiated. As a result, the TECO Energy Board could be under-informed about PGS activities and issues such as inadequate safety and compliance.

According to the Institute of Internal Auditor’s Professional Practices, internal audit activity should evaluate risk exposures relating to the organizations’ governance, operations and information systems regarding the following:

- Reliability and integrity of financial and operational information
- Effectiveness and efficiency of operations
♦ Safeguarding of assets
♦ Compliance with laws, regulations, and contracts

TECO Energy Audit Services Department should take a continuing pro-active role in monitoring regulatory compliance and safety issues. Regular reports to the Audit Committee should be made regarding compliance reviews performed by the Manager of Pipeline Compliance and any irregularities or violations discovered.

## 2.6 Personnel Qualification Training

### 2.6.1 Planned Improvements

Compliance reviews during 2009 to 2013 had indicated continuing problems with personnel qualification training and record keeping. In 2013, PGS created a Training Task Force to oversee and evaluate the company’s natural gas operator qualification training.

### 2.6.2 Achieved Results

In June 2015, the company completed its transition from a manual operator qualification program to a standard-compliant and centralized Personnel Qualification Program. Previously, the manual operator qualification program was monitored differently by each division using a paper system allowing requalification dates to slip. The new Personnel Qualification Program is centrally managed by the Manager of Technical Training and is based on the American Society of Mechanical Engineers Standard B31Q. This new program allows the Manager of Technical Training to better track employee training as well as deliver a more consistent qualification and requalification training state-wide.

The transition to the Personnel Qualification Program took three years to fully implement. Over 250 PGS employees were requalified on all of their operator qualification tasks. There are approximately 101 tasks depending on specialized function of the technician. The qualification process consists of a combination of both classroom or online instruction and a field evaluation. The company also created an apprentice program for new hires.
3.0 Overall Opinion and Findings

Commission staff notes the following findings and conclusions regarding the adequacy and effectiveness of the company’s response to its 2013 findings and all corrective actions taken over the period October 2013 through September 2015.

3.1 Overall Opinion

PGS compliance initiatives since the 2013 Commission audit appropriately targeted the greatest needs for improvement. However, despite progress made during 2014 and 2015, substantial additional efforts are needed to accomplish a change in culture and in practices to fully support compliance with state and federal safety regulations. Additional monitoring by the Commission is necessary to confirm such changes are accomplished.

3.2 Leak Survey Non-Compliance

Finding 1: During portions of the period October 2013 through September 2015, PGS did not complete timely leak surveys as required in Rule 25-12.040, F.A.C.

Failure to comply with 25-12.040, F.A.C. over a portion or all of this period resulted from fraudulent reporting of completed leak surveys during 2014 in the Ocala Division. Two basic root causes allowed the fraud to occur.

First, the management employees responsible for Ocala results did not proactively maintain awareness of compliance activity and direct its completion, as discussed in Finding 2 below. Second, since Essentials was not yet implemented during 2014, PGS was at the time still using the paper compliance tracking system. The paper system was vulnerable to abuse due to several internal control weaknesses. Three Ocala division employees took advantage of these control weaknesses in an attempt to meet leak survey requirements for addresses in this division.

Currently it is not known whether other compliance activity results (e.g. leak surveys, cathodic protection inspection, atmospheric inspection) were fraudulently reported elsewhere within PGS’ operations. The company has recognized the need for a comprehensive system-wide review to investigate this key issue and has initiated a third-party review that began in October 2015. Completion of the review is expected in January 2016.

It is expected that the Essentials system will provide internal controls that will prevent the type of fraud committed in Ocala. Management should remain vigilant to ensure this is the case.

Recommended Corrective Action

♦ PGS should engage a third party to audit the accuracy of compliance activity and reporting system-wide over the period October 2013 through September 2015. The audit scope should include determining whether reporting
irregularities or fraud occurred at any of its operating divisions during this period.

### 3.3 Lack of Management Awareness

**Finding 2:** Management-level employees failed to maintain and document adequate awareness of and accountability for required inspection activities during 2014 and 2015. In some cases, this allowed inspection results to be falsified and to remain undetected.

All Division managers should have understood and supported company-wide efforts to make a culture change placing emphasis on compliance with safety requirements. Effective management employs sufficient controls to prevent falsification of records and communicates to employees that such behavior will not be tolerated.

Three employees collaborated in falsely reporting completion of 2014 leak surveys that were not performed for up to approximately 1,907 service addresses.

Managers must obtain sufficient information to determine whether their employees are performing required tasks. Documentation should be maintained to confirm this review by managers is adequate and is regularly performed. Managers must hold supervisors accountable for ensuring required work is performed correctly.

**Recommended Corrective Action**

- PGS should reassess whether each supervisor and manager fully understands and is committed to the changes it has sought to institute in its approach to compliance.

- All PGS managers should regularly review status reports produced by Essentials and maintain contact and accountability with supervisors regarding any deficiencies.

- PGS should engage a third party to audit the accuracy of compliance activity and reporting system over the period October 2013 through September 2015. The audit scope should include determining the adequacy of internal controls over compliance activities and reporting provided through both Essentials and PGS processes and procedures.

### 3.4 Incomplete Implementation of Essentials

**Finding 3:** The intended full use and benefits of Essentials had not yet been achieved as of September 2015.

The full capabilities and benefits of the Essentials compliance tracking software were not available for at least the first nine months of 2015. This resulted from developments during the
year including the need for retraining, delayed input of a backlog of surveys completed by contractors, and completion of Essentials system enhancements.

Retraining was requested by key Essentials users beginning in the second quarter of 2015, and PGS engaged GL Noble to complete the retraining. To complete the required annual inspections for 2014 and 2015, plus PGS’ additional elective “accelerated” inspections, the company made use of outside contractors. Contractors completed all work using the existing paper-based process during 2015 while Essentials was being implemented. A large “backlog” of completed surveys using paper records formed, awaiting input into the Essentials system. It is not clear whether this backlog could have been prevented by management.

Through at least September 2015, Essentials management summary reports could not be run from the system to provide a comprehensive view of inspection compliance. This resulted in part from skewed results due to the backlog of completed reviews, which Essentials reflected as “past due”. As a result, PGS division managers were handicapped in tracking status of compliance work unless they devised their own solutions, which some opted to do.

Though the electronic system began to be widely used late in the first quarter after initial roll-out and training, users were understandably not immediately fully comfortable and proficient.

**Recommended Corrective Action**

- PGS should finalize training needed in GL Essentials.
- PGS should continually seek and address employee input regarding both problems and improvements to GL Essentials.
- Going forward, PGS should deploy adequate resources to keep data entry of completed inspections up-to-date in GL Essentials.
- PGS should develop standardized procedures for GL Essentials, and closely monitor its use by employees to identify any retraining needs.

### 3.5 Reduced Effectiveness of Compliance Reviews

**Finding 4:** Changes made during 2014 and 2015 to the scope, content, and structure of PGS’ Division Compliance Reviews substantially reduced their value and effectiveness.

Key changes were made to the Compliance Review process by operations management after 2013. During 2014, the reviews were specifically focused on determining whether employees understood their compliance-related job requirements to prevent “repeat violations”. Limited spot checking was performed. Similarly, during 2015, the reviews focused on the degree of understanding and acceptance of Essentials through limited spot checking. In commission audit staff’s opinion, the format, scope and nature of the 2014 and 2015 Corporate Compliance
Reviews resulted in diminished value in comparison to those completed during 2009 through 2013.

Commission audit staff believes these two objectives were more properly the duty of direct line managers. The Compliance Reviews should have maintained a focus on identifying compliance failures during 2014 and 2015. This role had proven valuable in the past, having previously identified most of the deficiencies that led to the 2013 Commission audit.

During 2014, Compliance Reviews provided no detailed description of deficiencies for division management to correct. During both 2014 and 2015, no requirement existed for division management to respond to the review, describing corrective actions to be taken and setting due dates. Accountability was not required.

Any internal audit or review should clearly describe deficiencies observed and recommend solutions. Management response and commitment to corrective action should be obtained, designating a responsible party and due date to ensure timely and thorough follow-up.

**Recommended Corrective Action**

♦ PGS should re-institute the broader scope, thorough testing, and detailed format of Compliance Reviews conducted between 2009 and 2013. The addition of a quick-look checklist in 2014 and 2015 should be retained to provide a recap, but additional detail is needed for effective reporting.

♦ PGS should require a formal letter of response from division management to each Compliance Review, including an action plan of specific corrective measures, designation of accountable employees, and targeted implementation dates.

♦ PGS operations management should verify completion and adequacy of corrective actions taken by division management.

**3.6 Insufficient Involvement of Internal Audit Function**

**Finding 5:** TECO Energy Internal Audit has not played a sufficient role in auditing PGS operations.

Despite the risks inherent in the 2015 conversion from a paper compliance tracking system to an electronic one (Essentials), and the problematic history of late or non-existent inspections, no internal audit of the transition was initiated. This represents a significant missed opportunity.

It is Commission audit staff’s understanding that by early 2014, the TECO Energy Audit Committee was fully informed of the problems and recommendations detailed in staff’s 2013 audit report. In that report, Commission audit staff recommended that all Compliance Review findings should be shared with TECO Audit Services. The Director of Audit Services confirmed that this suggested communication has not taken place.
According to the Institute of Internal Auditors’ (IIA) Professional Practices 2110.A2,

Internal audit activity should evaluate risk exposures relating to the organizations’ governance, operations and information systems regarding the 1) reliability and integrity of financial and operational information 2) effectiveness and efficiency of operations 3) safeguarding of assets 4) compliance with laws, regulations, and contracts.

**Recommended Corrective Action**

♦ TECO Energy Internal Audit should assist with the recommended third-party audits and maintain an ongoing pro-active role in monitoring regulatory compliance within PGS operations.

♦ TECO Energy Internal Audit should communicate regularly with PGS operational management regarding Compliance Review results.

♦ TECO Energy Internal Audit management should make regular reports to the Board of Directors Audit Committee, highlighting the overall effectiveness of the PGS compliance program.
4.0 Company Response

4.1 Peoples Gas System Response

PGS appreciates the opportunity afforded by the Commission audit staff to respond to this report. From the moment the company became aware of the audit, it cooperated fully in providing the documents and company personnel sought by the audit staff, and made every effort to accommodate the staff’s schedule for completion of its audit. The company has already implemented, or begun to implement, all of the recommended corrective actions included in this report.

Safety is the company’s number one priority, outweighing all other considerations. It is important to note that no instance of noncompliance identified in this report resulted in any PGS employee, PGS customer, or member of the public experiencing any injury or damage to property.

In response to the September 2013 Facilities Inspection Audit (which involved only the company’s Tampa and St. Petersburg divisions), to which the current statewide audit was a follow-up, the company developed even before the audit was complete a corrective action plan to address and correct the issues of noncompliance brought to the attention of the company’s upper management by the audit report. As recognized by Commission audit staff in the 2013 report, that plan involved not only correcting the identified noncompliance, but also statewide organizational changes, the creation of new positions and groups to better manage and track compliance activities, centralizing core compliance functions, instituting a statewide compliance management software solution (the “Essentials” software referenced numerous times in this report) and standardizing operator qualification training. In addition to the actions listed in the original plan the company also retained the services of Veriforce LLC, with expertise in the area of pipeline safety matters, the applicable rules, and their interpretation, to assist in evaluating and strengthening the company’s compliance efforts.

These corrective actions did not commence until late 2013 and initially focused only on the St. Petersburg and Tampa divisions. In 2014 further actions taken on a state wide basis increased the time for full implementation. As noted in this report:

- All 250 of the company’s field technicians were requalified to perform over 100 different tasks.
- In excess of 10,000 company assets previously tracked on paper were inventoried and added into the company’s GIS mapping system.
- The compliance management software ultimately purchased by the company (the “Essentials” program referenced numerous times in this report) had to be selected, purchased, implemented and tested, and all field technicians had to be trained in its use. As with any new software program of this magnitude the company monitored the system performance during the first year of use (2015) and made system modifications along the way to ensure a successful rollout. This also included providing additional training as necessary to improve end user knowledge and acceptance.
It should be noted that each of PGS’s 14 divisions and seven transmission pipelines are inspected by Commission field inspectors each year for regulatory compliance purposes (a total of at least 21 separate individual inspections annually). The company’s integrity management plans and other required plans are also inspected periodically. While our goal is for zero violations, there are certain requirements in the Florida/federal pipeline safety regulations over which the company has limited control (e.g., a customer has his home painted, and the painter paints over the required sticker on one of the company’s more than 367,000 gas meters, or a state or county contractor mowing the road right-of-way knocks over a pipeline marker). Any of these events could happen the day before a Commission inspection without the company’s knowledge, but could nevertheless be cited as a violation.

The report suggests that the company was not successful in addressing repeat noncompliance, stating that the number of violations increased from 2012 through a projected number of violations for 2015. See Exhibit 1 to this report. It should be noted that the corrective action plan was incapable of addressing 2013 issues because that year’s compliance activities had already occurred (i.e., 2013 compliance records were inspected in 2014). Further, a number of the violations cited in 2015 (involving 2014 compliance) are currently under review with the Commission staff, and the company has provided additional information requested by staff. As shown by the chart below, the company believes the number of cited violations should actually decrease for 2015.

![Violation Summary 2012 - 2015 YTD](chart)

* 2015 YTD, through October. 18 of 21 audits complete.

The incident involving the collaboration of three PGS employees to falsify reports of premise leak surveys which were not performed in one of the company’s divisions is fairly summarized in this report. As a result of the falsifications, the company will re-perform before the end of 2015 not just the surveys that may have been falsified, but all of the 2014 required leak surveys for that division (approximately 9,900). As a further result of the internal investigation conducted by the company into this incident, and as described in this report, TECO Energy Audit Services has engaged KPMG LLC and Veriforce LLC, who are (as of the date of this response) jointly conducting an audit to determine whether the same or similar conduct has occurred.
elsewhere in the company. This review will cover the time period from January 2014 through the date of audit. The company presently anticipates that audit to conclude in January 2016.

Finding 3 of this report deals with Essentials. The company has seen very positive results from the use of this new compliance management software, which replaces the paper-based and non-standardized system that had been in place for many years. User acceptance is high and Essentials has provided the company with an organized way to schedule, complete and report on the over 987,000 required compliance inspections and surveys that must be conducted on a statewide basis. The Company is providing additional end user training, and dedicated resources to avoid or minimize backlog, and plans to further expand the use of Essentials in additional areas to fully leverage this software.

The company’s spot checks referenced in Finding 4 of this report were very helpful from an operational and compliance perspective as PGS focused on implementing the key compliance initiatives undertaken following the 2013 audit. As communicated during the Commission follow-up audit, the company will be reinstituting in 2016 the broader scope compliance reviews that include formal tracking of follow-up action items and will provide a better view of the company’s compliance status and greater accountability for any corrective action that might be required.

As recommended in the Commission’s audit report, the TECO Audit Services group will play a greater role in providing assurance for the compliance oversight of PGS operations. The Audit Services group will be involved with evaluating the design of appropriate internal controls as well as monitoring the effectiveness of those controls as indicated by an annual risk assessment. Audit Services will communicate regularly with both PGS operations management as well as the TECO board Audit Committee.

The Company has taken numerous positive improvement actions since the September 2013 Commission audit to bring its compliance controls and programs to an effective and sustainable level. For example, it has centralized core compliance functions (e.g., GIS), instituted Essentials statewide, and standardized operator qualification training. Those improvements have come with countless hours of employee time and effort, and the expenditure of significant resources. PGS believes the positive results of the company’s implementation of the multiple compliance initiatives during the past two years will be reflected when the Commission performs its 2016 field inspections. The company is committed to continuing to examine and improve its compliance programs and internal controls to ensure the ongoing safe and reliable operation of its system.
5.0 Appendix

**Appendix 1 Commission Rules**


The specific parts of chapter 25-12 reviewed by staff during this audit include:

**Rule 25-12.022 - Requirements for Distribution System Valves** requires the installation of isolation valves to be placed upstream of each regulator station, sectionalizing valves to reduce the timing necessary for emergency shutdown, and blow down valves to aid the evacuation of gas from segments of mains between isolation valves in emergency conditions for isolation of the distribution system.

Valve installation records are required to be marked for easy identification, with a durable tag or equivalent means. All valves necessary for safe system operation must be inspected and maintained at intervals not exceeding 15 months, but at least each calendar year.

**Rule 25-12.029 – Limiting Use of Pipeline Casings** prohibits the installation of casings on metal pipeline unless necessary for the installation process of the pipeline or justifiably required by an appropriate governmental authority.

**Rule 25-12.040 - Leak Surveys, Procedures and Classifications** requires the utility to perform gas leak surveys at least once each calendar year, not to exceed 15 months, in certain locations. Surveys of bare metallic, galvanized steel, and coated tubing pipelines must be conducted at an interval not to exceed three years. Remaining system pipeline must be surveyed every five years, or more frequently if experience requires. The rule requires a leak classification system to be used on all leak records and reports based upon a grade 1, grade 2, or grade 3 type leak. The adequacy of all leak repairs is required to be checked immediately after being completed, and the date and status of rechecks are to be recorded on the leak repair records.

**Rule 25-12.050 - Facility Identification** requires that gas service line valves at multi-service installations such as apartment buildings be plainly marked by a metal tag or other permanent means designating the building or part of the building being served. However, the meter may be marked in lieu of the service line. The marking of each customer meter, gas regulating station, or above ground gas transport facility must be permanently marked to identify the operator’s name and phone number. Marking will be by metal signs, line markers, plastic decals, or other appropriate means.

**Rule 25-12.052 - Corrosion Control Criteria for Cathodic Protection of Buried or Submerged Metallic Pipeline** provides the criteria for proper cathodic protection of steel, cast
iron, and ductile iron pipeline. Cathodic protection is used to prevent and deter the potential corrosion of metal pipeline facilities. A negative cathodic voltage of at least 0.85 volt, must be made with the protective current applied in accordance with Appendix D to Part 192, Title 49, Code of Federal Regulations (2011). This is the only criteria accepted for determination of the degree of cathodic protection for externally coated buried or coated submerged pipelines installed after June 1, 1975. The criteria for bare and essentially bare ineffectively coated metallic gas pipelines installed prior to July 31, 1971 require a net protective current from the electrolyte into the structure surface at predetermined current discharge points to protect the pipeline from corrosion. Each pipeline under cathodic protection is required to be tested at least once each calendar year, within an interval not to exceed 15 months to determine whether protection is in compliance with the Rule. If gas leakage from active corrosion is discovered on a pipeline, the utility is required to take subsequent corrective actions including cathodic protection to repair the leakage conditions. Repairs are required to be completed, or substantial progress toward correcting the deficiencies must be made within three months.

**Rule 25-12.053 - Cathodic Protection – Electrical Survey** requires each utility operator to have a comprehensive written procedure to evaluate electrical survey data on cathodically unprotected pipelines and identify areas of active corrosion where protection is needed. The Rule requires a combination of pipe/soil potential and soil resistivity tests to be completed for initial surveys. When active corrosion is identified and the utility has no knowledge of electrical requirements for the system, tests to determine the degree of protective current required for cathodic protection are required. The utility may not be able to complete an electrical survey of an underground pipeline system in some conditions. For instance, it may not be practical to complete a survey when large obstructions lie in a position directly above the pipeline.

**Rule 25-12.055 - Odorization of Gas** requires each utility receiving gas directly through a transmission supplier, and distributing gas in a system serving more than 25 customers to odorize all gas transported. The purpose of odorization is to ensure gas leakages can be readily detected and repaired. The Rule requires utilities to sample downstream of all injection points to assure the presence of odorant in the required concentration. At least twelve times per calendar year, at intervals not greater than 45 days, each utility is required to test gas odorization concentrations using equipment manufactured for odorant testing.

**Rule 25-12.060 - General Records** provides instruction for maintaining system records necessary for Commission review. The Rule requires the utility to keep records to show compliance with Commission rules and adopted codes. All tabulations, standards, drawings, records of incidents, procedures or studies related to compliance with Commission rules are to be recorded and maintained for review by appropriate Commission personnel. All records are required to be organized, arranged, or prepared so that compliance can be readily determined. All records are to be retained within the state of Florida unless the Commission exempts the utility from the provision. The Rule also provides retention timeframes for different types of records.

**Rule 25-12.062 - Leak Reports** are required to provide records of gas leaks identified on the utility’s system. The minimum information to be kept for leak reports includes, the address of the suspected leak, date and time reported, description of the leak, date and time the utility
dispatched repair personnel, date and time of arrival, date and time the condition was made safe, the location of the leak found, and the cause of the leak.

**Rule 25-12.085 - Written Annual Reports Required** are submitted to the Department of Transportation (D.O.T.) and Florida Public Service Commission by each utility to update records of their gas distribution system. These reports provide annual pipeline summary data by operators of gas pipeline facilities located within the United States. The reports are provided for the preceding calendar year, to be received by the Commission no later than March 15th of each year.