



CITY OF RICHMOND
CITY AUDITOR

DATE: November 7, 2018

TO: Selena Cuffee-Glenn
Chief Administrative Officer

FROM: Louis Lassiter *Lou*
City Auditor

SUBJECT: DPU Contract Compliance Audit

The City Auditor's Office has completed the Contract Compliance audit and the final report is attached.

We would like to thank the staff in the Department of Public Utilities for their cooperation and assistance during this audit.

Attachment

cc: The Richmond Audit Committee
The Richmond City Council
Mr. Robert Steidel, DCAO of Operations
Mr. Calvin Farr, Director of Public Utilities



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2019-06

Department of Public Utilities

Contract Compliance

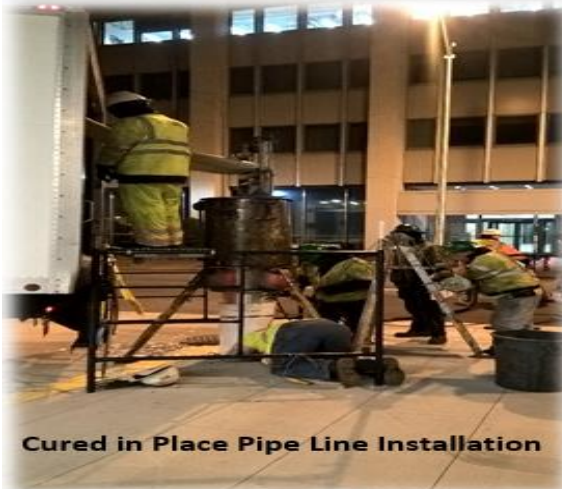
City of Richmond, VA
City Auditor's Office
November 7, 2018



Replacement of Cast Iron Pipe



Trench Cut for New Gas Services



Cured in Place Pipe Line Installation



Steel Pipe Placement

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Highlights

Audit Report to the Audit Committee,
City Council, and the Administration

Why We Did This Audit

The Office of the City Auditor conducted this audit as part of the FY19 audit plan approved by the Audit Committee.

This audit focused on contract compliance for the annual gas renewal and new gas installation services contracts.

What We Recommend

- *The Deputy Director II of Richmond Gas Works and Streetlights continue to work with Procurement Services to remove the markup language from the specifications.*
- *The Operations Manager of Richmond Gas Works should require the Construction Inspectors to include adequate descriptions of work performed that is captured on the daily pay tickets.*
- *The Deputy Director II for Richmond Gas Works and Streetlights review and revise vague bid language.*
- *We recommend the Operations Manager for the sanitary sewer rehabilitation program work with contractors to implement a more efficient and formalized process to establish and document the correct measurements.*
- *We recommend the Operations Manager for the sanitary sewer rehabilitation program recover the net impact of the identified billing discrepancies from the contractor.*

We also issued other recommendations related to internal controls.



Department of Public Utilities Contract Compliance

Background

During FY2018, the Department of Public Utilities (DPU) managed 148 external contracts. Contract administration is decentralized in the City and is the responsibility of the city agencies and departments. A designated contract administrator within DPU is assigned for each contract. The contract administrator is responsible for managing and monitoring the contract to ensure compliance with terms and conditions.

The below contracts were reviewed as part of this audit. Total FY18 expenditures are noted below for each contract.

- New Gas Installations – \$6.21 million – FY18
- Annual Gas Renewal - \$5.98 million – FY18
- Sewer Inspection and Rehabilitation Services - \$5.35 million - FY18

Commendations

- Overall, it was noted that both contracts were managed effectively with proper accounting and tracking of expenditures.
- Tested contract payments were found to be in agreement with contract pricing and properly supported with minor exceptions.

Needs Improvement

Annual Gas Renewal and New Gas Installation

Finding #1 - Contract Markups

A cost savings could be achieved with the removal of the material markup from the contract and the inclusion of bid lines for off duty officers. DPU is working with Procurement Services to incorporate these changes in the next re-bid anticipated for December 2018. The City paid approximately \$11,000 in mark up costs for contractor purchased materials and the hiring of off-duty officers for the reviewed sample selection.

Finding #2 – Force Accounts

Testing revealed that the force accounts were properly used. However, adequate descriptions of work performed were not always captured on the daily tickets. In some cases, descriptions of the completed work was not captured at all.

Finding #3 – Operator’s Qualification Program

DPU’s annual review of the contractor’s Operator Qualification program was not documented.

Sewer Inspection and Rehabilitation Services Contract

Finding #1 – Measurement Inconsistencies

The auditor could not conclude on the accuracy of the billed quantities for 1% of the reviewed expenditures totaling approximately \$22,458.

Finding #2 – Billing Differences

Two billing errors totaling approximately \$3,678 were identified during testing.

Finding #3 – Project Completion Dates

The two tested projects were not completed by the established and assigned substantial and final completion dates. The projects extended beyond the assigned substantial completion dates between 109-151 calendar days.

Management concurred with 6 of 6 recommendations. We appreciate the cooperation received from management and staff while conducting this audit.

BACKGROUND, OBJECTIVES, SCOPE, METHODOLOGY, MANAGEMENT RESPONSIBILITY and INTERNAL CONTROLS

This audit was conducted in accordance with the Generally Accepted Government Auditing Standards promulgated by the Comptroller General of the United States. Those Standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on the audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on the audit objectives.

BACKGROUND

DPU provides many City services through its various divisions. DPU operates five utilities: natural gas, water, wastewater, storm water, and electric street lighting serving more than 500,000 residential and commercial customers in Richmond and surrounding counties.

During FY2018, DPU managed 148 external contracts. Contract administration is decentralized in the City and is the responsibility of the city agencies and departments. A designated contract administrator within DPU is assigned for each contract. The contract administrator is responsible for managing and monitoring the contract to ensure compliance with terms and conditions. The below contracts were reviewed as a part of this audit. The below expenditures represent payments actually processed and issued in FY2018.

Contract Number	Contract Name	FY18 Expenditures
1400000405	Installation of New Gas Facilities	\$6,217,653
16000015408	Annual Gas Renewal	\$5,981,597
14000000362	Annual Sewer Inspection and Rehabilitation Services	\$5,359,832

OBJECTIVES

The objective of this audit was to evaluate compliance with the deliverables and terms and conditions of the contracts.

SCOPE

All functions, expenses, inspections, construction, repairs, and actions in relation to the selected contracts for fiscal year 2018 and the current environment.

METHODOLOGY

The auditors performed the following procedures to complete this audit:

- Interviewed management and staff;
- Reviewed contract terms and conditions and tested for compliance;
- Reviewed contract files and tested samples of expenditures; and
- Performed site visits and other tests, as deemed necessary.

MANAGEMENT RESPONSIBILITY

City management is responsible for ensuring resources are managed properly and used in compliance with laws and regulations; programs are achieving their objectives; and services are being provided efficiently, effectively, and economically.

INTERNAL CONTROLS

According to the Government Auditing Standards, internal control, in the broadest sense, encompasses the agency's plan, policies, procedures, methods, and processes adopted by management to meet its mission, goals, and objectives. Internal control includes the processes for planning, organizing, directing, and controlling program operations. It also includes systems for measuring, reporting, and monitoring program performance. An effective control structure is one that provides reasonable assurance regarding:

- Efficiency and effectiveness of operations;
- Accurate financial reporting; and
- Compliance with laws and regulations.

Based on the audit test work, the auditors concluded that adequate internal controls are in place for the contracts. Overall, it was noted the contracts were managed effectively with proper accounting and tracking of expenditures. Several improvement opportunities were identified that will further enhance contract management.

FINDINGS and RECOMMENDATIONS

Installation of New Gas Facilities and Gas Renewal Contracts

Background

Contract 1400000405 – Installation of New Gas Facilities

The City entered into this contract to provide the installation of new gas mains, services and facilities within the City of Richmond's gas distribution system, which includes gas mains in the City of Richmond, Henrico, Hanover and Chesterfield Counties. Projects are generated based upon the Department's identified need for new gas mains or the demand for gas. For example, a home owner or developer requests new gas services. The original contract was initiated on January 15, 2013 for \$5.5 million with 4-one year renewal options. The city exercised all of the renewal options and extended the contract twice with the last extension set to end on January 14, 2019. During FY2018, work was conducted for 76 projects totaling approximately \$7.4 million. One of the projects was for the installation of new services, which included various locations. The total represents the dollar value of work conducted during the FY18 service months, which varies from fiscal year amounts depending on payment timing.

Contract 16000015408 – Annual Gas Renewal Services

The City entered into this contract for the renewal and retirement of cast iron and failing gas mains and services within the City of Richmond's gas distribution system, which includes gas mains in the City of Richmond, Henrico, Hanover and Chesterfield Counties. The original contract was initiated on March 15, 2016 for \$13.8 million with 4-one year renewal options. Currently, the City is on its second contract renewal. During FY2018, work was completed for 47 projects totaling

approximately \$5.8 million. The total represents the dollar value of work conducted during the FY18 service months, which varies from fiscal year amounts depending on payment timing.

What Works Well

Contractor Payments

A DPU Construction Inspector is assigned to monitor the projects. The Inspectors are responsible for visiting the project sites daily and generating pay tickets. Daily pay tickets are written to document the work and quantities completed by the contractor. The daily tickets are reviewed and approved by the DPU Trades Superintendent and forwarded to the Construction Assistant to key into the project recap database. The bid line items and quantities of completed work are input in the database to generate a project recap for each project, which is reviewed and approved by the Operations Manager. The project recaps are subtotaled to generate the contractor's estimated monthly payment. DPU's estimated contractor payment is compared to the contractor's estimate and a payment is generated if in agreement. Differences are researched and reconciled prior to issuance of payment.

During FY2018, work totaling approximately \$13.2 million was conducted for both contracts. The auditor reviewed eleven monthly invoices (6 for new gas facilities and 5 for annual renewal) totaling approximately \$1.6 million and noted:

- Billed line items and quantities agreed to the daily pay tickets.
- Line items were billed at the correct bid unit prices.
- Expenditures were adequately supported.
- Contractor's invoices were correctly calculated.
- Formula based calculations (e.g. cubic yards and square feet) were correctly calculated.
- Force accounts were properly used in accordance with the contract specifications.

Drug and Alcohol Testing

All of the contractor's employees involved with the natural gas distribution construction and maintenance operations for the City are required to participate in an anti-drug/drug testing and

alcohol misuse program in accordance with Title 49 of the Code of Federal Regulations, Chapter 1, Part 199 (49 CFR 199). Quarterly drug and alcohol test statistics were forwarded to DPU to demonstrate compliance with these requirements.

Materials Reconciliation

Materials (e.g. pipes) are issued to the contractor for use on the projects. The materials issued to the contractor are keyed into RAPIDS. The materials used are captured on the daily pay tickets. A reconciliation is conducted at the completion of the project to determine if there are any remaining materials that need to be returned to DPU or can be transferred to another project.

Change Orders

Change orders totaling approximately \$8 million were processed to increase the contract value and extend the contract period for the installation of new gas facilities contract to prevent service gaps during the procurement bid process. Also, change orders were processed to add bid line items and increase several existing bid line unit prices for the annual gas renewal contract. The auditor noted that all change orders were properly processed and approved in accordance with the City's Construction Change Order Policy.

Planned Improvement - Automation of Daily Tickets

Currently, the daily pay tickets are manually completed by the DPU Construction Inspectors and keyed into the project recap database by the Construction Assistant. DPU is currently working to automate this process. The DPU Construction Inspectors will be able to electronically create the daily pay tickets in the field and this information will automatically upload into the project recap database. The ticket will be shared with contractor before finalizing. Once the contractor and Inspector are in agreement with the line items, the contractor will electronically sign the ticket. Copies of the tickets will be electronically forwarded to the DPU Operations Center and to the contractor. This new process will improve the efficiency of the daily pay ticket process and eliminate the need for manually keying the ticket details into the recap database. A draft of the pay ticket manual has been created and the Department anticipates this automated process will be implemented within the next six months starting with the annual gas renewal contract.

Needs Improvement

Finding #1 - Contract Markups

According to the Deputy Director II of Richmond Gas Works and Streetlights, the materials markup was removed from the annual gas renewal contract when it was re-bid in 2015. This language is planned to be removed from the installation of new gas facilities specifications in this year's upcoming re-bid.

A cost savings could be achieved with the removal of the material markup from the contract and the inclusion of bid lines for off duty officers. DPU is working with Procurement Services to incorporate these changes in the next re-bid anticipated for December 2018. The City paid approximately \$11,000 in mark up costs for contractor purchased materials and the hiring of off-duty officers for the reviewed sample selection.

Recommendations:

- 1. We recommend the Deputy Director II of Richmond Gas Works and Streetlights continue to work with Procurement Services to remove the markup language from the specifications.***

Finding #2 – Force Accounts

We tested 374 pay tickets from the annual renewal and new gas installation contracts of which 180 tickets included force account payments totaling approximately \$157,000. Force accounts are used to pay for required work that is not covered by a specific bid line item and as outlined in the bid specifications. Use of force accounts must be approved by the Operations Manager. The Construction Inspector should include the below information on the daily pay tickets.

- force account line item;
- applicable unit of measure (e.g. hourly or daily); and
- description of completed work.

Testing ultimately revealed that the force accounts were properly used. However, adequate descriptions of work performed were not always captured on the daily tickets. In some cases, descriptions of the completed work was not captured at all. It was also noted that some of the

contract language is vague, which could lead to misinterpretation of when to use a force account or bid line item. This resulted in the auditors meeting with the DPU staff on several occasions to gain an understanding of what work was completed and why the force accounts were used.

If adequate descriptions of work completed are not included on the daily pay tickets, it may be difficult for the Operations Manager to determine if the accounts were properly used and/or to explain why the accounts were used if questions arise after the fact. Also, adequate descriptions of completed work can be used by management to identify patterns of use to determine if additional bid lines need to be added to the contract. Improper use of force accounts may result in additional costs being charged to the project.

Recommendations:

- 2. We recommend the Operations Manager for Richmond Gas Works require the Construction Inspectors to include adequate descriptions of work performed on the daily pay tickets.*
- 3. We recommend the Deputy Director II for Richmond Gas Works and Streetlights review and revise vague bid language.*

Finding #3 – Contractor's Operator Qualification Program

Contractors working on any gas mains and services are required to complete all necessary Operator Qualifications (OQ) as required by the Department of Transportation regulations, the City of Richmond and in accordance with a written OQ plan. The contractor can only use competent and skilled workmen for the performance of all work on the natural gas distribution system. The Contractor is required to provide a current copy of the company's OQ Plan to the City prior to contract award. The contractor must also furnish continuous employee qualifications for all employees when requested by the City and for new employees prior to performing work.

Per DPU staff, the contractor's OQ Plan is reviewed annually to ensure it is current and covers all performed tasks. Also, it was indicated that a sample of contractor employees' training records are reviewed for compliance. However, the annual review of the contractor's OQ program was not documented. As such, the City lacks evidence of its review of the contractor's program. Per

the Deputy Director II for Richmond Gas Works and Streetlights, an official standardized review process was not in place during the audit scope but a standardized checklist is being developed and will be implemented.

Recommendation:

- 4. We recommend the Deputy Director II for Richmond Gas Works and Streetlights continue with efforts to develop and implement a standardized review process and ensure the annual reviews are documented and retained.***

Annual Sewer Inspection and Rehabilitation Services Contract

Background

The City entered into this contract to provide sewer inspections, repairs and rehabilitation services. The original contract was initiated on September 15, 2012 for \$5 million with 4-one year renewal options. The City exercised all of the renewal options and extended the contract twice with the last extension ending on May 15, 2018. Both programmed and un-programmed (e.g. emergencies) work is completed under this contract. Project needs are initially defined in the Collection System Master Plan. Un-programmed work requirements are generally defined when the DPU maintenance group responds to complaints and determine capital improvements are needed or the scope of work is larger than what the maintenance group performs. Also, work is performed to address emergencies. During FY2018, work was performed for 29 projects totaling approximately \$5.4 million.

This contract was managed by a third party contract management firm (CM). The CM was responsible for managing the projects from initiation to close out. The CM drafted the scope of work, cost estimates and maps for each project and submitted to DPU for review and approval. The CM was also responsible for monitoring and inspecting the project to ensure compliance, conducting progress meetings, and reviewing and verifying the accuracy of billings.

What Works Well

Contractor Payments

The CM Construction Inspectors conducted site visits and documented completed work in daily construction reports. They also reviewed the sewer cleaning and rehabilitation videos submitted by the contractor to validate that work was adequately completed. The completed work and quantities were keyed into the CM's project management system. Per the CM, this information was compared to the contractor's completed work and quantities during the monthly payment reconciliation process. Any identified discrepancies were re-measured and reconciled prior to invoices being generated. The invoices were approved by the contractor and the CM and then forwarded to the City for approval and payment. The CM's signature indicated that they confirmed the quantities, pay line items and quality of completed work and recommended payment for invoice.

During FY2018, work was performed for 29 projects totaling approximately \$5.4 million. The auditor reviewed and tested two projects consisting of 16 invoices totaling approximately \$1.6 million and noted:

- 99% of the reviewed expenditures agreed to supporting documentation (e.g. daily construction reports, rehabilitation checklists, etc.);
- Bid line items were generally billed at the correct unit price. Several bid lines were billed at lower unit prices than those included in the bid document;
- 100% of the reviewed expenditures agreed to RAPIDS posting; and
- 100% of the contractor's invoices were calculated correctly.

File Documentation

The reviewed projects files were well documented. The provided electronic files contained documentation from the project initiation to close out. The files contained documentation such as:

- Executed assignment letter – The letter contains the project scope of work, cost estimates and project completion timeframes. The contractor signs and dates the letter indicating acceptance of the project assignment.
- Authorized purchase orders and applicable increases
- Fieldwork directives
- Meeting minutes – A preconstruction meeting is held to discuss the project scope work and requirements. Also, status update meetings are held to discuss project's progress.
- Daily construction (inspection) reports – Documents the work performed by the contractor including bid line numbers and quantities.
- Sewer cleaning and rehabilitation videos – Videos are used by the CM to validate that the work is adequately completed.
- Vendor invoices – Packages contained a detailed listing of all of the completed work and corresponding quantities for the projects.
- Closeout memo and submittals

Needs Improvement

Finding #1 - Measurement Inconsistencies

The auditor reviewed and tested sixteen invoices totaling approximately \$1.6 million. The majority (99%) of the reviewed expenditures were traced and agreed to supporting documentation. However, the auditor could not conclude on the accuracy of the billed quantities for the remaining 1% of the reviewed expenditures totaling approximately \$22,458. The billed line item quantities were different from what was captured in the daily construction reports. In some cases, the billed items were not documented in the daily reports at all. Per responses from the CM, the differences were attributed to following:

- The Construction Inspectors are not on site with the contractor at all times. The daily construction reports only contain the work that the inspectors physically observe. The videos submitted by the contractor are used to confirm the work is adequately completed when the inspectors are not onsite.

- Inconsistencies in the recorded quantities occurred. The inconsistencies in the recorded quantities resulted from different field inspectors observing and documenting the work and distances being measured independently on multiple occasions. As a result of the inconsistencies, measurements were re-verified in the field and corrections were made during the payment application review process. The corrections were keyed into the CM's project management system.

Per the CM, in order to address the inconsistencies, a new process was implemented whereby the measurements are performed at the beginning of the project and agreed to in writing by the contractor and the CM. A sample of the new process was provided. The auditor noted that the process could be improved and made more efficient. The contractor and inspector are measuring the segments independently. The contractor submits proposed lengths for the line segments and inspector responds back with acceptable measurements. It would be more efficient if both the contractor and inspector complete the measurements together. Also, a more formalized document should be implemented to document the measurements and have both the contractor and the inspector sign off.

Recommendation:

- 5. We recommend the Operations Manager for the sanitary sewer rehabilitation program work with contractors to implement a more efficient and formalized process to establish and document the correct measurements.***

Finding #2 - Billing Differences

The below billing errors totaling \$3,677.52 were identified during testing.

- The linear feet (LF) of pipe cleaning, inspecting and rehabilitation for line segment 21 were overstated by 48' each resulting in an overbilling of \$4,048.32. DPU cited human error as the inspector measured to the wrong manhole.

- The LF of pipe cleaning, inspecting and rehabilitation for line segment 88 were under billed by 5 feet each resulting in an under billing of \$370.80. Per the CM, 419 LF of pipe should have been paid. However, 414 LF was paid in error.

Recommendation:

6. We recommend the Operations Manager for the sanitary sewer rehabilitation recover the net impact of the identified billing discrepancies from the contractor.

Finding #3 - Project Completion Dates

Projects assigned to the contractor were required to be substantially completed and finalized within the specified number of calendar days from the notice to proceed date. Projects LIL1803 and LIL1809 were reviewed and tested for completion timeliness. Below is an overview of each project scope of work.

Project	Scope of Work	Location	Cost Est*	Actual Cost~
LIL1803	Inspection, cleaning and rehabilitation of approximately 5800 LF of 12" – 48" diameter circular and egg-shaped sanitary sewers, and manhole rehabilitation	Park Ave N. Stafford Ave Grove Ave Rowland St	\$1.2 mil	\$575,694
LIL1809	Inspection, cleaning and rehabilitation of approximately 8600 LF of 12" – 24" diameter circular sanitary sewers	Between Byrd/Maymont Park and Hollywood Cemetery Between Downtown Expressway and Riverside Cemetery	\$1.03 mil	\$990,609
* Rounded and excluded contingency				
~Project/work was removed from scope				

Per the executed assignment letters, Project 1809 Phase 1 and Phase 2 were required to be substantially completed within 90 calendar days and finally completed within 120 calendar days from the notice to proceed date. Project 1803 was required to be substantially completed within 120 calendar days and finalized within 150 calendar days from the notice to proceed date. Based upon testing, it was noted that these projects were not completed within the established and assigned completion dates. As noted below, the projects extended beyond the substantial completion dates between 109-151 calendar days. Project 1803 has not been finalized as the contractor is awaiting a decision from DPU regarding what to do with materials that were purchased for several line segments for which work was cancelled by the City.

Project #	Substantial Completion		Final Completion		Number of Days Beyond Completion	
	<i>Required</i>	<i>Actual</i>	<i>Required</i>	<i>Actual</i>	<i>Substantial</i>	<i>Final</i>
LIL1803	1/10/2018	5/2/2018	2/10/2018	-	112	-
LIL1809 Phase 1	1/7/2018	6/7/2018	2/7/2018	7/7/2018	151	150
LIL1809 Phase 2	2/18/2018	6/7/2018	3/20/2018	7/7/2018	109	109

Per DPU and the auditor's review of the daily construction reports, the delays were attributed to the below factors:

- Generally, the projects were not completed by the established timeframes as the contractor was working on multiple active projects at the same time. The sewer inspection and rehabilitation services contract was originally awarded to multiple vendors. However, the contractors were not renewed throughout the years due to performance issues or simply requesting not to be renewed. As a result, there was only one contractor during the audit scope. The most recent contract, for which the intent to award was posted in February 2018, was awarded to two contractors. Assigning work to multiple contractors should help alleviate some of the delays.
- The contractor was unable to work due to inclement weather. The daily construction reports noted at least 10 inclement weather (snow/rain) days where the contractor was unable to work.

- DPU requested the contractor to shift work priorities to address emergencies and requests due to complaints. According to DPU staff, assignments are reprioritized periodically to address programmed and un-programmed work (i.e., emergency and complaint response work), with the overall goal of maximizing production across all projects to meet the City's goals. For example, five emergencies/complaint driven (un-programmed) projects were added to the August 2018 schedule.

Time allocated for the completion of work is of the essence. Failure to complete the projects by the established completion dates may result in a backlog of repairs, which could create safety and health hazards for the City if there is a sewer failure. Per DPU staff, the award of the most recent contract (awarded in February 2018) to multiple vendors should alleviate some of the delays. However, some delays are inherent given the reprioritization of assignments. As such a recommendation will not be issued.

APPENDIX A: MANAGEMENT RESPONSE FORM
2019-06 DPU Contract Compliance audit

#	RECOMMENDATION	CONCUR Y/N	ACTION STEPS
1	We recommend the Deputy Director II of Richmond Gas Works and Streetlights work with Procurement Services to remove the markup language from the specifications.	y	Richmond Gas Works is in the process of rebidding the Installation of New Gas Facilities and the verbiage for markup of material will be removed.
	TITLE OF RESPONSIBLE PERSON		TARGET DATE
	Deputy Director II		12/15/18
	IF IN PROGRESS, EXPLAIN ANY DELAYS		IF IMPLEMENTED, DETAILS OF IMPLEMENTATION
			Bid specifications for markup of material purchase by contractor will be removed. If the contractor has to purchase material for a Richmond Gas Works project the contractor will be reimbursed for the cost of the material and any taxes paid.
#	RECOMMENDATION	CONCUR Y/N	ACTION STEPS
2	We recommend the Operations Manager for Richmond Gas require the Construction Inspectors to include adequate descriptions of work performed on the daily pay tickets.	y	Richmond Gas Works Constructions Inspector III's have been informed to include detailed descriptions of all Force Account work performed by the contractor.
	TITLE OF RESPONSIBLE PERSON		TARGET DATE
	Operations Manager		Immediately
	IF IN PROGRESS, EXPLAIN ANY DELAYS		IF IMPLEMENTED, DETAILS OF IMPLEMENTATION
			All Construction Inspector III's assigned to Richmond Gas Works have been informed to include detailed description of all Force Account work performed by the contractor.
#	RECOMMENDATION	CONCUR Y/N	ACTION STEPS
3	We recommend the Deputy Director II for Richmond Gas Works and Streetlights review and revise vague bid language.	Y	Richmond Gas Works is in the process of rebidding the Installation of New Gas Facilities contract detailed language will be included in the new contract.
	TITLE OF RESPONSIBLE PERSON		TARGET DATE
	Deputy Director II		12/15/18
	IF IN PROGRESS, EXPLAIN ANY DELAYS		IF IMPLEMENTED, DETAILS OF IMPLEMENTATION
			In the new bid specifications Richmond Gas Works will explain how a tie-in hole are paid for a new gas service installations, and the difference between hand excavation and trenching when mechanized equipment cannot be utilized.

APPENDIX A: MANAGEMENT RESPONSE FORM

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#	RECOMMENDATION	CONCUR Y/N	ACTION STEPS
4	We recommend the Deputy Director II for Richmond Gas Works and Streetlights continue with efforts to develop and implement a standardized review process and ensure the annual reviews are documented and retained.	Y	Deputy Director II shall require the Senior Training Specialist complete an audit report of the contractors Operators Qualification program during the annual inspection.
	TITLE OF RESPONSIBLE PERSON		TARGET DATE
	Deputy Director II		1-Feb-19
	IF IN PROGRESS, EXPLAIN ANY DELAYS		IF IMPLEMENTED, DETAILS OF IMPLEMENTATION
			Deputy Director II has created an Annual Inspection form for the Senior Training Specialist to utilize during his/her audit of the contractors Operator Qualification program. January 2019 the Senior Training Specialist shall contact the contractor to schedule a date for their annual audit their OQ plan.
#	RECOMMENDATION	CONCUR Y/N	ACTION STEPS
5	We recommend the Operations Manager for the sanitary sewer rehabilitation program work with contractors to implement a more efficient and formalized process to establish and document the correct measurements.	Y	A Standard Operating Procedure has been developed as the protocol for obtaining accurate and consistent measurements for sewer rehabilitation work. The City's Construction Inspector and the Contractor's Superintendent will wheel measure from center of manhole to center of manhole along each line segment in the assignment, agreeing on the footages to be used for Cleaning, CCTV and CIPP lining.
	TITLE OF RESPONSIBLE PERSON		TARGET DATE
	Operations Manager		10-Nov-18
	IF IN PROGRESS, EXPLAIN ANY DELAYS		IF IMPLEMENTED, DETAILS OF IMPLEMENTATION
#	RECOMMENDATION	CONCUR Y/N	ACTION STEPS
6	We recommend the Operations Manager for the sanitary sewer rehabilitation program recover the net impact of the identified billing discrepancies from the contractor.	Y	There are several instances throughout the contract where the Contractor will perform tasks and not bill the City for them. A thorough review of assignments will take place to obtain fully any overpayments or underpayments made and restitution either to the City or to the contractor will be made.
	TITLE OF RESPONSIBLE PERSON		TARGET DATE
	Operations Manager		1-Dec-18

APPENDIX A: MANAGEMENT RESPONSE FORM

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	IF IN PROGRESS, EXPLAIN ANY DELAYS	IF IMPLEMENTED, DETAILS OF IMPLEMENTATION
		<p>The total overpayments identified during the audit on Assignment 1809 amount to a credit of <\$4,345.56> to the City's benefit. There were also dye tests performed by the contractor, identified during the audit, in which the contractor was not paid for each dye test performed. The total underpayment for these dye tests equals \$5,955.30. The net total of the overpayments and underpayments on Assignment 1809 identified during the audit results in an additional payment from the City to the Contractor in the amount of \$1,609.74.</p> <p>The underpayments identified during the audit on Assignment 1803 include 13 feet of 24-inch diameter CIPP rehabilitation in the amount of \$1,402.83 (City owes contractor). In addition, the audit identified manhole work that was performed and never paid for by the City. This amounts to 58 vertical feet of initial cleaning and cementitious preparatory work that was done prior to the City canceling the work. We will have to obtain a price from the contractor for the cost of the work performed. This is because the entire contract unit price item work was only partially completed.</p>