



Office of the City Controller
**HOUSTON PUBLIC WORKS
DEPARTMENT**
Follow-Up Audit



Chris Brown
City Controller

Report # 2021-03

Courtney Smith
City Auditor



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CITY OF HOUSTON
TEXAS**

CHRIS B. BROWN

August 17, 2020

The Honorable Sylvester Turner, Mayor

**SUBJECT: REPORT #2021-03
HOUSTON PUBLIC WORKS DEPARTMENT (HPW) – FOLLOW-UP AUDIT**

Mayor Turner:

The Office of the City Controller's Audit Division has completed follow-up procedures on remediation efforts performed by the Houston Public Works Department management, as they related to *Audit Report #2014-04*, titled, "*Performance Audit of Water Meters and Electronic Radio Transmitters (ERT)*". As part of providing independent and objective assurance services related to efficient and effective performance, compliance, and safeguarding of assets, we also perform follow-up procedures to ensure that corrective actions are taken related to issues reported from previous audits.¹

The Audit Division Follow-Up Audit Process uses a risk-based approach, which contains two primary components:

- Management Status Updates; and
- Audit Testing/Verification

Based on the procedures performed above, we believe that we have obtained sufficient and appropriate evidence to adequately support the conclusions provided below as required by professional auditing standards.²

A total of six (6) findings were issued under Audit Report 2014-04; one (1) was assessed a "Low" risk rating, thus did not require follow up procedures, two (2) were closed in a previous Follow-up Audit Report (2016-10), leaving only three (3) open. Compliance has been achieved with the remediation and closing of two (2) findings and one (1) finding will remain open, pending implementation of procedures by management to adequately remediate.

¹ IIA Standard 2500 Implementation Guidance – stresses the importance of having a process that "... captures the relevant observations, agreed corrective action, and current status."

GAGAS 1.21, 6.11, 7.13, 8.30, and 9.08

² See Exhibit 1 for the Detailed Remediation Assessment



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- In reviewing the department's remediation processes associated with the three (3) findings, we concluded the overall assessment to be **Adequate**.

We would like to thank the Houston Public Works Department for their cooperation during the follow-up audit process.

Respectfully submitted,

Chris B. Brown
City Controller

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Background

The Office of the City Controller’s Audit Division (The Division) has completed its FY2020 follow-up procedures related to remediation efforts performed by the management of the Houston Public Works Department (HPW), as they relate to Audit Report #2014-04, titled, “Performance Audit of Water Meters and Electronic Radio Transmitters (ERT)”. As part of providing independent and objective assurance services related to efficient and effective performance, compliance, and safeguarding of assets, we also perform follow-up procedures to ensure that corrective actions are taken related to issues reported from previous audits.¹

Audit Scope and Objectives

The objectives of our Follow-Up Procedures were to determine:

1. The Status for each open item; and
2. The adequacy of the department’s remediation process in place to resolve its universe of open findings.

Procedures Performed

Audit procedures performed to meet the audit objectives and provide a basis for our conclusions were as follows:

- Obtained, reviewed and assessed management’s status updates to open findings;
- Determined the findings for which management’s status updates indicated remediation;
- Determined and requested the documentation necessary to support the findings status reported by management; and
- Reviewed supporting documentation and other evidence provided for sufficiency and appropriateness.

¹ IIA Standard 2500 Implementation Guidance – stresses the importance of having a process that “...captures the relevant observations, agreed corrective action, and current status.”

Conclusions

Based on the procedures performed, we believe that we have obtained sufficient and appropriate evidence to adequately support the conclusions provided below as required by professional auditing standards:

CONCLUSION 1 - (AUDIT OBJECTIVE 1)

There were a total of six (6) findings issued under Audit Report 2014-04 that were the responsibility of HPW; one (1) was assessed a Low rating and therefore follow up was not required, two were previously closed in follow up audit report 2016-10, leaving three (3) open. Two (2) findings were remediated and closed based on actions taken by management to address each. One (1) finding will remain open as management identifies additional resources to mitigate the risk. See Exhibit 1 for the detailed remediation assessment.

CONCLUSION 2 - (AUDIT OBJECTIVE 2)

In reviewing the department's remediation efforts associated with the three findings, we concluded the overall assessment to be **Adequate**.

Follow-up Approach

The Division's Audit Follow-Up Process utilizes a risk-based approach, which contains two primary components:

- Management Status Updates
- Audit Test/Verification

MANAGEMENT STATUS UPDATES:

Prior to the issuance of audit reports, findings are ranked according to three levels of risk to the City as a whole (High, Medium, and Low). Our continuous follow-up process includes sending requests for status updates related to management's progress toward the remediation of open findings. Management provides status updates through an online portal that alerts the Division when received. This information is then assessed by the follow-up auditor, who considers (1) responsiveness to the original issue and (2) remediation of the issue.

FIELDWORK/TESTING VERIFICATION:

A status update which indicates that a finding has been remediated is tested/verified by the follow-up auditor prior to being closed.

The information received through management status updates is used as a basis for follow-up testing. Additional supporting information is gathered by the follow-up auditor, if it is needed to provide sufficient and appropriate evidence to achieve our objectives. Once the testing/verification of a department's findings has been completed, the department's remediation process is then assessed (Adequate or Inadequate). A rating of Adequate indicates the department has processes in place to sufficiently monitor and address issues identified. The department demonstrates this by having either remediated (if the finding is Closed) or is exhibiting progress in the remediation efforts (if the status is Ongoing). An Inadequate rating is assessed when the status of the findings is not as reported by management and/or the issues have not been addressed as stated in a status update.

Audit Standards

We conducted Follow-Up Procedures in accordance with Generally Accepted Government Auditing Standards (GAGAS) issued by the Government Accountability Office (GAO) and The International Standards for the Professional Practice of Internal Auditing, as promulgated by The Institute of Internal Auditors. Those standards require that we plan and perform the audit to obtain sufficient and appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Acknowledgement

We would like to thank the Houston Public Works Department for their proactive approach to risk management and their cooperation during our follow-up process.

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Office of the City Controller - Audit Division
Project: 2019-12: FY2019 Follow-Up HPW
Houston Public Works - FY2020 Follow-Up Procedures

Exhibit 1 - Detailed Remediation Assessment, FY2020 Audit Follow-Up Procedures

Audit Report Number	Finding Title	Finding	Management's Status Update	Conclusion	
				Ongoing/ Closed	Remediation Process
2014-04	Inefficient Field Technician ERT/Meter Reread Process	<p>There are a proportionally high amount of repeated manual rereads (three or more rereads for the same account).</p> <p>No reports showing rereads to specific accounts with high manual rereads.</p> <p>No management reports or timely review of these reports from the Advantage system showing technician field notes indicating faulty equipment identified while on site performing the re-reads.</p>	<p>Updated management Response 12/30/2019:</p> <p>Technicians within Customer Account Services' (CAS) Meter Operations Branch work in three functional groups with each group focused on distinct business processes; i.e., Large (Enterprise) Meter Maintenance, Meter Reading, and Small (Light) Meter Maintenance.</p> <p>Remediation of ERTs with consecutive manual reads (rereads) are managed by the Small (Light) Meter Maintenance team. Small (Light) Meter Maintenance leverages the MES-M404-Monthly Report as an internal control to assure operational effectiveness in the remediation strategy.</p> <p>While internal controls support effectiveness objectives, significant improvement in business process efficiency can only be realized when critical business challenges are addressed; i.e., staffing levels and aging infrastructure.</p>	Ongoing- This finding will remain open. The Audit Division obtained and reviewed the MES-M404 Monthly Report. However, testing was not feasible, as the results would be negative. HPW has requested both internal and external resources to address staffing over the next few years and has implemented a Planning and Scheduling group to monitor the productivity of their field technicians. HPW is in the process of reviewing bid proposals for a new Automated Metering Infrastructure (AMI) that will reduce the failure rates of devices on their existing system.	Inadequate
2014-04	Inconsistent Performance of Field Tech Site Visit Procedures	<p>Based on reviewing the actions noted by the Techs in the Transaction screens in the Water Customer Information System, the Techs did not always perform the tasks as stated in the Procedures.</p>	<p>Updated Response December 30, 2019:</p> <p>CAS agrees that Field Technicians should perform all required steps at the site; however, only those steps required for the work order type assigned. The different work order types are Billing, Maintenance, Collections, and Inspection. The four work order types have disparate task requirements; therefore, the steps performed by the Field Technician are determined by the work order type.</p> <p>Effective September 1, 2016, the "20-step process" referred to in the 2014 audit was superseded by the Combined Field Operations Manual. The updated Manual details the required steps for each type of work order.</p> <p>While assigning work by order type may result in multiple site visits, specialization of tasks enables Field Technicians to develop and maintain the necessary skills and focus to achieve maximum task efficiency and effectiveness while ensuring CAS achieves its operational priority of timely and accurate meter reads for billing.</p> <p>Also, to ensure effective utilization of staff, P&S has the responsibility to properly assign all work based on available resources and equipment. Secondly, P&S tracks and monitors the daily productivity of each field technician to ensure maximum effectiveness from available resources.</p>	Closed- This finding has been closed. The Audit Division obtained and reviewed the Combined Field Operations Manual and tested a sample of completed work orders, in which 97% of them were completed, as required. Therefore, the Audit Division was able to confirm that Management's processes are sufficient to remediate this audit finding.	Adequate

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Houston Public Works - FY2020 Follow-Up Procedures

Audit Report Number	Finding Title	Finding	Management's Status Update	Conclusion	
				Ongoing/ Closed	Remediation Process
2014-04	Impact of Improper or Inaccurate Estimates	Of the 14 accounts adjusted, 7 accounts (50%) received adjusted billings that were 75% higher than the estimated billing they received prior to their meter repair. The total monetary impact to the customers was \$17,380.62.	<p>Management Updated Response December 30, 2019:</p> <p>The methodology for calculating the system average consumption to be used for a meter reading estimate is the same for all estimate types; i.e., weather, damaged meter, can't locate, inaccessible, covered, etc.</p> <p>CAS evaluated the accuracy of the estimate methodology using OVR corrections using a sample of 50 residential accounts adjusted in November 2019 as a result of previous estimated bill(s). The randomly selected accounts had been adjusted between the range of 1 to 22 months. The analysis shows that there is a nominal difference between the consumption used for the estimates versus the consumption applied during the correction.</p> <p>Additionally, in the July 2014 timeframe, CAS reviewed Ordinance 47-73 (c) as it relates to damaged meter corrections. The Ordinance states in part, "all meters must meet the accuracy test guidelines of the American Water Works Association. The department shall adjust customer bills for up to 24 months on the basis of results of tests performed by the department. If the meter or register is defective, the department shall repair or replace it. If a meter is damaged so that it cannot be tested, the customer's account may be adjusted for up to 24 months based on the average usage."</p> <p>As a result, effective 08/01/2014, CAS adopted the Auditor's recommendation and modified its Damaged Meter Correction (DEM 07-01-2007 to DEM-08-01-2014) policy. With few exceptions, the new policy eliminated a retroactive correction on damaged meter accounts once the meter was repaired or replaced. Exceptions occurred only in those cases in which the original correction was modified following an administrative review/hearing.</p>	Closed- This finding has been closed. The Audit Division obtained and reviewed The modified Damaged meter Correction policy that eliminated the retroactive correction on damaged meter accounts and back billing. A review of the Update on the Estimated Read Elimination project shows only 26 accounts out of the original 839 remain uncorrected; Six (6) are vacant lots; ten (10) are customer issues requiring Legal support; and ten (10) require coordination with other departments. Therefore, the Audit Division was able to confirm Management's processes are sufficient to remediate this audit finding.	Adequate

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Audit reports are available at:

<http://www.houstontx.gov/controller/audit/auditreports.html>