

REPORT TO THE CITY COUNCIL BY THE CITY INTERNAL AUDITOR

AUDIT OF THE DEPARTMENT OF OPERATIONAL SERVICES WATER & SEWERAGE/CUSTOMER SERVICE DIVISION

INTERNAL AUDIT REPORT SR650003-01

MAY 30, 2003





May 30, 2003

Councilman Monty Walford, Chairman
Shreveport City Council

Dear Councilman Walford:

Subject: IAR SR650003-01 -- Audit of the Department of Operational Services, Water and Sewerage/Customer Service Division

Attached please find the report mentioned above. Management comments are included in the report.

Sincerely,

Leanis L. Graham, CPA, CIA
City Internal Auditor

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**EXECUTIVE SUMMARY
AUDIT OF THE
DEPARTMENT OF OPERATIONAL SERVICES
WATER AND SEWERAGE/CUSTOMER SERVICE DIVISION
INTERNAL AUDIT REPORT (IAR) SR650003-01**

The purpose of the executive summary is to convey in capsule form the significant issues of the audit report. The executive summary is a vehicle for reviewing the report and should only be used in conjunction with the entire report.

INTRODUCTION

The Water and Sewerage/Customer Service Division is responsible for managing approximately 65,000 residential water meters installed throughout the City. Upon our initiation of fieldwork on this project, the Customer Service Office had administrative responsibility over all personnel associated with the entire Meter Shop Operations function. This responsibility entailed overseeing all activities performed by said personnel pertaining to the procurement, installation, maintenance, and removal of water meter assets in addition to recording and reporting monthly usage readings. During September, 2002, administrative jurisdiction over service technician operations was reassigned to the Field Operations Division. Consequently, service personnel formerly assigned to the Meter Shop Operations function were integrated into work crews comprised of *“specialized”* technicians.

OVERVIEW OF SIGNIFICANT ISSUES

Based on the results of our audit, we concluded that the current system of control was in immediate need of attention. We believe that management could enhance the control environment by addressing the following:

Controls over water meters in stock and/or awaiting disposition were in need of management attention. Also, accountability practices over the issuance of water meters to installers were in need of improvement. In addition, written procedural policies and guidelines had not been officially adopted. Finally, provisions had not been established to ensure that revenues received for water service accurately included all water meters installed throughout the City.

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**AUDIT OF THE
DEPARTMENT OF OPERATIONAL SERVICES
WATER AND SEWERAGE/CUSTOMER SERVICE DIVISION
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OBJECTIVE

We have completed a limited review of Meter Shop activities conducted by the Water and Sewerage Division. Our objective was to determine the efficiency and effectiveness of controls in effect to properly control water meter inventory resources.

SCOPE AND METHODOLOGY

Fieldwork was performed in accordance with applicable generally accepted governmental auditing standards as defined in Operating Instruction A.55 of the Internal Audit Office Operating Instructions Manual. Our review was limited to evaluating the general controls surrounding the specific issues addressed. We reviewed pertinent documents and held discussions with operating personnel, as necessary, consistent with our objective.

BACKGROUND

The Water and Sewerage/Customer Service Division is responsible for managing approximately 65,000 residential water meters installed throughout the City. Upon our initiation of fieldwork on this project, the Customer Service Office had administrative responsibility over all personnel associated with the entire Meter Shop Operations function. This responsibility entailed overseeing all activities performed by said personnel pertaining to the procurement, installation, maintenance, and removal of water meter assets in addition to recording and reporting monthly usage readings. During September, 2002, administrative jurisdiction over service technician operations was reassigned to the Field Operations Division. Consequently, service personnel formerly assigned to the Meter Shop Operations function were integrated into work crews comprised of "*specialized*" technicians.

Our work resulted from a *Fraud Hotline* allegation stating that controls over water meters and related supplies were ineffective and subject to pilferage.

CONCLUSIONS/FINDINGS/RECOMMENDATIONS

Controls over water meters in stock and/or awaiting disposition were in need of management attention. Also, accountability practices over the issuance of water

meters to installers were in need of improvement. In addition, written procedural policies and guidelines had not been officially adopted. Finally, provisions had not been established to ensure that revenues received for water service accurately included all water meters installed throughout the City.

1. Inadequate Controls Over Unused Water Meters

Background: Water meters available for installation are stocked in a Field Operations Division warehouse and accounted for via computer records. Related usage activity is updated accordingly when individual meters are issued to service technicians for eventual residential/commercial installation. When the latter occurs, technicians are required to complete applicable work orders indicating the physical address and location where and when serially-numbered meters were installed. Ideally, and to ensure the integrity of inventory data, management should be able to establish the status and/or location of all water meters at any given time. The latter requires strict accuracy of data contained in the computer system regarding installed assets, factual information regarding the status of meters awaiting installation, and the timely completion by service technicians of applicable work orders supporting installation activities. These actions, when performed as described, enable management to maintain accurate and reliable inventory data on all water meters; whether awaiting installation or in service.

Criteria: Adequate inventory discipline requires positive control over water meter assets at all times. Inventory control records must depict current information regarding the availability and location of all assets, including those awaiting maintenance or other disposition and those entrusted to service personnel for future installation. Proper inventory control discipline requires that withdrawal of warehouse assets be supported by properly completed requisitions submitted with supervisory approval. Furthermore, water meters issued to service technicians require adequate accountability controls and safeguards until installed.

Condition: Accountability for water meters issued to individual installers was inadequate.

- ▶ Technical personnel requisitioned and maintained in their service vehicles various quantities of water meters and related parts for future service needs. We noted that water meter withdrawals from the warehouse and subsequent issues to installers were not properly documented and/or approved by supervisory personnel.
- ▶ There was no system in place to periodically verify accountability over unused water meters issued to individual installers. Additionally, there was no system to reconcile work order activity with related water meter usage.

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Effect:

- ▶ Possible misuse or misappropriation of water meters.
- ▶ Exposure to pilferage and/or misappropriation of water meter assets.
- ▶ Loss of visibility over assets.
- ▶ Lack of proper accountability over water meter assets.

Cause: Deviation from normal inventory control practices coupled with sometimes incorrect computer data.

Recommendation: The Assistant Director, Department of Operational Services, should take appropriate action to require positive control over all water meter assets awaiting installation.

- ▶ Consideration should be given to requiring adequate documentation that contains supervisory approval of all water meter requisitions. Applicable operating guidelines should provide for service technicians to submit applicable work order documents to data entry personnel without delay.
- ▶ Management should ensure that computer data regarding unused water meters issued to service personnel is accurate and reliable. Accountability for meters entrusted to service technicians should be verified periodically by generating a report from the system that will enable operating personnel to accurately verify inventory balances on a periodic basis.

Management Plan of Action: In September 2002, a Maintenance Specialist II was hired to oversee the physical meter inventory and maintenance of the meters.

Water meters are receipted to specific unit numbers. This information is recorded within the meter inventory system. Each work order must match the assigned unit number and service address in order to post it. Incorrect details flag the CSR and will not allow the work order to be updated.

The Zone Manager inventories each vehicle on Friday and reconciles the Meter Unit Inventory on the following Monday. Each Thursday a meeting is held with the Zone Managers and System Control Manager to review the work process. On Thursday, May 1, 2003, based on the recommendation of Internal Audit, a form was designed and implemented requiring the Zone Manager to sign off on all requisitioned meters to restock trucks.

2. Unreliable Accountability Over Number of Water Meters Installed

Criteria: For reporting and budgeting purposes, responsible personnel must be informed as to the exact number of water meters installed throughout the City and correlate that data with the number of customers being served.

Condition: An accounting of the exact number of residential water meters installed throughout the City and related customers receiving water service may not be accurately known. Although statistics were available on the number of water meters read, there was no readily available data on the number of water meters installed. Review of statistical data maintained by the Finance Department's Revenue Division regarding water meter readings for calendar year 2001 showed fluctuations in the number of readings from one month to another ranging from as much as -10.9% to +13.3 %. Fluctuations were attributed to normal service activities; disconnects and new service connections.

Another problem noted was that of occasionally finding in the computer system a given water meter installed at more than one address.

Finally, we noted that the related water meter reading contract does not include provisions for ensuring that each and every meter installed throughout the City is identified during reading operations.

Effect:

- ▶ Inability to accurately account for all meters installed throughout the City.
- ▶ Uncertainty regarding the accuracy of related revenue.
- ▶ Possible loss of revenue.

Cause:

- ▶ Pinpointing the exact location of the installed meter at every address was sometimes a problem.
- ▶ Reliance on invalid data.

Recommendation: In order to ascertain an accurate accounting of the number of water meters installed, the Assistant Director, Department of Operational Services, should:

- ▶ Take the necessary actions to ensure an accurate and proper accountability for all water meters installed throughout the City and update computer records accordingly.

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- ▶ Capitalize on the valuable information received via an exception report currently being produced by the computer system (*“Reading Service-Verify Address Against Meter Inventory”*). This report identifies given water meters installed at more than one address. To maintain the integrity of installed meter inventory data, discrepancies noted in these reports should be resolved without delay.

Management Plan of Action: Prior to the summer of 2001, generic work orders were used on a daily basis rather than utilizing the billing system, and meters were issued without being posted in the computer. Once this was discovered, a policy was set forth that “Generic Work Orders” could only be used on an absolute emergency basis and must be approved by a supervisor.

Report WBLP 7016 will print once a month and detail the number of water meters on file and their location (the service address, on which truck, in the meter inventory, in testing, etc.).

System Control submitted a request to Data Processing for various meter inventory reports to reconcile and document against the service address. Transaction 3 Report shows a list of all meters installed and the locations.

The “Reading Service - Verification of Service Address Against Meter Inventory Report” is worked weekly by part-time personnel.

3. Lack of Written Policies and Guidelines

Criteria: Written guidelines provide a means of ensuring that daily activities are conducted consistently with established operating policies and procedures.

Condition: Written operating policies and procedures had not been formally developed and approved by management to ensure that daily activities were conducted consistently and effectively. We learned that responsible personnel at different levels of management had, at some time, developed such written guidelines, but they had not been formalized. Thus, contradicting guidelines may be in existence at different levels of management.

Effect:

- ▶ Possible lack of operational direction.
- ▶ Inability to achieve managerial goals and objectives.
- ▶ Inability for upper management to ensure or determine if related operations are being conducted as intended.

Cause: Administrative oversight.

Recommendation: The Assistant Director, Department of Operational Services, should take the necessary action to ensure that applicable written guidelines are developed and approved for this and other related operations.

Management Plan of Action: Policies implemented during 1992 were in place during the course of the audit. A revision submitted by the previous MSIII was produced around August 2002. It was felt that the procedures did not adequately address the current operations and would be revised. Written Standard Operating Procedures including Meter Inventory Procedures are in the process of being revised and will be complete by the end of May 2003.

4. Deficiency Noted in Meter Reading Contract

Criteria: Ideally, terms of service agreements include provisions for the contractor to perform specific tasks that will result in the City obtaining maximum benefits for its investment. One such task would be for the water meter reading contractor to ascertain, during the course of fulfilling its meter reading tasks, that all customers receiving water service are in fact included in related billing records.

Condition: Review of the agreement for water meter reading services showed that it contained no provisions for the contractor to verify that water meter identification data shown on computer records was consistent with the meter in use. Nor, did it contain provisions to verify that every household receiving water service was included in related billing listings. As a result, meter readers reported usage data only on those addresses included in their reading assignments.

Effect:

- ▶ Potential loss of revenue.
- ▶ Inaccurately stated meter inventory data.

Cause: Apparent oversight in considering contractual terms.

Recommendation: The Assistant Director, Department of Operational Services, should coordinate with other responsible management personnel for the immediate development of a contract amendment that addresses the deficiencies noted above.

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Management Plan of Action: The Water Meter Reading Contract states that the contractor will read meters with the same guidelines that were previously established for City Personnel. Daily, the contractor is provided with reports that reflect water meter identification and whether or not consumption, based on the current meter reading, is consistent with the meter in use. Also, in Appendix "A" on page 2 of 4 in Paragraph 3, "Meter Condition - the hand held allows Reader to input found meter at service address - Also allows reader to input condition of box and meter." The department plans to rebid the contract in the spring of 2004 and will address these specifics.

2003/2004 Request for Proposals to exchange current meters with AMR meters require G.P.S. coordinates upon installation. This should correct the meter inventory 100%. Specifications will also require that the AMR signal detects stolen meters.

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