

**Inventory Audit
(June 30, 2011)**

JULY, 2011

DURHAM



1869
CITY OF MEDICINE

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CITY OF DURHAM

Memorandum

To: Audit Services Oversight Committee
From: Germaine F. Brewington, Director of Audit Services
Date: August 15, 2011
RE: Transmittal of Inventory Audit (June 30, 2011)

Attached is the Inventory Audit report on the City of Durham's inventory valuation as of June 30, 2011. The purpose of the audit was to determine if the inventory value recorded on the City's general ledger as of June 30, 2011 was fairly stated.

This report presents the results, observations and recommendations of the engagement. The Audit Services Department appreciates the contribution of time and other resources from the employees of various City Departments including Finance, Fleet Maintenance, and Water Management in the completion of this audit.

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BACKGROUND INFORMATION

Annually, the Audit Services Department conducts an audit of the City's yearend inventory procedures and valuation. Historically, departments are chosen based on the total recorded value of their inventory. The emphasis of this audit is to determine if the inventory value recorded on the City's general ledger was fairly stated as of June 30, 2011.

Each department utilizes its own unique inventory system. They include purchased computer software programs (Faster and CityWorks) or spreadsheet applications. The Finance Department adjusts the inventory valuation recorded on the City's general ledger at yearend, based on the physical inventory count.

The City values its inventories using the weighted average cost method (which approximates the first-in, first-out method). The value of the City's inventory as of June 30, 2011 was \$1,857,455 compared to \$1,853,716 as of June 30, 2010.

The Departments or Divisions selected for the June 30, 2011 inventory observation and valuation are as follows:

- Fleet Management Department
- Water Management Department – Plant Maintenance
- Water Management Department – Water Supply and Wastewater Treatment
- Water Management Department – System Maintenance

Purpose

The Audit Services Department performed this audit to determine if the inventory value recorded on the City's general ledger as of June 30, 2011 was fairly stated.

We conducted this performance audit in accordance with generally accepted governmental auditing standards. 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.

Results in Brief

The City's inventory value reflected on the general ledger was fairly stated as of June 30, 2011. A summary of our results follows:

Fleet Management Department

The Fleet Management Department inventory consisted of 1,707 parts valued at \$341,229. Audit staff randomly selected 100 parts and verified the number of units recorded to the physical units on hand without exception. In addition, 20 items were randomly selected and each cost per unit was verified without exception.

Water Management-Water Supply and Wastewater Treatment

Audit staff selected all of the water treatment and wastewater treatment chemicals and supplies at the Brown, Williams, North Durham, and South Durham facilities. The lubricants and chemicals were accurately measured with a few exceptions. The total dollar amount of the discrepancy was immaterial. The value of these chemicals and supplies totaled \$282,739 on June 30, 2011.

Water Management-System Maintenance

The Water Management-System Maintenance Division inventory consisted of 594 items valued at \$ 770,049. Audit staff randomly selected 50 items from inventory and verified the number of units recorded to the physical units on hand. A few discrepancies were noted. The total dollar amount of the discrepancies was immaterial to the inventory as a whole. Ten items were randomly selected and each cost per unit was verified without exception.

Water Management-Plant Maintenance

The Water Management-Plant Maintenance Division's recorded stockroom inventory consisted of 3,347 parts valued at \$276,721. The bioxide chemical which totaled 21,760 gallons was valued at \$42,863. The total inventory for the Plant Maintenance Division totaled \$319,584.

The Audit Services staff randomly selected 45 items to verify the units recorded to the actual units on hand. The value of the items selected totaled \$182,891.92. Test counts revealed 3 exceptions between the units recorded and the physical count, which amounted to .02% of the total parts value. The impact of the discrepancy on the value of total inventory was immaterial. Twenty-five items were randomly selected and each cost per unit was verified without exception.

OBJECTIVES, SCOPE AND METHODOLOGY

Objectives

The objectives of the audit were to determine if the inventory value recorded on the City's general ledger was fairly stated as of June 30, 2011 and to determine if the procedures used to value the inventory were adequate.

Scope

The scope of this engagement included: 1) verifying the inventory valuation recorded on the City's general ledger as of June 30, 2011; and 2) evaluating the adequacy of internal controls over the inventory count performed by each department or division.

Methodology

To accomplish the objectives of this audit, audit staff performed the following steps:

- Interviewed appropriate personnel with respect to procedures used in counting and valuing inventory at yearend;
- Randomly selected a sample of inventory items at each location and, using physical inspection, verified the number of units on hand;
- Randomly selected a sample of items at each location and, using invoices or other documents, verified the per unit cost;
- Randomly selected a sample of items at each location and recalculated the extensions and footings included on the inventory reports; and
- Traced and agreed the department – division totals per the inventory reports to the final June 30, 2011 general ledger.

During the audit the staff also maintained an awareness to the potential existence of fraud.

As required by generally accepted accounting principles, the City of Durham reports in its Comprehensive Annual Financial Report (CAFR) the value of its inventory at yearend. The inventory consists of certain materials and supplies used in maintaining the City's facilities, infrastructure, fleet, fuel, postage, communication equipment, and print shop supplies. The inventory balance as of June 30, 2011 is \$ 1,857,455 compared to \$1,853,716 as of June 30, 2010.

Following are the detailed results for each Department or Division.

- **Fleet Management Department**

On June 30, 2011, the Audit Services staff visited the Fleet Management Department to review their inventory procedures and to verify the valuation of their inventory. Audit staff interviewed personnel at the Department and discussed the inventory procedures performed. The Fleet Management Department utilizes the purchased software program "Faster". The Fleet Management Department utilizes the perpetual inventory functionality of the software.

The Fleet Management Department inventory consisted of 1,707 parts valued at \$341,229. Audit Services staff randomly selected 100 parts and verified the number of units recorded to the physical units on hand without exception. In addition, 20 items were randomly selected to verify the per unit cost. No exceptions were noted. The Division had adequate controls in place when performing the inventory count.

- **Water Management-Water Supply and Wastewater Treatment**

On June 28 and June 29, 2011, personnel from the Audit Services Department visited the Brown, Williams, North Durham, and South Durham Treatment Facilities to review and discuss their inventory procedures and to verify the valuation of their inventory. The inventory value recorded on the general ledger is adjusted at yearend to agree with the actual amounts on hand at yearend. It would not be practical for these treatment facilities to maintain a perpetual inventory system. Each of the facilities maintains approximately a dozen individual chemicals and lubricants. Audit staff verified the unit count of all items included in their inventories. A few exceptions were noted. The total dollar amount of the discrepancy was immaterial. The treatment facilities had adequate controls in place when performing the inventory count.

- **Water Management-System Maintenance**

On June 30, 2011, personnel from the Audit Services Department visited the Systems Maintenance and Construction Division of the Water Management Department. Audit staff interviewed personnel at the Division and discussed the inventory procedures performed. This Division utilizes a purchased software program "CityWorks". The perpetual inventory functionality is used to manage the inventory. Annually, the Division performs a physical inventory count and adjusts the recorded count to the actual units on hand. The June 30, 2011 inventory count revealed minor differences between the actual units on hand and the units recorded in the perpetual inventory system. The net dollar effect was less than 1% of the recorded value.

The Water Management-System Maintenance Division inventory consisted of 594 items valued at \$770,049. Audit staff randomly selected 50 items from inventory and verified the number of units recorded to the physical units on hand. A few minor discrepancies were noted. Ten items were randomly selected and the costs per unit were verified without exception. The Division had adequate controls in place when performing the inventory count.

- **Water Management-Plant Maintenance**

On June 30, 2011, the Audit Services staff visited the Water Management - Plant Maintenance Division to review and discuss their inventory procedures and to verify the valuation of their inventory. There were 3,347 parts valued at \$276,721 included in their inventory as of June 30, 2011. The bioxide chemical which totaled 21,760 gallons was valued at \$42,863. The total inventory for the Plant Maintenance Division totaled \$319,584.

The audit staff randomly selected 45 items to verify the units recorded to the actual units on hand. The 45 part numbers selected were valued at \$182,891.92. Test counts revealed 3 exceptions between the units recorded and the physical count. The discrepancies amounted to .02% of the parts inventory value. The impact of the discrepancy on the value of total inventory was immaterial. In addition, 25 items were randomly selected to verify the per unit costs. No exceptions were noted. The Division had adequate controls in place when performing the inventory count.

RECOMMENDATION

No Recommendations