



**GARLAND**

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**INTERNAL AUDIT**

**Warehouse Electric Inventory  
&  
Ray Olinger Power Plant Inventory  
Audit**

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## **Authorization**

We have conducted an audit of the Warehouse Electric Inventory and Ray Olinger Power Plant Inventory. This audit was conducted under the authority of Article VII, Section 5 of the Garland City Charter and in accordance with the Annual Audit Plan approved by the Garland City Council.

## **Objective**

1. Determine if Inventories are properly accounted for in the City financial system.
2. Ensure Inventories are properly marked, and kept in assigned and locked facilities.
3. Determine if access to inventories is closely monitored and only authorized and current employees have access to the inventories.
4. Evaluate if the inventory is at an appropriate level.
5. Evaluate if there is excessive obsolescence.

## **Scope and Methodology**

We conducted this performance audit in accordance with Generally Accepted Government Auditing Standards. 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 our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

The scope of our audit included inventory located at the Ray Olinger Power Plant (Olinger) and the Garland Warehouse Facility (Warehouse) since 1997.

In order to meet the audit objectives and to describe the scope of our work on internal controls, we:

- Obtained and reviewed policies and procedures from the Olinger and Warehouse to gain an understanding for audit purposes. (Obj. 1, 2, 3, 4,& 5)
- Reconciled transformers listed in Cayenta Inventory System to GAME, a web-based system utilized by GP&L for transformer tracking purposes, to ensure transformers are accounted for in the both systems (Obj. 1).
- Reviewed adjustments to determine if excessive adjustments are made. (Obj. 1).
- Performed an inventory of sample items from both Olinger and the Warehouse to test the accuracy of system counts and value. (Obj. 1)
- Traced department orders through Cayenta to determine if inventory is properly tracked. (Obj. 1).
- Ensured inventory items transferred into Cayenta from 1997 were present to ensure the accuracy of data listed in Cayenta. (Obj. 1)

- Prepared flowcharts and reviewed to ensure segregation of duties was followed by both Olinger and the Warehouse. (Obj. 1)
- Reviewed item locations and bin labels to ensure items were in the correct location and easily located (Obj. 2)
- Reviewed the security systems of the Warehouse to ensure that the facility is appropriately secured and monitored (Obj. 2).
- Obtained and reviewed security access to the Warehouse facility to ensure the list did not contain terminated or unauthorized individuals (Obj. 3).
- Reviewed security cameras to ensure that all were working appropriately and access was limited (Obj. 3).
- Analyzed current inventory levels to ensure that there was no excess inventory and that inventory was at the appropriate levels (Obj. 4).
- Evaluated the inventory based on age and obsolescence to ensure obsolete items are reviewed and disposed. (Obj. 5)

We did not review the lower of cost or market value of the inventory as the Cayenta inventory system retains 100% of the value of items until they are removed from inventory. In addition, GP&L retains 100% of the value for rate-making purposes.

In addition, we assessed the reliability of Cayenta inventory data by (1) performing testing of data elements using Excel and Crystal Reports, (2) reviewing existing information about the data and the system that produced them, and (3) interviewing agency officials knowledgeable about the data. We determined that the data were sufficiently reliable for the purposes of this report.

### **Overall Conclusion**

In general, the City has several controls in place to ensure accountability and security of its GP&L/Warehouse Inventory at the Warehouse and Olinger. Inventories are kept at appropriate level and in assigned and locked/monitored facilities (Obj. 2 & 4 – WHSE & GP&L). However, we noted certain areas for improvement:

- Appropriate accounting for cabling footage and cabling reels are not utilized (Obj. 1 – WHSE).
- We found overages in transformers and in cable in the warehouse yard (Obj. 1 – WHSE & GP&L)
- Lack of Segregation of duties (Obj. 1 – WHSE & OLG) –
  - No mitigating controls in place to segregate the Sr. Inventory Assistant's ability to enter and approve inventory counts and adjustments in the Cayenta Inventory System.
  - Warehouse staff has capabilities of ordering, receiving and gathering inventory items requested.
  - Finance approves Warehouse inventory counts and adjustments.
  - Additional employees have excessive access to the Cayenta inventory system.

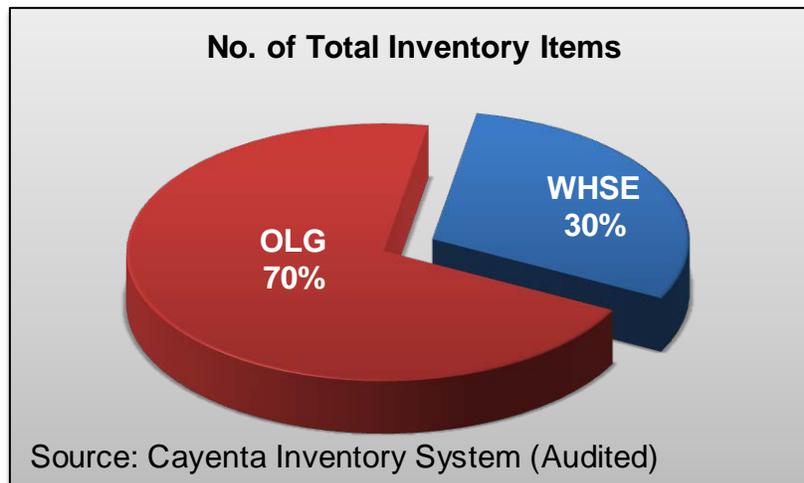
- Naming conventions are not used for the Warehouse Security System and there is a lack of review to ensure terminated employees are deactivated (Obj. 3 – WHSE).
- No annual review process of Warehouse and Olinger items 10 years old and older (Obj. 5 – WHSE & GP&L).

Management was provided additional Opportunities for Improvement to enhance internal controls. These were not considered significant to the objectives of the audit but warrant the attention of management. Consequently, they do not appear in this report.

### Background

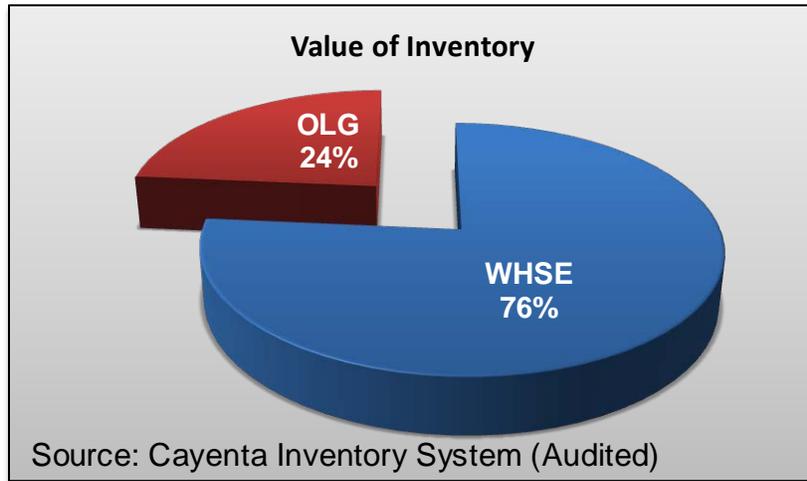
IA's review of the electric inventory listed in the Cayenta Inventory System revealed that the inventory is in two different funds (Warehouse fund and Electric fund) and at two different locations (City's Warehouse Facility (WHSE) and Olinger Power Plant (OLG)). At the start of the audit, we found the system listed 2,220 inventory items located at the Olinger Power Plant which consisted of 70% of the total inventory. The Warehouse Facility contained 943 individual inventory items listed in the system which was 30% of the total inventory (See Exhibit 1).

Exhibit 1



We also concluded from our analysis that the value of inventory located at the Olinger Power Plant was 24% (approximately \$1.5 million) while Warehouse Facility contained 76% (approximately \$4.9 million) at the time of our audit (See Exhibit 2). From our review, we found that the Warehouse Facility contained numerous high dollar inventory items such as transformers and cabling used to support the transmission and distribution of electricity to the citizens of Garland. The Olinger Power Plant contained numerous low dollar inventory items that supported the generation of electricity and plant operations.

Exhibit 2



## **Management Accomplishments \***

A Benchmark Report by the Aberdeen Group defined inventory accuracy of 97% as Best-in Class. Management is pleased that all findings are within the guidelines of an accuracy rate that is Best-in-Class. Although we continually strive for improved inventory accuracy, we are somewhat limited by disparate systems with limited functionality.

Warehouse and GP&L Management appreciate the opportunity to work with Internal Audit to identify areas for improvement. Some of the recommendations have already been implemented resulting in operational improvements.

\* Please note that "Management Accomplishments" are written by the audited entity and that Internal Audit did not audit or verify its accuracy.

## Opportunities for Improvement

During our audit we identified certain areas for improvement. Our audit was not designed or intended to be a detailed study of every relevant system, procedure, and transaction. Accordingly, the Opportunities for Improvement section presented in this report may not be all-inclusive of areas where improvement might be needed.

### Finding #1 (Obj. 1 - WHSE)

#### Condition (The way it is)

The warehouse maintains various types of cable used by GP&L as part of their projects. The cables are received by the warehouse on large wooden and steel reels from the vendor who provides the footage length, gross weight of the reel and the tare weight (weight of the reel without cabling). The warehouse is supposed to utilize the following formula to verify and update the conversion factor listed in the inventory module each time new cabling is received. The conversion factor is needed to get the footage when the cable is returned to inventory.

$$\text{Conversion Factor} = \frac{\text{Footage}}{(\text{Gross weight} - \text{Tare Weight})}$$

Identifying the correct conversion factor is significant during departmental inventory return process. When GP&L returns unused cables to inventory stock, warehouse weighs the cabling reel and multiplies the net weight with the conversion factor in order to identify the footage returned to inventory.

$$\text{Footage} = \text{Conversion Factor} * (\text{Gross Weight} - \text{Tare Weight}).$$

Our verification of the warehouse's current process revealed that the conversion factor has not been verified and updated in the inventory module each time new cabling is received.

#### Criteria (The way it should be)

Conversion Factor should be properly verified and updated in the inventory module each time new cabling is received.

#### Effect (So what?)

Cabling footage and cost is inaccurate in the inventory system.

#### Cause (Difference between condition & criteria)

The conversion factors were not consistently verified to ensure accuracy.

#### Recommendation

Management should consider implementing a process to review the conversion factor each time new cabling is received and the inventory module is updated accordingly.

**Management Response**

Warehouse Management Concur. The current conversion factor has been used since the Finance System was implemented in 1997.

**Action Plan**

The Receiving Technician now reviews and revises the conversion factor with each new delivery of cable.

**Implementation Date**

Immediately.

**Finding #2 (Obj. 1 – WHSE & GP&L)**

**Condition (The way it is)**

Physical counts did not match the Cayenta inventory system. Our physical review of inventory revealed:

A. Warehouse: An overage of transformers as follows:

	<b>Total Transformers Population</b>	<b>Sample Population</b>	<b>Overage</b>	<b>Percentage Dif.</b>
<b>Physical Count</b>	534	378	6	1.6%
<b>Value</b>	\$2,257,970.65	\$2,017,607.83	\$11,681	0.6%

B. GP&L: We found two transformers that were not marked as previously issued.

C. Warehouse: An overage of 6 reels of cables. Our inquiry with management revealed that these cables were previously issued to various GP&L jobs and returned to the yard to put them back in inventory or for auction purposes. However, IA could not obtain any evidence that they were recorded back into the inventory module or processed for auction. Details are provided below:

<b>Serial #</b>	<b>Issued Date (to GP&amp;L)</b>	<b>Job #</b>	<b>Job Close Date</b>	<b>Return Date</b>
1262	11/03/1997	Not Documented	Not Documented	Not Documented
7472	03/08/2010	419522	03/15/2010	Not Documented
7159	10/07/2010	429280	12/02/2010	Not Documented
7160	10/07/2010	429280	12/02/2010	Not Documented
6815	10/07/2010	429280	12/02/2010	Not Documented
Not Documented	Not Documented	Not Documented	Not Documented	Not Documented

**Criteria (The way it should be)**

- A. The physical count must equal the book (Cayenta inventory system) amount. Discrepancies should be investigated.
- B. GP&L Policies and Procedures dictate the process of marking transformers previously issued.
- C. Cable reels returned to the Warehouse yard should be returned to the inventory system or processed to auction in a timely manner. Appropriate documentation should be maintained.

**Effect (So what?)**

- A. If the Cayenta inventory system does not show the transformers, they may

never be issued creating waste.

- B. Leaving previously issued transformers unmarked creates confusion. Yard personnel can inadvertently include these unmarked transformers in inventory and count these twice in the system.
- C. If the Cayenta inventory system does not show the reels, they may never be issued creating waste.

#### **Cause (Difference between condition & criteria)**

- A. Six (6) of the transformers were not accounted for in the Cayenta inventory system and discrepancies were not properly investigated.
- B. Policies and procedures were not followed and the process is confusing.
- C. No policies and procedures in regards to cable reels returned to the yard.

#### **Recommendation**

Management should consider the following:

- A. Performing an accurate count of the transformers and ensure adjustments are investigated and documented where appropriate.
- B. Hold a meeting between Finance, Warehouse and GP&L to re-examine the accountability and responsibility over this process.
- C. Upon return to the yard, ensuring that the cable reels are received into the Cayenta inventory system or processed to auction in a timely manner and maintaining appropriate documentation. Also consider developing policies and procedures regarding the return of cable reels to the yard.

#### **Management Response**

- A. Warehouse Management Concur. A full inventory of transformers has been completed and reconciled.
- B. Warehouse Management Concur. It would be beneficial to re-examine the current transformer reconciliation processes. GP&L concurs that additional clarification is needed for the transformers returned to the yard.
- C. Materials Management Concur. Returned cable should be reconciled in a timely manner.

#### **Action Plan**

- A. Warehouse transformers will be inventoried and reconciled on a monthly basis.
- B. Finance, Warehouse and GP&L will meet to re-examine the current

transformer reconciliation processes. GP&L plans to clarify policies and procedures for returning a transformer to stock. This will be accomplished by meeting with Warehouse and Finance. After the policy is defined the written procedures will be updated and additional training will be provided to all staff.

- C. Upon return to the Warehouse yard, cable will be either returned to inventory or segregated for auction in a timely manner.

**Implementation Date**

- A. Immediately.
- B. December 31, 2013
- C. Immediately.

### Finding #3 (Obj. 1 – WHSE & OLG)

#### Condition (The way it is)

Our review of Olinger and Warehouse inventory processes and Cayenta employee access rights (Inventory/Purchasing modules) revealed the following segregation of duties issues:

- A. Olinger: Sr. Inventory Assistant was solely responsible for conducting periodic inventory counts and entering and approving inventory counts/adjustments in the inventory module.
- B. Warehouse:
  - 1. The Warehouse Coordinators have access to order and receive items in the purchasing/inventory modules.
  - 2. Warehouse office staff has access to enter and approve various departmental requisitions as well as access to gather inventory items listed on the requests.
  - 3. The Finance Department approves inventory counts and adjustments made by the Warehouse Coordinator.
- C. Olinger and Warehouse: In addition, 10 other employees have access to perform entry and approval functions in the inventory module.

#### Criteria (The way it should be)

- A, B. 1&2, C.  
No one person should have control of a process from beginning to end. Separation should exist between custody of assets, record keeping, authorization and reconciliation.
- B. 3.  
The director of Materials Management should approve inventory counts and adjustments made by the Warehouse Coordinator.

#### Effect (So what?)

- A, B. 1&2, C.  
A lack of segregation allows for misappropriation of inventory stock.
- B.3.  
The Finance Department does not have sufficient information and research capabilities to investigate discrepancies of counts/adjustments. Inappropriate counts/adjustments could go undetected.

#### Cause (Difference between condition & criteria)

- A., B. 1 & C.  
Segregation of duties was not considered and/or implemented during setup of access rights.

- B.
2. Management stated he is willing to accept the risk associated with the lack of segregation of duties for the office staff.
  3. A previous audit on January 31, 2002 recommended the Finance Department approve Warehouse inventory counts and adjustments to segregate the duties at the warehouse level. During the January 31, 2002 audit, the Warehouse Manager approved adjustments and counts at the warehouse which resulted in the recommendation. Since that time, the Warehouse Manager was promoted to the Director of Materials Management and has moved his office to City Hall where segregation can be maintained. Due to these changes, Internal Audit no longer believes the Finance Department should approve counts and adjustments for the warehouse.

### **Recommendation**

Management should consider the following:

- A. Review the inventory counts and adjustments or have an individual other than the Sr. Inventory Clerk approve counts and adjustments in the system.
- B. 1 & C.  
Coordinate with IT to ensure segregation of duties are in place in the system. Ensuring Cayenta user access is reviewed for proper segregation of duties.
- B.
  2. Include an additional periodic review of the entry and approval documentation produced by the Warehouse Office Staff.
  3. Designate the Director of Materials Management to approve warehouse inventory counts and adjustments in the System.

### **Management Response**

A & C. GP&L Concur

B 1 & C. Warehouse Management partially concurs. While Management agrees that total segregation of duties is ideal, it is not always operationally feasible. The accounts payable duties are properly segregated, but routine warehouse duties are not in order to provide continuity of operations.

B 2. Warehouse Management concurs. A periodic review can be achieved.

B 3. Warehouse Management concurs.

### **Action Plan**

A. & C.  
GP&L will identify GP&L personnel so that there is segregation of duties at the

Olinger warehouse. GP&L will document the changes and request security changes.

B 1 & C. Warehouse Management will review and segregate routine warehouse duties as operationally feasible.

B 2. Warehouse Coordinators will periodically review entry and approval documentation.

B 3. Director of Materials Management will approve warehouse inventory counts and adjustments.

**Implementation Date**

A. & C. December 31, 2013

B 1 & C. Immediately.

B 2. Immediately.

B 3. Immediately

**Finding #4 (Obj. 3 - WHSE)**

**Condition (The way it is)**

Individuals are granted access to the warehouse yard after hours via a card reading system. In our review of individuals listed as having access, we noted:

- A. Nicknames were used to identify employees in the system rather than official names listed on employee documentation-in HR.
- B. One individual was retired and still active in the system.

**Criteria (The way it should be)**

- A. Names of individuals granted access to the warehouse via secured access should match employee badges issued by HR.
- B. Terminated or retired individuals are deactivated in the security system.

**Effect (So what?)**

- A. Improper naming conventions causes confusion and access may not be deactivated upon transfer, retirement or termination and inappropriate access may be granted.
- B. A terminated employee could gain inappropriate access to the warehouse after hours.

**Cause (Difference between condition & criteria)**

City's Warehouse maintains its own badge provisioning system in order to provide after hours gate access. This process is independent and not managed or reviewed by City's HR/Facilities management.

**Recommendation**

Assistant City Manager should consider utilizing the City's Andover Continuum system (City's main badge provisioning system) in providing the Warehouse after hours gate access. For proper verification and management of this process, the responsibility should be delegated to HR/Facilities management.

**Management Response**

Management Concur.

**Action Plan**

Warehouse will transition to the Andover System.

**Implementation Date**

During FY 2013-14

**Finding #5 (Obj. 5 – WHSE & GP&L)**

**Condition (The way it is)**

In our review for obsolescence of inventory items, we found 131 items that had no usage in more than 10 years. Upon inquiries with the departments, we determined the following:

Location	No. of Items		
	No Usage in more than 10 Years	Critical Spares	To be Removed from the Inventory System
Warehouse	22	11	11
Olinger	109	103	6
<b>Total</b>	<b>131</b>	<b>114</b>	<b>17</b>

**Criteria (The way it should be)**

Items older than 10 years should be reviewed on an annual basis to verify obsolescence.

**Effect (So what?)**

A lack of review could result in obsolete, unusable and/or stagnate inventory.

**Cause (Difference between condition & criteria)**

An annual review process was not facilitated between the Warehouse and GP&L.

**Recommendation**

Warehouse and GP&L should consider developing a report that lists items older than 10-years to be reviewed on an annual basis.

**Management Response**

Warehouse Management concurs. Warehouse and GP&L routinely review items for potential obsolescence, but not specifically 10 year old items.

**Action Plan**

Warehouse and GP&L will review Warehouse inventory items older than 10 years on an annual basis to determine obsolescence.

**Implementation Date**

Immediately.

### **Additional Observation**

Olinger maintains electric items onsite for reliability and emergency purposes. Our review of these items and their recordkeeping process revealed the following:

1. Electric items located in the South portion of the warehouse were transferred from the Spencer Plant when it was purchased. These items were lumped into the purchase price of the Spencer Plant and are now "Free-Pull" by Olinger plant employees.
2. Also noted were salvaged parts from the Newman Plant destruction.

We found no tracking/recordkeeping of these items.

## EXHIBIT A

### Sampling Methodology

In our review of inventory, we decided to use a judgmental methodology because we wanted to select certain inventory items based on specific criteria. We chose to select our items using the following criteria:

- Quantity on hand
- Value on hand
- Unit price
- Years since last used, and
- Physical count

We selected these criteria because we considered these high risk. Our physical review consisted of 159 items from the Warehouse and 91 items from Olinger. This included 41 various transformer types and 6 various types of cable. Our review revealed the following result:

Facility Name	Total # of Items (Population)	# of Items IA Sampled	# of Items Found with Variance in Count	% of Variance	Projected Variance to Total Population
Olinger	2,200	91	13	14%	314
Warehouse	943	159	16	10%	95

We used the same criteria to judgmentally select 41 Purchase Orders from the Warehouse and 10 from Olinger to review the order entry/receiving documentation. We found no discrepancies in the documentation.