

# **Follow Up to Fraud & Waste Investigation – Case 2020-28312 Control Weaknesses Related to Specialized Copper Wire**

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## Introduction

The OCA completed an investigation and substantiated that there was copper wire missing and identified four vulnerabilities. This follow up audit assessed the progress made by management in addressing the recommendations made by the OCA to address the vulnerabilities. A follow up status is listed for each vulnerability based on work performed by the OCA.

## Vulnerability #1: Careless Disposal of Copper Wire

The copper wire that was deemed obsolete, was disposed of in a way that could have been misappropriated as it was tossed into an open dumpster at the Traffic Operations Centre (TOC). This dumpster is accessible to any City staff, at any given time, as some staff use the gas pump at the TOC to fuel their City vehicles. As noted above, this material was listed in the 2019 Year End Inventory report as part number TRSG1966, 2,000 m of copper wire valued at approximately \$5K. However, the value noted on the inventory report reflects the cost of the item to the City, rather than the scrap value of the item. The two Team Lead's who decided to scrap this wire because it was deemed obsolete did so without giving thought to the potential value of this asset.

## Recommendations

It is recommended that the process of disposing of assets be consistent with that outlined in the Procurement Policy section 4.16 (1) the Disposal of Surplus and Obsolete Goods. That is, the Director of the client department shall:

- a) declare a good as surplus or obsolete to the needs of the City before it may be disposed; and,
- b) recommend the appropriate disposal methods, which are cost effective and in the best interest of the City, for the declared surplus or obsolete good.

It is recommended that when disposing of assets containing copper wire, the Traffic Operations Centre Management work together with the Manager of Procurement and the City's Director of Financial Services & Corporate Controller in a manner consistent with Procurement Policy section 4.16 (2) to obtain the best scrap value and/or wholesale value for the item(s) being disposed.

It is recommended that all scrap metals be kept under constant surveillance to guard against theft and to ensure that they are disposed properly.

## Management Response

Agreed.

A full review and training on the Procurement Policy is underway. The Transportation

Operations and Business Initiatives sections will coordinate with Corporate Security to ensure appropriate disposal methods of copper wire. The definition of a returned material policy will be in alignment with the construction of standard operating procedures in recommendation #1 from Appendix B (in AUD20008).

Anticipated completion date: Q4 2020.

## Follow up Status

### **In Progress.**

An SOP was published in October 2021 regarding the Disposal of Obsolete Excess and Dormant Inventory. It is in alignment with the current Procurement Policy (By-Law No. 20-205) Section 4.16, Policy # 16 - Disposal of Surplus and Obsolete Goods.

OCA observed that the same copper wire part number TRSG1966 as noted in the investigation is sitting in the yard of the compound instead of being in the secured cage in the garage designated for copper wire. The yard of the compound is now secured by restricted gated access and there is a fence around the perimeter. Per staff, this cable is rarely used. Even though the cable may be of limited or infrequent use by the field, it still has scrap value beyond its daily usage and should be stored in a secured location.

## Vulnerability #2: Inadequate Tracking of Copper Wire Usage

The amount of copper wire used is not tracked adequately. The copper wire spools known as part numbers TRSG1967, TRSG1970 and TRSG1994, are stored in the garage near the staff trucks. At the start of their work day, the staff pull the length of different copper wires needed from these spools and load it onto their work trucks. The amount of wire taken is neither recorded by these staff nor by the clerical staff as the copper wire spools are not located in the main stockroom.

When the staff finish their job, they complete the Daily Activity Sheet (DAS) and indicate the quantities of materials used. At the end of their shift, the staff return to the Traffic Operations Centre and discard any scrap copper wire left over from the job into the dumpster, located at the back of the TOC. The staff submits their DAS to the Team Lead. On the DAS, the Team Lead can see the amount of wire reportedly used by the TSS. However, the amount of wire scrapped by the staff is not reported. Therefore, a reconciliation cannot be performed to ensure that the amount of wire loaded onto the truck, corresponds to the amount of wire used on a job and the amount that is scrapped upon return to the TOC location at the end of the shift. In addition, third party contractors working on City projects will sometimes come to the

Traffic Operations Centre and pull out lengths of copper wire from the spools in the garage themselves, without TOC staff or management knowing the amount of wire that was taken.

## Recommendations

It is recommended that the spools with the copper wire part numbers TRSG1967, RSG1970 and TRSG1994 are stored in a location where they will only be distributed by the clerical staff.

It is recommended that the staff, at the end of their work day, return any waste or unused copper wire to the clerical staff instead of disposing of the wire themselves.

It is recommended that clerical staff maintain a log showing the amount of copper wire pulled off the spools; to whom the wire was issued (including third party contractors); and the amount of wire returned to be scrapped at the end of the day.

It is recommended that Team Leads perform spot checks on a regular basis by comparing the amount of wire issued to the amount of wire used (as indicated on the DAS), and the amount of wire returned for scrap. Management should also investigate whenever the amount of wire issued exceeds the sum of that used and that returned for scrap.

## Management Response

Agreed.

Management will undertake the risk-based assessment of storage and complete a Kaizen event to optimize the inventory structure and breakdown. Copper wire stock will be moved into primary stock location as part of the reorganization of the facility.

Anticipated completion date: Q2 2021.

## Follow up Status

### **In Progress.**

For copper wire/cable needed that is kept in a primary stock location (locked, secured cage), when copper wire is needed by field staff, they submit a Stock Pick Ticket to clerical staff. Clerical staff will then go into the secured cage and cut the amount requested. The Stock Pick Tickets serve as a record of what was issued and to whom it was issued. There is no separate log tracking for this. Any copper wire issued but not used may be kept on trucks for future projects. Any scrapped cuttings are to be returned to the clerks. There are also separate secondary inventory locations which include wire/cable issued to field staff which are kept in their trucks, a cable trailer, and the yard (see Vulnerability #1 re: TRSG1966). These can be accessed directly by field staff. Per management, the cable trailer location is necessary for operational requirements and security coverage was considered by Corporate security's review. There are procedures drafted in the Cable Management and Reconciliation SOP for a

supervisor to perform periodic audits and spot checks. These audits are to be performed at least once a month and documented. At the time of this review, these spot checks were not being performed. Redefining audits and spot checks will be incorporated in Revision 02 of the Cable Management and Reconciliation SOP.

### **Vulnerability #3: Errors Recording Copper Wire Usage in Hansen**

The data entry of copper wire usage into Hansen is prone to errors. Upon receiving the TSS Daily Activity Sheet, the Team Lead reviews and authorizes the DAS. The authorized DAS are forwarded to the clerical staff. The clerical staff enter the activity into Hansen including the amount of wire used. Since this is a manual process, there will sometimes be a difference between the amounts recorded in the DAS and the amounts keyed into Hansen.

The OCA compared the copper wire usage reported on the DAS to what was keyed into Hansen over the past four years (2017 to 2020). The OCA noted that the variance was greatest for copper wire TRSG1994 CABLE 14-14; the most expensive of the three copper wires in this review. In 2019, the usage reported by Daily Activity Sheets was 724 m less than that reported by Hansen. The value of this discrepancy totalled approximately \$4,900.

### **Recommendations**

It is recommended that periodic reconciliations be performed to ensure that the quantities of materials used by staff, as reported on the Daily Activity Sheets, are accurately recorded in Hansen. A record of such reconciliations should be retained for at least three years.

It is recommended that management investigate and implement a method to automate the uploading of the actual quantity of materials used by staff in the field from the Daily Activity Sheets into Hansen.

### **Management Response**

Agreed.

The associated changes to the roles and responsibilities for inventory adjustments will be outlined in the operational plan and standard operating procedures related to inventory adjustment. Staff corporate policy training to be completed in Q4 – 2020, as per recommendation in Vulnerability #1.

Anticipated completion date: Q1 2021.

## Follow up Status

### **In Progress.**

There are no periodic reconciliations of quantities used by staff as reported on the DAS to ensure they are accurately recorded in Hansen. Per staff, between the spot checks in the Cable Management and Reconciliation SOP as mentioned in Vulnerability #3 and the Year-End Inventory and Cycle Counts, this would help maintain accurate inventory amounts in Hansen.

The spot checks were not performed in 2021 (as noted in Vulnerability #2 above). Per Management, redefining audits and spot checks will be incorporated in Revision 02 of the Cable Management and Reconciliation SOP. Copper wire was not counted as part of the 2021 Cycle Counts.

Staff is advocating for capabilities in Enterprise Asset Management (EAM), the new asset management system to replace Hansen, to possibly allow for the loading of the actual quantity of materials used directly into the system, rather than rely on manual documentation on timesheets (DAS). Completion of this recommendation is dependant upon EAM implementation for Transportation Operations & Maintenance (TOM) which is planned for late 2024 – early 2025 according to the EAM team.

## Vulnerability #4: Inadequate Safeguarding of Copper Wire Assets

The 2019 Year End Inventory report indicated that a total of 14,394 m of copper wire (part numbers TRSG1967, TRSG1970 and TRSG1994,) with a combined value of \$52.6K, was stored in the compound outside of the garage. That is, when the inventory count was taken in late December 2019, these wires were stored in the outside yard. Here, they would have been accessible to different City staff that use the TOC gas pumps to fuel their City vehicles after regular business hours. When questioned, both management and the clerical staff stated that this type of copper wire has never been stored in the compound outside the garage. However, they could not produce any documentation showing who counted this inventory and where the copper wire was stored while being counted.

The three wire cables have indicators placed at regular intervals on the rubber sheathing covering the copper cable. These indicators show the amount of wire remaining on each spool. It was not possible to validate that these indicators were used to calculate the amount of wire remaining in inventory.

TOC Procedures indicate that periodic cycle counts are usually performed on inventory items with high value or those that cycle in and out of inventory quickly. Yet, despite their high value, part numbers TRSG1967, TRSG1970 and TRSG1994 were not included in the cycle counts in 2019 or 2020.

## Recommendations

It is recommended that management re-organize the storage and inventory of all copper wire at the Traffic Operations Centre to ensure that all copper wire is stored in a secure location, safeguarded from potential theft.

It is recommended that periodic cycle counts performed throughout the year include all copper wire and that the indicators on the rubber sheathing be used as a quick way to gauge the amount of wire in inventory.

## Management Response for this Section

Agreed.

Copper wire stock will be moved into primary stock location as part of the reorganization of the facility. Management will create a schedule for inventory counts.

Anticipated completion dates: Q2 2021 for relocation of copper wire. Q4 2020 for cycle counts (to align with Recommendations #19 and #20 in Appendix "B" in Report AUD20008).

## Follow up Status

### **In Progress.**

A locked cage has been set up in the garage as a primary stock location and most of the copper wire has been moved to this location. There is restricted access to the lock key. Exceptions to this are the cable (TRG1966) sitting out in the yard of the compound noted in Vulnerability #1 and the copper wire in secondary stock locations (trailer and some surplus on trucks as noted in Vulnerability #2).

Copper wire/cable was not counted as part of the 2021 Cycle Counts. Per staff, the copper wire was not moved to the secured location until Q4 2021, so it was just counted as part of the annual inventory in January 2022. For 2022, it is intended to be counted as part of the regular cycle count schedule.

OCA noted there were challenges to getting an accurate measurement on spools which have been partially used. There are measurement indicators on the rubber sheeting of the cable, however, that is not necessarily an indication of the length on the spool. For example, the end measurement on a spool may say "1365 m," but not all spools of cable start with a "1 m" measurement indicator. Also, if it is not possible to access the innermost point of the cable to read the measurement indicator, there is no way to know exactly how much cable is on the spool. Additionally, some spools count "up," meaning the end measurement indicator may say "1365 m" and the next measurement going towards the inner part of the spool may say "1366 m."

The new cable and wire tender specify that the vendor provides the cable reels with the cable indicators starting at 0 and counting up; however, for some of the spools currently in inventory this may not be the case. Unless they are unopened/unused



spools where the full spool amount is known or the innermost cable measurement can be accessed, inventory counts of cable/copper wire are at best, an estimate.

OCA recommends noting the end measurement indicator on a spool when it is first used and even if estimates have to be used for cycle counts and year-end inventory count, a final adjustment can be made when the spool reaches the end and the inner measurement indicator can be read to verify the amount that was on the spool.