

TTC AUDIT COMMITTEE REPORT NO.

MEETING DATE: April 30, 2012

SUBJECT: INTERNAL AUDIT – SAFETY AND ENVIRONMENT
DEPARTMENT

INFORMATION ITEM

RECOMMENDATION

It is recommended that the Audit Committee receive for information the attached Internal Audit Report.

Joseph L. Kennelly
Chief Auditor (Acting)

April 30, 2012
01-27

Attachment – Internal Audit Report

EXECUTIVE BRANCH

SAFETY AND ENVIRONMENT DEPARTMENT

**SAFETY AND ENVIRONMENT SERVICES
AND
SYSTEM ASSURANCE AND ENGINEERING**

**Covering Period:
January 2010 to April 2011**

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EXECUTIVE SUMMARY

This audit assessed the key management and operational controls of the Safety and Environment Services, and System Assurance and Engineering sections of the Safety and Environment Department. An Exit meeting was held on December 19, 2011 with the General Manager – Executive Branch and the Chief Safety Officer to discuss the audit findings.

The Safety and Environment Services section operates with an approved budget of approximately \$2 million. At the time of the Audit, staffing consisted of fifteen employees including Occupational Hygienists, Environmental Advisors, and Safety Liaison Officers. The System Assurance and Engineering section had an approved budget of approximately \$1 million. Staffing for this group consisted of sixteen employees which includes Fire Prevention Officers, Safety Assurance Officers, Quality Control Inspectors and a Quality Assurance Engineer. However, subsequent to the completion of the audit, the Department was reorganized and staffing levels were reduced in September 2011.

Audit found that the areas are generally well managed and controls are in place. However, several areas were identified whereby strengthening of the existing controls was recommended to minimize risk exposures and costs.

Audit recommended that controls be strengthened for the Workplace Hazardous Materials Information System (WHMIS), Spills and Leaks Response, Respiratory Protection and Hazard Identification and Risk Assessment (HIRA) programs. Recommendations were also made for developing guidelines for documenting environmental inspections; ensuring that fire inspections are established for TTC leased facilities; and, controls are improved over the inventory of gift awards under the Zero Injury Awards program, as well as evaluating the benefits and “value for money” derived from the program.

Other recommendations related to the consultant services contract for achieving a long-term sustainable safety culture, and administration of mileage claims and lieu time worked.

Management agrees with the recommendations and action is being taken to implement stronger controls in all of the areas identified.

We wish to express our thanks for the cooperation and assistance from all parties during the course of the Audit.

R.G. Beecroft
Chief Auditor

J.L. Kennelly
Audit Manager

FOREWORD

The Safety and Environment Department is composed of four sections and reports to the General Manager – Executive Branch. This audit focused on two of the sections – Safety and Environment Services, and System Assurance and Engineering.

The Safety and Environment Services section has responsibility for two major functions – Corporate Safety and Environment Services, and Client Safety and Environment Services. Corporate Safety and Environment Services is to protect employees, customers and the natural environment from hazards arising from TTC facilities and operations. Client Safety and Environment Services is to proactively support the TTC in its aim to achieve an injury-free workplace, and maintain compliance with the System Safety Plan and all applicable policies and legislation.

The System Assurance and Engineering section is to provide the TTC with accurate, reliable and unbiased services, such as System Safety reviews, safety assurance checks and quality control inspection, in a professional manner performed by experienced and qualified personnel.

AUDIT SCOPE AND OBJECTIVES

Scope The audit included a review of management, operational, administrative and financial controls of the Safety and Environment Services, and System Assurance and Engineering sections of the Safety and Environment Department for the period January 2010 to April 2011.

Objectives To assess the management, operational and administrative controls to ensure:

- accountability and reporting relationships are appropriate for the Commission
- due regard for economy, efficiency, and effectiveness
- procedures and processes are in place to measure and report on the sections' activities

To evaluate the adequacy of financial controls to ensure:

- compliance to Legislative and Commission requirements
- the timeliness, accuracy, completeness, and authorization of transactions
- the safeguarding and control of assets and other information

AUDITED ITEMS FOUND ACCEPTABLE

KEY CONTROL	FINDING
Work Refusal Investigations	Procedures are followed to investigate and resolve work refusals.
Staff Training and Development	Training requirements are identified, included in the annual budget, and monitored for completion.

AUDITED ITEMS FOUND UNACCEPTABLE

FINDING #1

SAFETY PROGRAM MANAGEMENT

OBJECTIVE: To determine that the TTC's safety programs are effective to address key risk issues and ensure safety risks are minimized.

ANALYSIS: Audit's review noted the following programs where control improvements are required:

Workplace Hazardous Materials Information System (WHMIS)

The TTC is responsible to obtain, distribute and replace suppliers' Material Safety Data Sheets (MSDS) for products controlled through the WHMIS database. The Occupational Health and Safety Act requires that an MSDS must be updated every three years. If an update cannot be obtained, the product must be described as expired in the database and no new purchases are permitted. Audit's review of the WHMIS database found 203 active products used within the TTC that do not have a current MSDS on file, as required.

There is a risk that products with an expired MSDS may continue to be purchased and used in the TTC workplace which can impact on the safety of TTC employees.

Spills and Leaks Response Program

The Spills and Leaks program involves monitoring, testing and analyzing for areas of changing safety exposure and risks. Spills and leaks incidents are brought to the attention of the Department through either the Emergency Incident Report ("EIR") or the Bus Delay Log. Procedures are in place for when and how to notify the Environmental Advisor and the on-call Departmental employee. However, Audit's review of 497 incidents recorded in 2010 found the following variances from the procedures:

- 19 incidents where the quantity of litres spilled was not recorded, as required
- 184 incidents had no supporting EIR on file or evidence that an on-call person was notified, as required

In addition, there is no analysis of the information collected to identify concerns or trends that should be reported to the Operations Branch for follow-up and investigation.

Without evidence of supporting documentation and notifications for spills and leaks incidents, risk levels may not be correctly assigned and deficiencies not addressed.

Respiratory Protection Program

The Canadian Standards Association (CSA) standard Z94.4-02 Selection, Use and Care of Respirators recommends employees that require respirators in their work should be retrained and have the equipment refitted every two years. Audit was advised that this procedure is not in place at the TTC, and TTC Departments have not been proactive in monitoring employees who require respiratory protection to follow the recommended CSA standard.

Hazard Identification and Risk Assessment (HIRA) Program

The HIRA program has been in place for several years. An evaluation of the effectiveness of the HIRA process has not been performed; consequently, there is no assurance that the HIRA process is effective in achieving TTC's corporate safety goals.

RECOMMENDATION:

Management should ensure:

- WHMIS product safety information is maintained in accordance with the Occupational Health and Safety Act
- documentation of spills and leaks supports action taken and provides useful information for management decision-making
- a policy is developed for the respiratory protection program that includes standards for refitting and retraining TTC employees who require respiratory protection
- HIRA process is evaluated for effectiveness in achieving TTC's safety goals and objectives

MANAGEMENT RESPONSE:

WHMIS:

The regulation applies to products that are "controlled." The WHMIS file includes products that are controlled and not controlled. All products on the system have been reviewed and approved for use. If a manufacturer changes the formula for a

product, OSHA requires that they provide an updated MSDS to customers.

The WHMIS Assistant position is dedicated to ensuring that the system is current as possible. The WHMIS database is very dynamic and changes on a daily basis. The 3 year expiry of an MSDS is an administrative issue. The expiry of an MSDS does not impact/change the product's inherent safety. The system clearly indicates when a product has expired. The system also flags products that will expire in the coming months and starts the process for obtaining an update. If the manufacturer does not respond to our request for an updated MSDS, then we escalate the request to the buyer in Materials and Procurement Department to enlist their help in fulfilling our request. An update to the Federal Hazardous Materials System is expected in 2012, at that time, the current WHMIS system will undergo a complete review.

Spills and Leaks Program:

Information regarding spill reporting is included in the Spills Training program. Spill reporting is an Operations responsibility. CSES procedures include a review of the daily logs to look for spill information and include it in the database. Not all spills meet the thresholds to submit an Emergency Incident Report (EIR) and we believe many incidents which lack an EIR fall into this category. As incident information is received, requests are sent to the affected Department in an attempt to fill in missing information and complete the data base. Spill information is on a monthly basis through the Departmental Progress Report and on an Annual basis through the Annual Review of the Corporate Environment, Health and Safety Management System (EHS) Report.

We will send out an annual reminder notice which outlines the roles and responsibilities of all parties under the Spills and Leaks Program to Management group.

Respiratory Protection Program:

The current program does contain requirements for refitting; it is the end user who is responsible for identifying the need and starting the re-fit process. The Respiratory Protection Program is currently under review. An updated CSA standard was released in October 2011. The revised corporate program will reflect changes to the CSA standard if appropriate to the needs of TTC.

We will issue a notice to all participating Departments to remind them of the key roles they need to play to ensure the integrity of the Respiratory protection program.

HIRA:

We will review the hazard management process as part of a larger review of the safety function following the downsizing in Q4 2011. This will include an assessment of the HIRA process, training and database management.

Responsibility:

WHMIS: Team Leader – Occupational Hygiene and Environment (M. Langdon)

Spill and Leaks Program: M. Langdon

Respiratory Protection Program: M. Langdon

HIRA: Team Leader – Safety Engineering Services (B. Case)

Status:

WHMIS:

To be reviewed once the new Federal guidelines are issued.

Spills and Leaks:

Notice to be issued by February 2012.

Respiratory Protection Program:

Final updates to the program will be made once the new CSA Standard is issued, target June 2012. Notice to participating departments will be issued by February 2012.

HIRA:

The review of HIRA will be completed by June 2012 and proposed improvements will be developed by for approval December 2012.

FINDING #2

ENVIRONMENTAL AND FIRE INSPECTIONS

OBJECTIVE: To determine that effective processes and procedures are in place to identify and address environmental risks and fire code requirements to protect TTC employees and work locations.

ANALYSIS: Audit's review of the inspection processes found the following areas where improvements are required:

Environmental Inspections

Environmental inspections are to identify key risk areas in TTC work locations in order to minimize employee health risks and liabilities. A review of the environmental inspection processes for the Sewer Monitoring Program and Mount Dennis Project found that there are no guidelines which outline:

- type of documentation that should be collected and retained, including contact information for the individuals involved whether internal or external to TTC
- permissions for the sharing of and access to information, and the location where documentation should be stored, e.g., electronic and physical location

There is a risk that required inspection information may be lacking and action taken is not documented. The lack of a centralized location of inspection information and who has access to the information can result in information not available when required and/or privileged information disclosed without authorization.

Fire Safety Inspections

There is no process or role requirement in place for the Department to review the safety of TTC leased facilities prior to committing to a lease agreement. While facility inspections are performed by the Department, these are on a request only basis. The lack of a fire inspection of leased premises increases safety risks to TTC employees, and potential cost and time delays to correct deficiencies.

RECOMMENDATION:

Management should ensure:

- guidelines are developed for documenting environmental inspections, including requirements for document storage and access
- the Department's role for fire inspections of non-TTC buildings is defined, and accountability for fire inspections of TTC leased facilities is established

**MANAGEMENT
RESPONSE:**

Environmental Inspections:

The two examples cited, Sewer Monitoring Program and Mount Dennis project are covered by the SOP 304 - Technical Services, they are not inspections. Documentation is covered under Departmental SOP 000. Mt. Dennis is a project managed by Engineering and Construction Branch. We will meet with their management to identify and correct any weaknesses in the document control protocol.

Our general opinion is that our limited staff time is better spent on formal quality assurance checks to verify compliance with regulatory requirements such as the conditions of approval for Environmental Protection Act Certificates of Approval rather than on facility inspections. The latter should be seen as a part of the quality control activities of line management. In light of the recent departmental consolidation we will review the programs to ensure resources are devoted to those services which yield the highest value to TTC as a whole.

With regard to Sewer Use Bylaw monitoring, this activity has not been formally organized as a program since we lack the resources to implement a comprehensive verification of compliance and the subsequent follow up activities required to track down the sources of non-compliance. Nonetheless, we will prepare an SOP to ensure the activities, will follow a standard technique to ensure consistency and validity and we will deploy it on a sample basis, rather than comprehensively.

Fire Safety Inspections:

Agreement on a process to inspect prospective new leaseholds prior to making a rental commitment was documented in a memo to D. Garisto dated September 16, 2011. This process is effective immediately.

Responsibility: Environmental Inspections: Team Leader – Occupational Hygiene and Environment (M. Langdon)

Fire Safety Inspections: Team Leader – Fire Safety and System Assurance (R. Duggan)

Status: Environmental Inspections:
Consultation with E&C by January 2012

SOP on Sewer Use Bylaw by March 2012

Fire Inspections: Complete.

FINDING #3

ZERO INJURY AWARDS PROGRAM

OBJECTIVE: To determine that controls for the Zero Injury Awards Program are effective and “value-for-money” is achieved.

ANALYSIS: The Department is responsible for determining eligibility for the Zero Injury Awards program, purchasing the awards (i.e., gift cards, draw prizes), requesting cheques for the payment of presentation expenses, and maintaining an inventory of draw prizes. For 2010, gift cards ordered amounted to \$96,532 and funds allocated for presentation expenses were \$29,247.

Audit’s review of the controls over the safety award and storage of draw prizes noted the following weaknesses:

Safety Awards

Controls over the return of documentation for gift cards and presentations are not effective. Procedures require that documentation evidencing employees’ receipt of the awards (e.g., a signature listing of all eligible recipients of the gift cards), supporting receipts for the presentation expenses, and any excess funds be submitted to the Department within thirty days after the presentation.

The following control weaknesses were noted:

- a signature listing of recipients indicating that the awards have been given to the eligible employees was lacking for nineteen (37%) of the fifty-one presentations in 2010
- receipts to support expenditures for refreshments totaling \$9,786 were not on file
- gift cards held in inventory are not used first prior to ordering new quantities of gift cards

Inventory Control for Draw Prizes

Inventory of draw prizes is not verified for physical existence and reconciled to the inventory listings. For example:

- in a sample of sixteen inventory items randomly selected for verification, ten items counted did not agree with the inventory listing count
- a review of the Inventory Record Forms for six cost centres identified defective and surplus items which should have been removed from inventory

RECOMMENDATION: Management should evaluate the costs and benefits of the Safety Awards program to determine that “value-for-money” and control is achieved for the TTC.

**MANAGEMENT
RESPONSE:**

Controls:

Reconciled all Inventory Records forms by consolidating the records of the three clerks who accessed this inventory. As of December 5, 2011 this Program was transferred to Marketing Department. As of December 12, 2011 there are 11 departments who have not submitted refreshment receipts and 15 who have not yet submitted a list of gift card recipients. We maintain records of our efforts to follow-up with these departments.

Value for Money:

Compensation Services has commenced a review of employee recognition programs at the TTC, which will include an assessment of value for money spent. Recommendations are to be provided in December 2011. This review will include the zero injury program, and the Safety and Environment Department will contribute to this process and support the Human Resources Department review.

Responsibility: Controls: Chief Safety Officer

Value for Money: Human Resources Department

Status: Reconciliation of Inventory – Complete

Value for Money: Target Completion Date December 2011.

FINDING #4

CONSULTANT SERVICES – SUSTAINABLE SAFETY CULTURE

OBJECTIVE: To determine that contract performance measures to assess consultant services rendered ensure benefits and “value-for-money” are received.

ANALYSIS: The TTC entered into a contract with Behavioral Science Technology, Inc. (BST) in December 2007 to deliver a comprehensive safety management approach to improve the TTC’s safety program and future safety record, change the safety culture within the TTC’s organization, increase accountability with respect to safety, and reduce future costs expended for workers’ compensation. The original contract price of \$7.2 million was amended to \$8.7 million.

The contract lists four indicators that are to be reduced over the duration of the contract:

- lost time injury rate (LTIR) per 100 employees (excluding recurrences)
- no-loss time injury incidents per 100 employees
- costs paid to the WSIB (Workplace Safety and Insurance Board) without a corresponding increase in Sick Benefit Association costs
- passenger injuries and vehicle collisions

Audit noted that only the first two indicators are measured. Although the cost/benefit analysis and fee structure for the contract were established based on projected cost savings, the consultants’ entitlement to their performance bonus is not measured against WSIB cost saving but only against LTIR. Identifying the beneficial impact made by the consultants is difficult due to:

- participation in CARE (Controlling Accidents by Reducing Exposure) committees is optional
- staff or management at the operational level may not cooperate or submit the CARE data correctly
- ensuring training reaches all levels and local CARE committees as some are very small

In the contract Section 4 “Desired Results” states that the consultant’s work must not only result in lower LTIR, but also cultural transformations such as unified safety culture,

reinforcement of safety as an organizational value, demonstrated safety leadership at all levels, and the TTC being recognized as the safest among large multi-modal transit agencies in the world. Per Audit discussions these “soft” goals are not measured. Since the TTC is seeking permanent savings, the assumption made is that these changes will result due to achieving and maintaining lower LTIRs. Consequently, whether the contract’s performance results has achieved the optimum level of safety at the TTC and sustains long-term success has not been measured.

RECOMMENDATION: Management should ensure that contracts of this type of consultant services in the future are developed to include performance criteria that are well defined to objectively measure contract benefits and value received.

**MANAGEMENT
RESPONSE:**

The BST engagement was under the overall responsibility of the General Manager – Operations, who, in his capacity as Chair of the Senior Leadership Team (SLT) gave due consideration to information needs and appropriate metrics and received timely reports.

At the time when the original tender proposals were being evaluated, BST was the only compliant proposal which met the minimum evaluation threshold. This was a “two envelope” process in which the pricing proposal is segregated from the proposed work method being proposed to achieve the objectives of the project. BST presented several optional pricing schemes including a Performance Based scheme in which they would put part of their fixed fee at risk in exchange for the ability to earn a bonus upon the achievement of certain Lost Time Injury (LTI) objectives. This option was selected by Management and approved by the Commission. In order to administer the commercial terms of the contract, an SOP was developed to track Lost Time Injury Rates (LTIR) and particular emphasis was placed on accurately tracking this metric.

It was not, however, the only metric tracked by the SLT for purposes of managing the overall engagement. The SLT carefully considered its information needs and directed that the following reports be prepared containing data and information which they reviewed as the basis for managing the program:

1. BST Monthly report recorded progress in delivering various services and establishing new processes such as CARE and LOFT.

2. Safety and Environment Department produces three monthly statistical reports on occupational injuries, CARE metrics and MinTrack (JHSC outstanding items). These were reviewed monthly by the SLT.
3. Before and after Organizational Culture Diagnostic Instrument surveys of all employees highlighted challenges and then changes in safety culture attributed to the engagement and were summarized in BST reports in 2008 and 2010.
4. Safety and Environment Department produces quarterly reports on occupational and public safety/collision trends at the Corporate and department level. These reports contain comparison data as available to track TTC performance relative to other major transit agencies.
5. Monthly updates by the CARE facilitators to identify successes and barriers to implementing the program.

Responsibility: Chief Safety Officer

Status: Complete

FINDING #5

ADMINISTRATION

OBJECTIVE: To determine that accurate and approved records are kept of employee attendance, including overtime/lieu time, and mileage expense claims.

ANALYSIS: Audit testing of payroll documentation revealed the following control issues:

Mileage Claims

Mileage reported by employees for travelling between their home and work location is not correctly identified on the claim forms, as required by TTC Policy 13.1.6 Personal Automobile Use. The Policy states that claimants must report their daily reimbursable distance and the reason for it, disclosing separately kilometers traveled from home from all other travel. As a result, incorrect recording on the mileage claim can result in the claim reimbursements processed as non-taxable to the employee.

There is also inconsistent application of the definition of "normal work location" by employees. There are only three scenarios under which an employee is permitted to claim actual distance travelled between home and the normal work location; and, that travel to and from a site other than the employee's normal work location and his/her residence is subject to the Lesser Distance rule in Section 3.4 of the policy. Audit testing found variances from this rule in reimbursements to employees.

The lack of compliance with the TTC Policy for mileage reimbursement increases the risk of negative public image and financial costs to the TTC.

Lieu Time

A review of the Lieu Time Aging Report noted a total of 171.75 hours of unused lieu time accumulated for three or more months by staff employees. Audit selected a sample of employees to assess the reason for accumulating the lieu time beyond three months and requested to examine the authorization as per Section 3.1.2 of TTC Policy 4.40.4 Lieu Time and Overtime. No authorization was on file; and, employees were not aware of the three month rule as per the TTC Policy.

The lack of utilization of lieu time earned within three months increases the TTC's cash requirements, when cash payments are made for the lieu time owing to employees.

In addition, the Department's Standard Operating Procedure permits the Directors to self-approve and record lieu time. The absence of supervisory review and approval could increase costs to the TTC.

RECOMMENDATION:

Management should ensure:

- the calculation of mileage claims is in accordance with TTC Policy 13.1.6 Personal Automobile Use
- evidence of supervisory review and approval of overtime/lieu time

MANAGEMENT RESPONSE:

Management has consulted with Finance Department over the correct interpretation of the Policy on Personal Automobile Use and has issued a letter to all staff on September 2, 2011 to provide clear direction on submission of mileage claims.

A new weekly file of time reporting to the Chief Safety Officer (CSO) has been developed with the assistance of the Information Technology Services (ITS) Department. This has created an integrated system for approval of all time exceptions for all Departmental staff. With the elimination of all administrative support positions in the Department, the Team Leaders and CSO will enter payroll data directly into the Online Attendance Reporting System (OARS) beginning in December 2011. SOP 004 will be amended to reflect this process.

Responsibility:

Chief Safety Officer is responsible for both items.

Status:

These processes are now in place. The SOP will be amended by December 31, 2011.