

# AUDITOR GENERAL

Halifax Regional Municipality

Audit & Finance Standing Committee

## A Performance Review of Risk Management: Fuel Spill at Halifax Transit<sup>©</sup>

May 20, 2015

- The project focused on Halifax Transit bus fuel only.
- The focus of the project was mainly around the internal controls in place to detect fuel inventory issues as well as the controls in place to possibly prevent a spill of the magnitude which took place from happening.
- The project also focused on risk management processes in place around fuel management including a review of provincial regulations and the applicability to fuel stored at Halifax Transit.
- Any facts around the relationship between HRM and the contracted professionals who installed a new above-ground fuel system and removed the in-ground tanks and the respective responsibilities were outside the scope of this project.

- Halifax Transit did not know about a fuel spill on their property for months.
- The spill was not detected by Halifax Transit personnel or systems, rather by a business which is located a kilometer away.
- HRM did not have processes in place to first identify all the risks and then assess the possible impact multiplier or to identify when physical losses were in fact occurring.

- Various reasons an organization is required to have strong controls around managing fuel – Numerous operational reasons including:
  - To ensure a high value taxpayer asset is not being lost due to theft, misappropriation or leakage,
  - To have accurate consumption data to assist with management of the overall transit system and costs to operate various buses and routes.
- Also, to manage the risk with the highest potential impact which in this case is:
  - the high cost associated with the “polluter pay” principle found in the Nova Scotia Environment Act.
- To ensure compliance with legislation including the Nova Scotia Environment Act and Petroleum Management Regulations.

- Once HRM made the operational decision to accept the risks associated with fuel, it also had a direct responsibility to taxpayers to:
- Control the likelihood of the risks becoming a reality,
  - Control the impact of the risks from both qualitative and quantitative perspectives,
  - Ensure appropriate professional and regulatory standards are met and
  - Manage potential liabilities.

## ➤ Duties & responsibilities:

- A responsibility to be aware of risks to the environment resulting from having bulk fuel on-site,
- A duty to understand fully all aspects of environmental regulations,
- A duty to be informed of any breaches of the regulations. Saying 'I did not know' or 'we had no way of knowing' is not an acceptable response,
- A responsibility to understand the duty to be informed is a statutory responsibility,
- A responsibility to understand there is a strict duty of environmental care to neighbouring properties and the public and
- A major responsibility of management at all levels for environmental stewardship.

# Environmental Stewardship Cont'd

- Systems need to be developed and functioning properly to protect the environment and HRM did not have these systems in place.
- It is the view of the OAG, organizations have to be fully aware of all components of their systems in order to be able to fully comply with regulations and the Act.
- It is also the view of the OAG, organizations have to be fully aware of the operation of all components of their systems and where gaps exist which may not notify them of losses which are at or above the minimum reportable amounts.
- It is the view of the OAG, Halifax Transit should have been able to say, with confidence, their property was not the source of the spill at the moment the spill was discovered.

# Environmental Stewardship Cont'd

- It is the view of the OAG, environmental regulations are not enacted to find fault or punish, rather they are to protect the environment and the taxpayers from significant unnecessary expenditure.
- It is the view of the OAG, these regulations are written with a variety of systems in mind, but clearly the strong message is an organization has to have appropriate controls in place to be able to immediately notify the Nova Scotia Department of Environment of losses of fuel once a prescribed level is reached.
- The OAG is of the strong view, the ability to detect is key.
- The OAG believes HRM failed in its environmental stewardship.



- Since HRM made the operational decision to have fuel tanks on HRM property, HRM has inherently accepted the operational risk and responsibility to manage the risks associated with this decision.

- Halifax Transit had identified risks related to having fuel tanks in the ground and initiated projects to install new above-ground tanks and remove existing in-ground tanks.
- Engaged outside expertise to design, construct, remove and replace the tanks.
- Projects completed in 2009 and 2013 respectively.
- These projects resulted in infrastructure remaining from the old tank system. The OAG was advised, failure within this infrastructure allowed fuel to leak into the ground.
- It was not a corporate risk management process which had identified the risks or the possible responses to the risks.

- Enterprise Risk Management encompasses documentation of the following in a risk register:
  - Identification of possible risks to the organization,
  - Categorizations of the risks by type (strategic, environmental, regulatory, financial, etc.)
  - The potential impacts of those risks,
  - Who is responsible for managing the particular risk and
  - What processes are in place to manage/monitor the risks.

# Chief Risk Officer

- OAG has recommended implementing a Chief Risk Officer in previous reports.
- Assist the organization in determining its 'risk appetite'.
- Better align strategy, goals and decision making with various risks associated with operations.
- Means to identify where there are gaps in risk identification.

- Means to identify management and monitoring processes which need to be developed.
- Fosters a culture of risk identification and analysis throughout the organization.
- Reasonable to suggest, a Chief Risk Officer would view risks managed by provincial regulation as requiring a higher priority for management and to at least the prescribed minimum.

# Defining Impact

- A properly defined risk management process also aims to identify the possible impact of a particular risk.
- Impact is the effect an event or occurrence has on something which can be negative or positive.
- A fuel leak has a high likelihood of a negative long-term environmental impact.

# Defining Impact

- Fuel is a large expenditure, high impact if environmental damage takes place and there are specific regulatory requirements.
- Therefore – HIGH risk.
- Negative impact can be managed through monitoring and reconciliations.
- OAG identified this monitoring and reconciliation process was not being done effectively.

# Fuel Monitoring

- One very simplistic control to detect inventory errors or deviations is an inventory reconciliation based on quantities.

Inventory Reconciliation					
Beginning Inventory	XXX				
+ Inventory Deliveries	XXX				
- Inventory Usage	(XXX)				
Ending Inventory	XXX	Physical Inventory	XXX	Variance	XXX

- This is a very common business practice to safeguard assets, manage shrinkage and ensure other controls are working as intended.



# Fuel Monitoring

- Halifax Transit advised they review fuel usage (in dollar terms) on a monthly basis.
- OAG advised where the leak occurred during the winter months when there is typically more fuel burned any resulting variances (indications of higher use) were considered reasonable and related to winter temperatures.
- Halifax Transit failed to identify large variances by not using a physical inventory reconciliation.

- Typically when management is reactionary, it is more costly because when the 'unexpected' happens processes are not in place to keep it under control.
- Halifax Transit spill was estimated at 40,000 – 50,000 litres or more per month or 200,000 litres in total.
- Resulted in an estimated \$2.5 million unexpected cost to HRM. Includes the amount paid to external cleanup companies. Does not include the cost of the lost fuel (over \$200,000), any internal costs (legal, management, etc.), any possible third party compensation or qualitative costs related to loss of reputation.
- The OAG was advised HRM has cleaned up the site to levels acceptable to the Nova Scotia Department of Environment (documentation pending).

# Risk Management Implementation

- The OAG is pleased to note (since the writing of this report) the CAO and Director of Finance, CFO presented their draft risk management framework to the Auditor General. This is a clear indication of progress being made by management.
- This framework is a first step in implementing a risk management process at HRM.

- High risk items not being identified.
- No documented risk analysis prepared.
- Appears HRM employees were not fully aware of all applicable regulations.
- There was no one person in charge.
- Risks and impacts of the HRM silo type of administration.
- HRM assigning employees to positions who did not have the required expertise.

- One of the components of good governance is to have oversight over the systems and practices an organization has in place to monitor and mitigate key risks and to ensure compliance with applicable policies, laws, regulations and ethical standards.
  
- HRM Charter – Section 34(3) states:
  - “The Council shall provide direction on the administration, plans, policies and programs of the Municipality to the Chief Administrative Officer”

➤ Overarching Recommendation:

- The OAG recommends Regional Council immediately request management's 'Environmental Protection Framework' which should include all identified risks where there is the potential for the environment to be damaged and the policies and processes in place to either mitigate the risk or deal with events where the environment may have been or was damaged.

- 1.0.1 The OAG recommends HRM Administration initiate a corporate-wide risk management process (ERM – Enterprise Risk Management) starting with the acquisition of the services of a Chief Risk Officer or the equivalent external expertise to manage this initiative.
  
- 1.0.2 In conjunction with Recommendation 1.0.1, the OAG recommends HRM Administration engage Regional Council in discussions around 'risk appetite' to determine the level of risk the Municipality is willing to accept in pursuit of value for the taxpayers of HRM.

- 1.0.3 The OAG recommends, as part of Recommendation 1.0.1, a risk register be developed for Regional Council and a report provided on a regular basis (at least annually) identifying progress on the risk management process as well as the gaps in management of risks which have been identified.
- 1.0.4 The OAG recommends HRM Administration undertake development of an environmental policy which provides Environmental Performance Officers with the appropriate authorities and 'cradle to grave' involvement in projects and in operations impacting the environment.
- 2.0.1 The OAG recommends Halifax Transit management identify more detailed control mechanisms (such as inventory reconciliations, fuel usage per route, fuel usage per bus and week-to-week and month-to-month comparisons) to be used in monitoring fuel usage.



- 2.0.2 The OAG recommends HRM Administration undertake a training program to educate employees involved in fuel related projects and operations on the necessary regulatory requirements.
- 2.0.3 The OAG recommends Halifax Transit complete true inventory reconciliations of fuel inventory for both transit centres. A reconciliation process should include physical inventory readings either electronically or via physical dips. Even electronic readings should be validated with a dip reading, periodically, to ensure electronic readings are still working properly. This reconciliation process should be implemented as soon as possible since additional technology is not needed to complete reconciliations.

# Management Response

RICHARD BUTTS  
CHIEF ADMINISTRATIVE OFFICER



May 19, 2015

Larry Munroe  
HRM Municipal Auditor General  
Belmont House, Suite 620  
33 Alderney Drive  
Dartmouth, Nova Scotia B3J 3A5



**Re: A Performance Review of Risk Management: Fuel Spill at Halifax Transit**

Dear Mr. Munroe:

Thank you for the opportunity to review *A Performance Review of Risk Management: Fuel Spill at Halifax Transit*, which was sent by your office on April 29, 2015. I have read the report, and am in general agreement with the overall content. Based on the recommendations, we will develop a plan to address the primary issues identified in the report.

As noted in this report, as well as some of your previous work, risk management is an important aspect of organizational management. I agree with your focus on risk and want to assure you that HRM Administration takes this issue seriously. Administration has dedicated significant effort to examining the process of risk management and has been actively developing models and approaches to managing risk. In response to a motion of Regional Council, a detailed report on HRM's approach to risk management has been completed and is scheduled to be included on a Council meeting agenda later this month.

In terms of the recommendations which relate specifically to Halifax Transit, administration will continue to work on improvements that will help to avoid future incidents of a similar nature. Some of these mitigation strategies have already occurred or are underway, such as the relocation of the underground fuel tank at the Burnside depot and work toward implementing Transit's comprehensive technology plan.

As always, we will closely consider the material in this report and I will ensure that the municipality continues to develop and enhance effective approaches to managing risk.

Sincerely,

HALIFAX REGIONAL MUNICIPALITY

Original Signed

Richard Butts  
Chief Administrative Officer

**HALIFAX**

Halifax Regional Municipality  
City Hall, 1841 Argyle Street, PO Box 1749  
Halifax, Nova Scotia, Canada B3J 3A5

t. 902.490.4026  
f. 902.490.4044  
halifax.ca

Questions?