

# 2016 Q3 AND Q4 CORPORATE ENVIRONMENT, HEALTH AND SAFETY MANAGEMENT SYSTEMS AND COMPLIANCE REPORT



## SIGNIFICANT EHS INCIDENTS, REGULATORY INFRACTIONS AND AUDIT ACTIVITY

## Overview

Environmental & Safety Management provides corporate governance in environment, health and safety (EHS) management and compliance across The Corporation. This report provides Council with a summary of significant EHS incidents, regulatory infractions and audit results that occurred from July 2016 through December 2016. These incidents, infractions and audit results have been previously reported to members of the Administrative Leadership Team.

## Significant incidents

For reporting purposes, a significant EHS incident has been defined as:

- A hazardous or dangerous materials spill/release with the potential to compromise the integrity of environmental assets.
- An incident or worker injury that is reportable to Alberta Occupational Health and Safety as per the *Occupational Health and Safety Act*.
- An event that may represent potential liability concerns or reputation risks to The City.
- Collapse or upset of heavy equipment or building component.
- Incidents with likelihood of significant regulatory interaction.

The significant incidents in Q3 and Q4 2016 are described below.

### Release to the Bow River

On 2016 July 24, Calgary Fire Department attended a fire at an automotive repair shop. During the course of the fire, an oil tank ruptured and approximately 400 litres of oil were released into the Bow River via a storm sewer outfall. As an immediate response, The City set up booms at the outfall to contain the oil.

River clean-up work was carried out from 2016 July 24 to 27. Analytical results showed minimal impacts to the river water quality. The spill response and remedial workplan was accepted by Alberta Environment and Parks on 2016 July 27 and no further work was required.

### C-Train derailment

On 2016 September 20, a three-car CTrain derailed at the end of Tuscany Station with the CTrain operator and three passengers on board. Emergency Services transported the CTrain operator to the hospital. The passengers were not injured.

For the purposes of conducting an investigation, the Alberta Occupational Health and Safety (OHS) Lead Investigator issued a Stop Work Order to The City. Approximately four hours later, the OHS Lead Investigator lifted the Stop Work Order and returned control of the Tuscany CTrain Station back to The City.

The Alberta OHS investigation is ongoing and is expected to conclude in 2017 December. Calgary Transit has conducted its own detailed investigation and is in the process of implementing several corrective actions. Corrective actions being undertaken include installation



of a magnetic train stop at the end of the line, installation of a more prominent visual indicator that the operator is at the end of the line, and a review of procedures for operators entering the end of the line.

## **Plastic pellets in the Bow River**

RiverWatch, a non-profit public outreach organization, identified large quantities of plastic pellets along the banks of the Bow River in mid-September 2016. The City collaborated with RiverWatch, Alberta Environment and Parks, and the Canadian Plastics Industry Association to investigate. It was determined that the pellets were being released from a storm outfall. The City responded immediately by installing booms outside and inside the outfall, and started to trace backwards in the system to identify the source.

The collaborative investigation determined that pellets had spilled onto the rooftop of an industrial plastics facility and were being flushed down the rooftop storm drains and into The City's storm collection system during heavy rain events. The facility was not owned or operated by The City.

The facility operators acted quickly to clean the residual pellets from their rooftop and storm system, and The City flushed the storm system between the facility and the storm outfall. The facility operator contracted an environmental consultant and RiverWatch to develop a remediation plan for the Bow River, working under advisement from The City and Alberta Environment and Parks. Clean up efforts focused on the areas of highest pellet density along both banks of the river. The City is currently in discussion with Alberta Environment and Parks, RiverWatch and the facility operator's environmental consultant to determine what, if any, further remediation efforts are required in 2017.

## **Contractor struck by pipe**

On 2016 November 6, an employee of a contractor was struck by a section of a 350 metre length of pipe. The pipe was being dragged by heavy equipment along the ground from a staging area to a trench where it was to be installed. The worker sustained leg injuries that required a hospital stay.

Alberta OHS was advised of the incident. Two demands were issued by Alberta OHS. The first was for site investigation and related documents, which were provided to Alberta OHS on 2016 November 7. The second demand was for the final incident investigation report, which was provided on 2016 November 21. No further orders or demands have been received.

The incident investigation resulted in a review of existing procedures with affected employees and contractors on site and the development of a new Safe Work Procedure for the specific task of transporting pipe at the site.



## **Propane line rupture**

On 2016 November 12, a propane tank was struck by a bobcat while the operator was clearing weeds. The tank tipped over and the bobcat bucket hooked onto the propane line, causing the line to rupture.

An unknown volume of propane vented to the air. The propane in the damaged line vented to the air; however, the propane in the tank was prevented from venting by the safety features of the tank's regulator system. The release took place over a period of 1.5 hours while the area was evacuated and the Calgary Fire Department was dispatched to stop the gas leak.

Concrete barriers have been installed to prevent vehicles and equipment from colliding with the tank in the future and work in the tank area will now be restricted to refilling activities conducted by the propane contractor.

## **Regulatory infractions**

One regulatory infraction was reported by The City's business units for 2016 Q3 and Q4.

## **Flammable waste storage**

The Calgary Fire Department was invited to conduct an inspection of buildings used by The City to store and process household hazardous waste and paint waste. The inspection showed that the heating, ventilation, lighting and electrical services within the buildings were not suitable for household hazardous waste and paint management activities. The Calgary Fire Department issued a Cease and Desist Order to stop the operations.

As an immediate response, household hazardous waste and paint waste were temporarily relocated. An assessment of the building condition recommended The City consider building a new facility that can properly handle the different types of hazardous materials and the increasing volumes collected. The City is evaluating the recommendation and considering different operational options.

## **Audit activity**

### **Environmental audit activity**

The City's environmental management system is based on the ISO 14001 international standard for environmental management. The City holds 10 business unit level ISO 14001 registrations. Internal and external audits must be conducted to maintain the ISO registrations. Internal audits assess conformance to the ISO 14001 standard, as well as compliance with regulatory and other legal requirements. External audits are conducted by an independent third-party auditor who also assesses conformance to the ISO standard, including the effectiveness of the internal audit program and the process for evaluating regulatory compliance. Five internal and seven external audits were conducted between 2016 July 1 and December 31.



All audited business units maintained their respective ISO 14001 registrations in Q3 and Q4 2016. No major management system non-conformities were identified by the internal or external audits. Several minor management system non-conformities and opportunities for improvement were identified, particularly related to operational control (30 per cent of findings) and the correction and prevention of non-conformities (14 per cent of findings).

Internal audits also include an evaluation of compliance. The compliance evaluations conducted in 2016 Q3 and Q4 did not identify any high-risk non-compliance findings. Five medium and low-risk non-compliances were identified. Non-compliance issues were related to sediment control, labelling and signage for chemicals and wastes, and record keeping.

Non-compliance findings and management system non-conformities have been reported to the ALT. Most of the audit findings have already been addressed. Business units are currently developing and implementing actions to correct the remaining non-compliances and non-conformities. The corrective actions will be reviewed and assessed for effectiveness and implementation in 2017.

Examples of positive management practices and initiatives noted during the internal environmental audits include:

- Repurposing of post-consumer materials in art projects at one of The City's art centres.
- Investment in solar panels and rain water collection at fire stations.
- Infrastructure installed to reduce dust and mud tracking at the Shepard Soil Recycling Centre.
- Development of a guide for sustainability considerations in bridge construction.

## **Occupational health and safety audit**

The City participates in the provincial Partnerships in Injury Reduction program, which requires an external OHS management system audit every third year to re-qualify for a Certificate of Recognition (COR). The City was audited between 2016 May 30 and July 28. The City received the audit report in 2016 September. A passing score of 87 per cent was achieved. The City's highest scores were achieved in the areas of organizational commitment, orientation and training. Key opportunities for improvement were related to incident investigations and identification and reporting of hazardous conditions and near-misses. An action plan is being developed to address opportunities for improvement. As in previous years, implementation of the action plan will be monitored and progress reports will be provided throughout 2017 to senior management. Annual reports on the action plan will also be submitted to the certifying body.