

2016 Q1 AND Q2 CORPORATE ENVIRONMENT, HEALTH AND SAFETY MANAGEMENT SYSTEMS AND COMPLIANCE REPORT



**SIGNIFICANT EHS INCIDENTS, REGULATORY
INFRACTIONS AND AUDIT ACTIVITY**



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1. OVERVIEW

Environmental & Safety Management (ESM) provides corporate governance in environment, health and safety (EHS) management and compliance across The Corporation. ESM maintains a monthly monitoring and reporting program to provide members of the Administrative Leadership Team (ALT) with advisory reports on significant EHS incidents, regulatory infractions and audit results. This 2016 Q1 and Q2 Corporate Environment, Health & Safety (EHS) Management Systems and Compliance Report provides Council with a summary of the significant EHS incidents, regulatory infractions and audit results that were reported to ALT members for 2016 January through 2016 June.

2. SIGNIFICANT INCIDENTS

Three significant EHS incidents were reported for 2016 Q1 and Q2. A significant EHS incident is 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 three significant incidents in Q1 and Q2 are described in subsections 2.1 to 2.3, below.

2.1 RELEASE TO BOW RIVER

On 2016 January 29, while monitoring and sampling at a storm outfall, City crews smelled a strong odour and observed a light green-coloured turbid discharge entering the Bow River. The discharge was observed to be causing a plume in the river. The release was reported to Alberta Environment and Parks. The green colour was determined to be the result of an algal bloom occurring in a storm water pond; the odour was due to hydrogen sulfide-rich hypoxic water from the pond. Water from the pond was entering the storm system and ultimately discharging to the river.

As a precautionary measure until the source and quality of the green turbid water could be determined, an emergency lift station was installed to divert water from the storm system into the sanitary system and stop any further release to the river. The emergency lift station was removed after analytical results indicated the water was not a health risk or deleterious to the river and the consent of the regulator was received.

A subsequent study of this pond indicated that a lack of water circulation has prevented the lower depths of the pond from receiving oxygenated water, creating an environment where the natural biological breakdown of organic matter results in the release of odourous gas. The City is preparing to



install a slide gate to allow for the isolation of this pond in the future, as well as a method to increase water circulation in the pond to reduce the generation of odourous gas. Both solutions are anticipated to be in place by fall 2016.

2.2 FALL FROM STEP LADDER

On 2016 June 2, an employee was injured while conducting a pre-trip inspection of a truck. The employee was standing on a step ladder next to the truck when the ladder was struck by another vehicle causing the employee to fall to the concrete floor. The employee sustained a concussion and laceration to the back of the head, resulting in a lost-time claim.

Alberta Occupational Health and Safety (OHS) was notified of the incident and attended the scene. Alberta OHS issued a demand to carry out an investigation and provide a copy of the report. An investigation was conducted and compliance to the Alberta OHS demand was met. Several corrective actions have been developed and implemented to prevent similar incidents in the future.

2.1 RELEASE TO STORM SEWER

On 2016 June 21, two roadways were oiled prior to a rain event. Weather forecasting indicated that the probability of rain was low. The roadways were oiled to prepare for paving, which was scheduled to occur within 24 hours of oiling. During the rain event, the oil entered the storm sewer system and plugged several catch basins on the roadway.

City crews responded to the release. The storm sewer system, including the affected catch basins, was power-flushed and hydro-vacuumed. The contaminated water was collected and disposed in a hazardous waste lagoon at a City landfill. The release was reported to Alberta Environment and Parks.

To prevent similar incidents in the future, a new Standard Operating Procedure (SOP) detailing environmental practices to be followed during paving activities has been developed. The SOP details the necessary environmental considerations for paving including weather forecasting, use of absorbent devices, and actions to be taken in the event of a release. Relevant employees will be trained on the SOP.

3. REGULATORY INFRACTIONS

No health and safety or environmental regulatory infractions were reported by The City's business units for 2016 Q1 and Q2.

4. AUDIT ACTIVITY

The City's environmental management system is based on the ISO 14001 international standard for environmental management. The City holds 12 business unit level ISO 14001 registrations. In addition, Fleet Services holds an integrated registration for ISO 14001, ISO 9001, and OHSAS 18001. Internal and external audits must be conducted to maintain the ISO registrations. Internal audits assess conformance



to the elements of the ISO 14001 standard as well as compliance to regulatory or legal requirements. External audits are conducted by an independent third-party auditor and assess conformance to the ISO standard including the effectiveness of the internal audit program and the process for evaluating regulatory compliance. All audited business units maintained their respective ISO 14001 registrations in 2016 Q1 and Q2.

The City also participates in the provincial Partnerships in Injury Reduction program, which requires an external occupational health and safety (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 expects to receive audit results in 2016 September. Upon receipt of audit results, an action plan will be 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 the year to senior management. Annual reports on the action plan will also be submitted to the certifying body.

Seven audits were conducted between 2016 January 1 and June 30:

- Four internal environmental management system and compliance audits were completed by City staff for Waste & Recycling Services, Supply Management, Calgary Parks and Roads.
- Two external environmental management system audits were conducted by The City's external registrar for Water Services & Water Resources and Calgary Transit.
- One external combined environmental and OHS management system audit was conducted by The City's external registrar for Fleet Services.

4.1 MANAGEMENT SYSTEM NON-CONFORMITIES

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 and have been reported to members of the Administrative Leadership Team. Most of the minor non-conformities have already been addressed and business units are currently developing and implementing actions to correct the remaining non-conformities.

4.2 NON-COMPLIANCE FINDINGS

Three regulatory non-compliance findings were identified via the internal environmental audit program:

- Supply Management: Several containers and totes of flammable liquids (>600L) were stored in a room that was not equipped with a sprinkler system. The Alberta Fire Code requires that general storage areas with >600L of flammable liquids in containers be sprinklered.
- Parks: A fuel storage container was observed without proper "no smoking" signage.
- Roads: Dedicated bins for used oily rags were incorrectly labeled as "non-regulated waste". Since used oily rags are classified as hazardous recyclables, the label should indicate "hazardous recyclables" instead of "non-regulated waste".



Specific corrective action plans have been developed to address each of the audit findings. The corrective actions will be reviewed and assessed for effectiveness and implementation during the 2016 audits.

4.3 POSITIVE MANAGEMENT PRACTICES

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

- Waste & Recycling Services' new "Project Manager Environmental Requirements" training informs project managers of the environmental requirements relevant to their positions and allows for sharing of knowledge and lessons learned between project managers.
- Fleet Services shop floor personnel had a strong level of involvement in reviewing Fleet's strategic environmental, safety and other actions associated with Action Plan during the annual Business Plan update sessions.
- Calgary Parks introduced a pilot program for weed control using goat grazing. In addition, Parks has continued to use the insect biocontrol as a non-chemical alternative for the control of some legislated weed species.
- Calgary Parks continues to implement a number of strategic action plans and procedures to address biodiversity, including BiodiverCity (2015), the Habitat Restoration Project Framework (2014), ReTree, Ecological Inventory Framework (2016), and a Habitat Condition Rating tool.