 THE CITY OF CALGARY ENVIRONMENTAL & SAFETY MANAGEMENT	2015 Q1 and Q2 CORPORATE ENVIRONMENT, HEALTH & SAFETY MANAGEMENT SYSTEMS AND COMPLIANCE REPORT
	Reporting period: 2015 January 01 to 2015 June 30

Significant Incidents

- January – Corporate Properties & Buildings
A subcontractor cut into a main electrical line (25k volts) while cutting concrete in a basement electrical vault. The line strike caused a flash of light and a five second power outage to City Hall.


The operating procedures of the subcontractor were reviewed. The basement floor had been scanned twice for utility lines. Going forward, the utility provider will complete a bump test in addition to the utility scans prior to any concrete cutting work within City buildings.

- February – Water Resources & Water Services
A release of wastewater into Nose Creek occurred due to overflow from a sanitary manhole. City crews responded to the release immediately, installed a boom near the manhole to capture solids, and deployed equipment to clear the choked sanitary line and stop the release. The City conducted water quality testing as per regulatory approval requirements. Regulators were notified of the incident within the prescribed timeframe.

The City followed the established protocol in responding to the release. A debrief on the incident determined that a metal manhole step had dislodged, resulting in the choking of the sanitary pipe. Follow-up actions to improve future incident response included enhancing internal and external communications, investigating opportunities for emergency access to critical sanitary infrastructure and improving emergency response procedures.

A warning letter was received from Environment Canada for a contravention of the Fisheries Act. Water Services responded to the letter and is working on actions to prevent incidents in the future. Water Services will be updating Environment Canada on the status of these actions.

- March – Water Resources & Water Services
Two sanitary sewer line releases resulted in wastewater entering the stormwater system and subsequently to the Bow River through an outfall. Upon discovery, City crews immediately closed the outfall gates to stop the release and set up an emergency lift station. Rising water levels in storm ducts during the event required an outfall gate to be opened temporarily during the incident in order to avoid residential flooding. Water samples were collected and tested in accordance with regulations. The source of the releases was identified, isolated and repaired. The stormwater system was flushed upstream of the outfall and the resultant wastewater vacuumed out for proper disposal. Regulators were notified of the incident within the prescribed timeframe.

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- June – Waste & Recycling Services

A City employee operating a side loader truck struck a power pole while reversing the truck. The transformers below the cross arm at the top of the pole fell on the truck. The employee remained in the cab of the truck and contacted the supervisor while making sure others in the area stayed away from the impacted area. The fire department and police responded quickly and secured the area until ENMAX arrived. ENMAX isolated the power and the operator was able to safely exit the cab. There were no injuries as a result of the incident. The truck was put out of service and towed to the Fleet Services mechanic shop to perform a Commercial Vehicle Inspection and full inspection to ensure no damage occurred as a result of the contact with energized lines.

An Alberta Occupational Health and Safety (OHS) lead investigator contacted Waste & Recycling Services to request a brief summary of the incident. The investigator was satisfied with the information and advised that an OHS Compliance Officer would conduct an unannounced general inspection of the worksite in the future.

- June – Water Resources & Water Services

A contractor made contact with a “live” point resulting in an electric arc-flash. The contractor sustained burn injuries to his hands and was transported the hospital by ambulance. The contractor was released the same day. Alberta OHS was notified and the agency issued a Stop Work Order. The Stop Work Order was lifted later the same day.


An investigation was completed and corrective and preventive actions implemented. Corrective and preventive actions included repairing and installing a protection plate, meeting with OHS inspectors to discuss best practices on contractor safety management, and reviewing risk assessment practices.

Regulatory Infractions

- April – Water Resources & Water Services

Alberta Environment and Sustainable Resource Development (now Alberta Environment and Parks [AEP]) issued an Administrative Penalty to The City in relation to a wastewater release which occurred between May 6 and 10, 2013. It was determined that an unauthorized release of wastewater in an amount exceeding the approval limits had occurred, and grab samples of the untreated wastewater were not collected. This was a contravention of the *Environmental Protection and Enhancement Act*. The preliminary Administrative Penalty amount of \$14,500 was reduced to \$12,500, primarily based on the steps that Water Services took to minimize the risk of a recurrence.

Following the incident investigation, a number of corrective and preventive actions were completed, including:

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- instrumentation changes for improved and continuous monitoring of gate position and flow rates to the treatment plants and within the bypass channel;
 - upgrades and improvements to the alarm system; and
 - development and delivery of a two-day training course for plant operators on the new controls.
- June – Water Resources & Water Services
AEP was notified by The City that extraction wells located on a contaminated City site were diverting groundwater after the *Water Act* licence to do so had expired. The extraction wells form part of the hydraulic controls for the containment system preventing the migration of contaminants to the Bow River. Groundwater diverted from areas of contamination is treated on-site prior to being discharged to the sanitary sewer system. AEP instructed the City to submit an application for a Temporary Licence to Divert Water, as well as an Approval for the operation of the groundwater treatment system. Approval and Licence applications were submitted to AEP on August 7, 2015. AEP is aware that the The City is continuing to divert groundwater without a licence until new one is issued.
 - June – Calgary Transit
An Alberta Occupational Health and Safety (OHS) Officer responded to an indoor air quality complaint. The Officer was satisfied with the information provided and the results of air quality testing. However, during the observation tour, five other findings were identified:
 - a safeguard was missing on a compressor motor belt;
 - a walkway was blocked with material and equipment;
 - several racks were not secured and safety pins were missing at several racks;
 - an oxygen cylinder was left unsecured; and
 - records of daily inspections of underground hoists were not maintained.
 Corrective actions have been developed and implemented by Transit.

Audit Activity

The City's environmental management system is based on the ISO 14001 international standard for environmental management. The City holds 11 business unit level ISO 14001 registrations. Fleet Services holds an integrated registration for ISO 14001, ISO 9001, and ISO 18001. A requirement of registration is to have both internal and external audit programs. Internal audits assess conformance to the elements of the ISO 14001 standard as well as compliance to regulatory or legal requirements. External audits assess conformance to the ISO standard including the effectiveness of the internal audit program and the process for evaluation of regulatory compliance.

Seven audits were completed between January 1 and June 30, 2015:

- Three internal ISO 14001 audits/compliance audits were completed by City staff for Roads, Recreation, and Supply Management.
- One combined internal ISO 14001, 9001, and 18001 audit was completed by an external consultant for Fleet Services.

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- Two external re-registration audits were conducted by The City's external Registrar for Water Resources and Water Services and Calgary Transit.
- One combined external surveillance audit for ISO 14001, 9001 and 18001 was conducted by The City's external Registrar of Fleet Services.

One major non-conformity was identified by the external audit program:

- Fleet Services: The process for maintaining and implementing vehicle lock-out/tag-out requirements as documented in the Fleet Services directive and procedure was not followed in one instance.

One regulatory non-compliance finding was identified by the internal audit program:

- Roads: No fire extinguishers were observed in the salt tent at the Southeast Saddleridge depot.

All audited business units maintained their respective ISO 14001 registrations. Specific corrective and preventive action plans are being developed for each of the non-conformance and non-compliance findings identified by the audits. The corrective actions will be reviewed and assessed for effectiveness and implementation during the 2016 audits.

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

- Fleet Services has conducted and documented response drills for several different potential emergency scenarios.
- Supply Management staff are required to routinely review and confirm the location of a product and associated material safety data sheet (MSDS) chosen randomly on a monthly basis. This practice helps staff who are involved with handling chemicals improve familiarity with the online MSDS system and chemical storage procedures.
- Transportation Department business units have coordinated the development of their environmental aspects, and objectives and targets, improving communication and ensuring that overall Departmental targets are aligned and assigned to the appropriate business unit.
- Roads encourages information sharing between municipalities through direct communication and online webinars. A new initiative named "InRoads" will provide a webinar platform for staff across the corporation and municipalities to share their ideas on improved operations and practices.
- Water Resources & Water Services rank environmental aspects both before and after controls to show the effectiveness of environmental controls.