
 <p>THE CITY OF CALGARY ENVIRONMENTAL & SAFETY MANAGEMENT</p>	2013 Q3 and Q4 CORPORATE ENVIRONMENT, HEALTH & SAFETY MANAGEMENT SYSTEMS AND COMPLIANCE REPORT
	Reporting period: 2013 July 01 to 2013 December 31

Contents	
Significant Incidents	2
Legislation Update	4
Audit Activity	5


 <p>THE CITY OF CALGARY ENVIRONMENTAL & SAFETY MANAGEMENT</p>	<p>2013 Q3 and Q4 CORPORATE ENVIRONMENT, HEALTH & SAFETY MANAGEMENT SYSTEMS AND COMPLIANCE REPORT</p> <hr/> <p>Reporting period: 2013 July 01 to 2013 December 31</p>
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Significant Incidents

A significant incident is defined as:

- A hazardous or dangerous materials spill/release;
 - An incident or worker injury that is reportable to Alberta Occupational Health and Safety as per the Occupational Health and Safety Act;
 - An event with the potential to compromise the integrity of environmental assets, and/or that may represent potential liability concerns or reputation risks to The City;
 - Collapse or upset of heavy equipment or building component, or regulatory infractions or incidents with likelihood of significant regulatory interaction.
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- July – Roads
 - Flooding of the Bow River in late June caused damage to a section of Heritage Drive SE under the Glenmore Trail Bridge (Graves Bridge). During the excavation of the roadway to re-build the sub base, contamination was discovered, including pieces of car batteries and other debris. Soil sampling and testing confirmed the presence of elevated levels of Polycyclic Aromatic Hydrocarbon (PAHs) and metals in the soil. The discovery was reported to Alberta Environment and Sustainable Resource Development (AESRD). Alberta Health Services and AESRD both attended the site.
 - In response to this incident, consultants were hired to assist with a subsurface investigation as well as the earthwork and continuous dewatering during repairs to the road. A report summarizing the remedial activities completed within The City's road right-of-way was entered into The City's internal Site Information Mapping System (SIMS) database for reference if there is work in the area in the future. Excavated waste materials were hauled to a Class I landfill for appropriate disposal of hazardous material.


 - September – Roads
 - A spill of approximately 10,000L of bitumen occurred within the secondary containment area of the bitumen tanks at the Asphalt Plant at Manchester Centre. No bitumen escaped the secondary containment area. An inlet valve into a tank was left open when it should have been closed as the tank was already full.
 - Roads contacted the regulator, AESRD, who deemed the event to be a non-emergency, requiring no further action.
 - The bitumen was allowed to cool and solidify over several days. It was then dug out by hand and transported to the Asphalt Plant to be used in recycled asphalt. A review of standard operating procedures was completed and a new procedure was developed on how to circulate oil with more direction on potential environmental concerns, spill controls and disposal of waste materials.

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- September – Water Resources & Water Services
 - A contractor performed repair work on four outfalls without the proper notifications under the *Water Act* Code of Practice for Outfalls. Three of the outfalls were located on the Bow River and one on the Elbow River. The outfalls were damaged during the flood event in June.
 - A report outlining the incident and corrective actions taken was prepared and submitted to the regulator, AESRD. The report was accepted by AESRD with no request for further information or action items.

- October – Waste & Recycling Services
 - A Waste & Recycling Services (W&RS) employee was collecting residential blue cart recycling material when the amount of material in the hopper caused the packer blade to jam. The employee attempted to dislodge some of the material from atop the hopper when the employee's leg slipped into the hopper area, at which time the packer began an automatic cycle catching the employee's leg. The employee was transported to the hospital by ambulance and Alberta Occupational Health and Safety (OHS) was notified of the incident.
 - In response to this incident, OHS has issued two Demands and two Orders related to the incident. An OHS Demand differs from an OHS Order in that it is not appealable to the provincial OHS Council.
 - The Demands required The City of Calgary to complete an investigation of the incident and provide a copy of the investigation report, associated background documents and planned corrective and preventative actions to prevent a recurrence. On 2014 January 8, The City was informed by OHS that both Demands have been met and closed.
 - The first Order was to stop using the truck, pending verification to OHS that the equipment is operating as per manufacturers' specifications. The second Order required The City of Calgary to provide in writing to OHS how it will ensure that the scenes of reportable injuries and incidents are not disturbed in the future. The City met the deadlines for both Orders.

- October – Water Services
 - During clean-up operations within an open vessel at the Bonnybrook Wastewater treatment plant, a Water Services utility employee assisting a co-worker in positioning an empty tote bag, slipped and fell to the ground on the same level. This resulted in a hip injury requiring surgery and an estimated three month recovery period. Alberta Occupational Health and Safety (OHS) was contacted and issued a Demand Report. The completed investigation report was delivered to OHS on 2013 November 8, meeting the deadline.
 - The root cause of the incident was determined to be a failure to apply the necessary controls to remove the identified slip hazard (wet sand) from the work area. The direct cause was a sudden and unanticipated event of the

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employee's foot slipping, resulting in a fall. Preventative measures have been implemented to reduce the risk of a recurrence.

- **October – Water Resources & Water Services**
 - It was determined that the effluent sampler at Pine Creek Wastewater Treatment Centre was not collecting samples in accordance with its Wastewater Approval between October 2008 and October 2013. Final effluent samples were being collected in a timed mode rather than at a rate proportional to the flow rates per the requirements of the Wastewater Approval. Wastewater treatment was not affected during this period.
 - The deficiency was noted on 2013 September 3 and corrective actions were initiated to ensure that the sampling methodology met regulatory requirements. AESRD was notified of the issue and the planned corrective actions. On 2013 October 3 all necessary parts were installed to allow for flow proportional sampling and effluent samples were being collected in accordance with Wastewater Approval.
- **December – Water Resources & Water Services**
 - A scheduled worksite inspection was undertaken by Alberta Occupational Health and Safety (OHS) at Manchester Building M. At the time of inspection, the OHS officer determined that some workers were unaware of the employer's policy on workplace violence.
 - Alberta OHS issued an Order indicating that the employer must ensure that workers are instructed in how to recognize workplace violence, the policy, procedures and workplace arrangements that effectively minimize or eliminate workplace violence, the appropriate response to workplace violence, including how to obtain assistance, and procedures for reporting, investigating and documenting incidents of workplace violence.
 - Water Services & Water Resources have implemented corrective and preventative actions to increase awareness of The City's policy on workplace violence and procedures to eliminate it. The OHS Order has been closed.

Legislation Update

Effective 2013 October 1, anyone regulated by workplace health and safety legislation is subject to administrative penalties for chronic disregard for workplace safety. This applies to individual leaders and employees, The City of Calgary, contractors and suppliers. Penalties are to a maximum of \$10,000 per day of the violation.

Starting on 2014 January 1 individual supervisors and employees are subject to on-the-spot fines for violating workplace health and safety legislation. Fines will be issued by provincial health and safety officers for observable violations, such as not wearing fall protection when working at heights, and will range from \$100 to \$500. All fines will be

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investigated to determine root causes of the infraction to allow systemic issues to be addressed corporately.

Audit Activity

Occupational Health and Safety

The City completed a corporate-wide Certificate of Recognition (COR) safety system audit in May of 2013. The audit was completed by external consultants. The final report was received in October 2013 in which The City scored 89 percent. A passing grade of at least 80 percent is required to maintain the COR in association with the provincial Partnerships in Injury Reduction (PIR) program.

Environment


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. A requirement of registration is that there is both an internal and external audit program. 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.

Ten audits were completed during the reporting period of 2013 July 01 to 2013 December 31:

- Five internal combined ISO 14001 audits/compliance audits were completed by City staff:
 - Roads, Water Resources & Water Services, Recreation, Waste & Recycling Services, Supply Management.
- Five external surveillance audits were conducted by The City's external Registrar PricewaterhouseCoopers (PwC):
 - Parks, Roads, Calgary Fire Department, Transportation Infrastructure, Recreation, and Waste & Recycling Services.

In regard to regulatory compliance, one area requiring improvement was identified at Shouldice Athletic Park, where some jerry cans containing fuel were not properly labeled, and two small volume fuel tanks required drip pads. All audited business units maintained their respective ISO 14001 registrations.

Specific corrective and preventive action plans are being developed for each of the minor nonconformities (gaps in the elements of the management system) highlighted by the audit findings. The corrective actions will be reviewed and assessed for effectiveness and implementation during the next scheduled audits throughout 2014 for the affected business units.

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Positive management practices and initiatives noted during the audits include:

- Roads
 - Roads has developed and implemented an advanced road sander calibration system to better manage and optimize the amount of sand applied to Calgary roads.
- Water Resources & Water Services
 - Well managed and organized environmental monitoring, training and compliance record-keeping are in place.
- Parks
 - The management review process for environmental performance was conducted successfully despite serious communication challenges caused by the impacts of the flood event in June.
- Waste & Recycling Services (W&RS)
 - W&RS is making significant investments in environmental performance at their landfill sites. Examples at the Shepard landfill include an extensive project to improve stormwater management; road paving for improved dust suppression; a project to increase capacity for landfill gas capture; and a study of the cap system on inactive landfill areas to determine if improvements are required.
- Recreation
 - The environmental management system is closely aligned with management of operations and business activities.
- Supply Management
 - All employees interviewed showed a high level of environmental awareness, knowledge of procedures, and the recently implemented online material safety data sheet (MSDS) system.
- Calgary Fire Department
 - Good knowledge of environmental aspects of operations and associated operational controls was observed by staff at Fire Station Number 7.
- Transportation Infrastructure (TI)
 - TI demonstrated a substantial improvement in their compliance with the requirement to complete Environmental Construction Operation (ECO) Plans and Erosion and Sediment Control (ESC) Plans for projects prior to initiation of construction.