2016 SAFETY AWARD – BIGGEST SAFETY IMPROVEMENT
City of Hamilton, Operations Division
Title: WASTE MATTERS – HEALTH, SAFETY & WELLNESS PROGRAM

Jurisdiction: City of Hamilton, Ontario
Population: 545,000
Contacts: Colin Vidler, 905-546-2424 Ext. 4770, Colin.Vidler@hamilton.ca, SWANA #78956
Raffaella Morello, 905-546-2424, Ext. 3926, Raffaella.Morello@hamilton.ca
City of Hamilton Overview

The City of Hamilton (City) is located on the southwestern tip of Lake Ontario, between Niagara Falls and Toronto. The City covers an area of 112,835 hectares (278,822 acres) which includes a mix of urban, suburban and rural communities. Hamilton has a population of approximately 545,000 residents and is the eighth largest city in Canada. The City provides a wide range of services for the public and has approximately 9,000 municipal employees working in a broad range of disciplines including waste management.

The City provides waste collection services to a broad span of customers including single-family residential properties, multi-residential apartment buildings, municipal buildings, commercial properties, and elementary and secondary schools. The City’s collection services are provided using a blend of both municipal staff for approximately half the City and collection contractor for the other areas of the City.

Executive Summary

The City of Hamilton (ON) recognizes the importance of promoting and maintaining the physical and mental health of its employees. Waste collection historically has been a sector that faced significant risks to employees. Based on staff feedback, the City’s Waste Collection Section developed an innovative health, safety and wellness program for its Waste Collection employees known as “Waste Matters”.

This multi-faceted program includes a wide range of services and activities geared towards creating a healthy and safe environment for employees. The program’s objectives is to reduce risks to employees’ health through safe work practices, creating healthy work environments, building employees’ skills, and health promotion.
Health Risks in Waste Collections

Waste collection is an industry that faces significant risks to employees. These risks often contribute to high incidence of injuries. Some health risks in waste collection include:

> Physical demands such as repetitive motions, and lifting heavy containers. Waste collection employees need to be physically fit in order to be able to handle the physical demands of the job.
> Environmental conditions such as working in all types of weather including heat, cold, snow, rain. With Canada’s climate changes, there are significant risks for slips and falls particularly with icy or rainy conditions.
> Social considerations such as dealing with members of the public. In some cases, crews can face verbal or physical abuse from irate residents.
> Waste collection operators face constant traffic hazards since they have to work within the road allowance.
> Other hazards in the workplace include “sharps” such as needles and broken glass, stinging insects, unleashed dogs, and potential chemical exposure from waste materials.

“WASTE MATTERS”

Waste collection is a highly specialized essential service provided by the City for its residents. Hamilton’s Waste Collection Section experiences a significantly higher number of injuries compared to other City departments which is attributed to the higher risk environment and physically demanding work requirements that involves heavy lifting, repetitive motions, and working in all weather conditions. The City needed to develop an innovative program to address the health and safety concerns for the Waste Collection Section.

Through consultation with various staff teams and union members, the City implemented its “Waste Matters” health, safety and wellness program for its waste collection employees. “Waste Matters” includes a broad range of initiatives to focus on employee wellness with the goal of decreasing worker injury rates and supporting safe operations. This program consists of several key elements:

> workplace safety improvements,
> safety training and ongoing education,
> promoting employee wellness,
> supporting a positive work environment; and
> fleet initiatives and new technology.

The “Waste Matters” health, wellness and safety program incorporates services offered corporately and those which are specifically designed for the Waste Collection Section’s unique work environment.

Hamilton’s Workplace Culture

The City of Hamilton believes in creating and maintaining a workplace culture dedicated to achieving a goal of zero workplace injuries and illnesses. Hamilton’s health and safety management system requires all employees have responsibility for supporting and maintaining a safe and healthy workplace. This model promotes collaboration between management and front line staff in achieving and implementing health and safety initiatives.
WORKPLACE SAFETY

Overview - The City of Hamilton makes every effort to provide a safe and healthy work environment by ensuring there are processes and tools in place so that staff can work in a safe manner.

What is a Healthy Workplace?

A healthy workplace is one in which workers and managers collaborate to use a continuous improvement process to protect and promote the health, safety and well-being of all employees. A healthy workplace integrates the following elements to achieve optimal health of its employees and its services:

> Occupational health & safety - The physical work environment must be safe and healthy. Items faced in the workplace include potential exposure to health hazards, safety, and quality of equipment.

> Organizational culture – The workplace support environment has an impact on the mental and physical health of employees.

> Personal health practices – Employers should support healthy lifestyles among employees. There are opportunities for community participation to improve the health of workers, their families, and other members of the community.

Joint Health and Safety Committees

The City of Hamilton has Joint Health and Safety Committees (JHSC) which are an essential component of the City’s health and safety program. There is a JHSC within each City operating division including Waste Management. The JHSC is made up of qualified and dedicated employees with the goal of making each workplace a safer place to work. Committee members receive training to become certified JHSC members. The objectives of the JHSC are to identify potential hazards, evaluate these potential hazards, recommend corrective action to management, and follow-up on those recommendations. Each JHSC meets regularly and conducts monthly workplace inspections. The JHSC reviews all incident reports from each workplace. JHSC members are also available to receive employee concerns, and to make recommendations on corrective action. The JHSC also ensures that health and safety initiatives are on target and are effective in preventing injuries.
Physical Demands Analysis

In 2014, the City completed a Physical Demands Analysis (PDA) for the Waste Collection Operator position. The PDA is an ergonomic analysis of the physical requirements to collect various waste materials in different environments such as compact City streets and rural areas. The PDA provides valuable information on the physical requirements to perform the Waste Collection Operator’s daily requirements. The PDA has allowed staff to implement appropriate controls including ergonomic training, driver training, new technology, and purchasing requirements for new equipment.

Safety Spot Checks

Spot checks are performed on all waste collection crews during the course of their work. The spot checks are conducted at random throughout each month. The spot checks observe operator activities including safe driving practices, proper lifting techniques, ensuring employees have the appropriate personal protective equipment, the vehicle has all mandatory operating supplies, and ensures that the employees are in appropriate physical and mental condition.

Health and Safety Monthly Reports

The City issues monthly health and safety reports to provide each Division with a tool to assist them in identifying and analyzing incident trends in their workplaces. The monthly health and safety report provides each Division with a breakdown of each incident and includes a summary of the number of lost time accidents, number of days lost, number of incidents requiring medical aid, hazard reports, and type of injuries sustained. These reports are reviewed by the management team so that corrective actions can be implemented.

<table>
<thead>
<tr>
<th>Waste Collections Lost Day Statistics</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Care Claims</td>
<td>16</td>
<td>11</td>
</tr>
<tr>
<td>Lost Time Claims</td>
<td>35</td>
<td>19</td>
</tr>
<tr>
<td>Lost Days</td>
<td>685</td>
<td>603</td>
</tr>
<tr>
<td>Workers Safety Insurance Board $</td>
<td>$95,800</td>
<td>$39,800</td>
</tr>
</tbody>
</table>

Personal Protective Equipment

It is critical that Waste Collection employees have appropriate safety apparel for their work environment. The City supplies each employee with approved personal protective equipment including reflective clothing, footwear, and gloves. All reflective safety clothing must meet the Canadian Standards Association guidelines (CSA96.1-08, Class 2, Level 2) and Ontario Ministry of Labour OSHA Regulation 145/00 Sec 69.1. Staff must wear mandatory personal protective equipment while on duty so that they are fully visible to the public.

National Health & Safety Week Activities

The City’s Public Works Department sponsors events for the annual North American Occupational Safety & Health (NAOSH). The goal of NAOSH week is to educate employers, employees, and the public on the importance of preventing injury and illness in the workplace, at home, and in the community. Previous NAOSH week activities have included skills competitions, massage therapy, information sessions with staff, training of specialized equipment, and wellness presentations.
**TRAINING AND EDUCATION**

Overview - Workplace safety is a major focus of the City of Hamilton. Staff must receive adequate training in their specific work tasks to protect their health and safety before commencement of the job.

**New Employee Training**

New Waste Collection employees go through a rigorous training program to ensure they are able to work effectively and safely. All employees must prove that they are physically able to complete the essential job duties through a third party assessor. All employees must receive adequate training to protect their health before commencement of the job. Employees must review all standard operating procedures at the start of their training period with an experienced Waste Collections employee. Each employee receives a resource manual with all required health, safety and wellness information.

**Safety Meetings**

Waste Collection employees are required to participate in mandatory monthly safety meetings to keep them informed on conditions or procedures in the workplace. Health and safety meetings include the review of health and safety topics, updates on corporate procedures, and review of health and safety legislation. Each health and safety meeting focuses on a specific training topic to raise awareness of potential hazards and educate staff on relevant standards. These meetings also provide a forum to address operational matters or upcoming changes. New training initiatives under development include incorporating e-learning software, video based learning, and safe material handling training.

**Training Room Improvements**

The City is dedicated to building a workforce with engaged and empowered employees. To support this objective, the Waste Collection Office training room was renovated to include an electronic information board and additional computer workstations to help with employee training requirements. The new audio-visual equipment complements the enhanced health and safety training and the City’s job coaching project.

**Training Boards**

Each week, Waste Collection employees review operating procedures, and safety notices including the SWANA Safety Monday bulletins. In order to be notified of important safety issues, the City installed training boards in the Waste Collections Office which has a comprehensive list of safety topics and wellness information. The training board includes operational procedures as well as career development information. Safety videos and web-based information are reviewed using the electronic information board.

**Educational Opportunities**

The City of Hamilton is committed to providing its employees with fulfilling careers and learning opportunities. To keep employees up to date on their work skills, the City offers training courses to ensure employees are capable of performing their duties in the most effective manner including educational opportunities, computer skills training, and customer support training. Waste Collection employees are required to participate in essential training programs including First Aid/CPR, Workplace Hazardous Materials Information Systems (WHMIS) training, and Highway Traffic Act training. Employees who complete job related training courses are recognized through the City's performance appraisal process.

To support ongoing education, the Waste Collection Section has encouraged front-line staff to participate in SWANA courses. This has been a valuable element of the “Waste Matters” program to foster a greater appreciation of life-long learning.
Return to Work Services

The City of Hamilton has a Return to Work Services Section which provides health consultation services for employees and assistance with employee rehabilitation. Return to Work Services helps to manage all occupational and non-occupational claims, with a focus on returning employees to work in an early and safe manner. Work accommodation is a legislated requirement of the Ontario Human Rights Code and the Workplace Safety and Insurance Act, but it is also a means of regaining and sustaining valuable employees.

As part of the “Waste Matters” program, the City developed a return to work job coaching project for Waste Collection employees. The new project includes the following:

- Development of a training program to assist employees that have experienced injuries to progress to full duties including an ergonomics and prevention program.
- Reviewing tasks and other actions to work within the employee’s capabilities.
- Reviewing with management and employees the employee’s progression during return to work and address any barriers.
- Coaching supervisors on standard precautions as related to injuries and how to best to work with employees to solve any problems and utilize other resources.

Work accommodation assignments developed for Waste Collection employees include the opportunity to work on administrative projects and customer service activities. Due to the success of the wellness program, there has been a reduction in the number of employee injuries.

<table>
<thead>
<tr>
<th>Return to Work Program</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Employees assisted through program</td>
<td>41</td>
<td>21</td>
</tr>
</tbody>
</table>
Positive Work Environments

The City has policies in place which are designed to build and maintain respectful and supportive work environments, prevent all forms of workplace harassment, and provide a mechanism to act on concerns in a prompt, fair, and confidential manner. The City’s policies to prevent harassment and discrimination commit everyone in the organization to building and maintaining an inclusive, safe, secure and respectful work environment. To support these policies, employees are required to attend a mandatory training session to ensure they are aware of their rights and responsibilities with maintaining a respectful and supportive work environment. The training session outlines the City’s expectations concerning appropriate behavior in the workplace.

Community Support

Municipal employees provide support for charitable organizations in the community by participating in the City’s pre-authorized payroll deduction program. Additional fundraising activities occur throughout the year to help provide needed resources for community organizations.

When the “Ice Bucket Challenge” was sweeping the social media scene, the Waste Collections Section took part with a “waste management” spin.

Employee Recognition

The City of Hamilton has an “Employee Spirit” recognition program to acknowledge outstanding achievements at work and in the community. The program recognizes individuals or teams of employees who have contributed in an exceptional way to the City’s profile or provided sensational service to enhance community well-being. Nominations are made by employees or by the public. An annual awards ceremony is held to congratulate and recognize “Employee Spirit” recipients.

Skills Building

The City’s Waste Collection employees participate in the annual Ontario Waste Management Association’s Truck Driving Championship. The competition allows competitors to show off their skills against others in the waste industry, both public and contracted. City of Hamilton staff won several awards during these events over the years.
**FLEET INITIATIVES AND TECHNOLOGY**

Overview - The City of Hamilton takes the responsibility of driver safety very seriously and has implemented new initiatives focused on improving driver training and ensuring safety compliance.

**Fleet Initiatives**

The City of Hamilton must comply with the Province of Ontario’s Commercial Vehicle Operator’s Registration (CVOR) rating system for commercial fleet. The CVOR system tracks the on-road safety performance for vehicles that have a registered weight of over 4,500 kilograms (9,920 lbs), which is applicable for the City’s larger vehicles such as waste collection vehicles and snow plows. The goal of the CVOR system is to improve road safety for all Ontario roadways by having an effective monitoring and intervention system for vehicle operators. Poor performance may result in the loss of privileges to operate commercial vehicles. The CVOR system tracks carrier information (i.e. fleet size, driving distance, commodity transported), traffic convictions, reportable collisions, and Ministry of Transportation interventions. Vehicle inspections, collisions, and convictions appear on the Carrier’s CVOR abstract. The CVOR report is a two-year rolling record that tracks violations which incur points against the CVOR for a two-year period, after which time they will drop off the record.

The City of Hamilton faced a number of incidents between 2013 to 2014 which impacted the City’s CVOR rating. Historically, the Waste Collection Section has been a significant contributor to the City’s overall unfavourable Commercial Vehicle Operators Registration (CVOR) as the result of challenges with maneuvering large vehicles to collect waste materials. In Fall 2014, the City instated a CVOR Committee to focus on key safety issues and to make recommendations on strategies for improvement. This Committee consists of management and supervisory staff from various City Divisions who have responsibility for fleet operations, driver safety and the CVOR. The CVOR Committee has introduced a new safety action plan to address the City’s CVOR rating, which has been supported by Hamilton City Council and the City’s labour union.

The action plan includes several strategies which includes the following:

- Making improvements for the City’s driver training program to ensure all employees are aware of their obligations when operating the City’s vehicles and equipment.
- Establishing Driver Trainer positions to coordinate driver activities including training, providing assistance with coaching, and monitoring performance. A dedicated Driver Trainer is currently assigned to the Waste Collection Section to assist with route training, safe operation of vehicles, and on-route safety inspection.
- Formation of a Collision Review Board (CRB) to examine the findings from all collisions involving municipal vehicles and equipment. This Board provides corporate scrutiny to evaluate the incidents and determine the appropriate course of action. If an incident is deemed preventable by the CRB, a demerit system is used to assess the appropriate action.
- Development of an annual CVOR Safety Action Plan.
- Inclusion of a CVOR/Driver Safety performance measurement in staff annual performance appraisals.
- Creation of a Driver Recognition Rewards program to assist in decreasing the CVOR through driver recognition for safe driving records and increase employee morale.

This increased focus on driver training has helped to significantly reduce the City’s CVOR rating in 2015 by 30%. Staff will continue to focus on the importance of driving defensively and the impact that traffic convictions and collections have on the City’s CVOR.

The use of new technology is helping the City to address its CVOR rating.
New Technologies

The City of Hamilton is actively seeking new technologies to improve the delivery of its services in a safe and efficient manner.

Vehicle Cameras

Vehicle cameras are an innovative technology being adopted by commercial fleets worldwide as a means to promote a safe work environment and to mitigate road related concerns. In June 2015, staff introduced vehicle camera technology as a pilot project in ten of the City’s waste collection vehicles as a strategy to improve driver behaviour through coaching as well as to mitigate risk. Vehicle camera technology offers many benefits which include:

- Driver training – video footage assists with instructing employees on proper driving techniques;
- Claims management – audio and video recordings provides an objective account of events in the event that an incident has occurred.

The City retained “Lytx, Inc.” to supply the “DriveCam” system for the City’s waste collection trucks. “Lytx, Inc.” offers a proprietary monitoring system which allows City staff to focus on incidents that pose the greatest risk to the municipality. The “DriveCam” driver safety system includes a video event recorder which captures questionable driver behaviour, uploads daily video recordings, and transfers the information for analysis and safety coaching. With this monitoring system, “Lytx, Inc.” reviews all video footage from the vehicle cameras and sends an edited version for the City’s review. This edited video footage focuses on safety concerns. This service is beneficial in that staff can use their time wisely rather than having to review volumes of video footage.

Hamilton’s vehicle camera pilot has been extremely successful in changing driver behaviour, supporting staff training initiatives, and supplying details on risk management concerns. After initial coaching sessions with staff, there have been significant improvements with compliance with Highway Traffic Act requirements and cost reductions for risk management claims.

There were significant improvements in the City’s CVOR rating, which can be attributed to improved performance expectations and the use of the vehicle camera system. Due to this project’s success, Hamilton’s City Council approved to expand the vehicle camera system to the remainder of the City’s waste collection fleet in 2016 and to consider this technology for other types of municipal vehicles.

Future Projects

Work is in progress on the use of new technologies to assist with waste collection service delivery. Starting in 2016, waste collection vehicles will be part of the City’s new Automated Vehicle Location (AVL) system. The City is also undertaking a route optimization review of its current waste collection routes. The use of the AVL system and route optimization will offer many benefits including enhanced planning capabilities improving balancing workloads. This will assist staff to address employee health and well-being balancing performance outcomes.

Waste Collection employees have the opportunity to be involved with decision-making process to provide input on workplace improvements. Front-line staff is included in the equipment selection process for new waste collection vehicles and operating equipment.
MEASURING RESULTS

There are a variety of tools used to measure the components of the City’s health & safety program:

- Monthly health & safety reports track the number of health related incidents and hazards reported;
- Vehicle incidents are recorded by the City’s Central Fleet Section through a centralized database;
- The City maintains records of risk management claims including the type of claim and associated costs;
- The City is required to maintain data for its CVOR abstract.

Existing reports are used to benchmark the performance of the City’s new and improved health, safety and wellness program between 2014 and 2015.

Safety Improvement

Healthy employees are a definite asset to the City because it improves the delivery of municipal services to the community. Promoting health, safety and wellness has many positive effects including decreasing healthcare costs, reducing employee absenteeism, boosting staff morale, and increasing productivity.

Outcomes

Lost time can have a tremendous impact for an organization that delivers essential public services. Hamilton’s Waste Collection Section’s lost time incidents have dropped significantly as the result of the City’s increased focus on its “Waste Matters” health, safety and wellness program. Waste collection lost time incidents and associated costs have dropped significantly in 2015 compared to 2013 and 2014. There has been a 44% reduction in the number of lost time incidents in 2015 compared to 2014, with a savings of $45,000. In addition, the City achieved a 32% reduction in risk management claims costs between 2015 compared to 2014. This is attributed to several factors including:

- Using emerging technologies and process to help mitigate physical demands on staff;
- Partnering with Return to Work Services to develop the work accommodation program;
- Amended work practices to ensure staff work at a suitable pace to complete their routes in a safe manner;
- Increased field supervision including an improved driver training program with driver observation and consultation.

Summary

The new Excellence Award for Biggest Safety Improvement showcases SWANA’s commitment to encourage safety innovations in the workplace. The City of Hamilton’s “Waste Matters” health, safety and wellness program is worthy of SWANA’s safety award since City’s program can be used as a model for safety excellence in other organizations.

The City of Hamilton’s goal is to ensure the health, safety and wellness of employees as a top priority. The City has taken decisive and focused actions to improve safety, promote employee wellness, and effectively deal with fleet matters. The successful outcome from the “Waste Matters” program demonstrates how positive actions influence the City’s operations. These corrective actions are part of the City’s commitment to continuous improvement.

With the support and guidance of City Council and Senior Management Team, we will continuously improve our healthy workplace culture by setting ambitious shared targets and goals for improved health, safety, wellness, and return to work programs. We will implement innovative leading practices in health, safety, wellness, and return to work by learning from our own and other organizations' experiences.

Fred Eisenberger, Mayor of Hamilton