STAFF REPORT
INFORMATION ONLY

Annual Safety, Health & Environment (SH&E) Management System Review – 2017 to 2019 TTC Corporate SH&E Goals and Objectives

Date:	May 18, 2017
To:	TTC Board
From:	Chief Executive Officer

Summary

A review of TTC's Safety, Health and Environment (SH&E) Management System was conducted by the Safety, Security, and Environment Executive (SX) Committee in January 2017, in order to evaluate TTC's SH&E performance between Q4, 2015 and Q3, 2016. It was completed through the analysis of: performance indicators, audit/assessment results, regulatory oversight, findings from other transit agencies, status of SH&E initiatives and group/departmental management reviews.

This report summarizes the results of the aforementioned review and includes the 2017 to 2019 TTC corporate SH&E goals and objectives that were established to address the SH&E Management System opportunities for improvement identified through the review.

Financial Impact

This report has no financial impact beyond what has been approved in the current year's operating budget.

Decision History

This report has been received by the SX Committee. It provides Board members with information on the functioning of TTC's SH&E Management System to help them fulfil their duties and responsibilities.

Issue Background

The TTC SH&E Management System is built on the TTC's commitment to protect the environment and the safety and health of its workers, customers, and the general public.

The SX Committee meets annually to review the SH&E Management System at TTC, to ensure its continuing suitability, adequacy and effectiveness. This review assesses

opportunities for continual improvement, evaluates how well the SH&E Management System is functioning in meeting TTC's strategic objectives as outlined in TTC's 5 Year Corporate Plan.

Board members have a duty under the Occupational Health and Safety Act, to take all reasonable care to ensure that the TTC complies with the Act and the regulations.

Accessibility/Equity Matters

There are **no** accessibility or equity issues.

Comments

The information listed below summarizes the results from the analysis of the following inputs: performance indicators, audit/assessment results, regulatory oversight, status of SH&E initiatives and group/departmental management reviews.

SH&E Performance
Through statistical analysis and moving annual comparison of TTC's SH&E performance data the following trends were observed:

SH&E Performance Indicator	Identified Trends
1. **Lost-Time Injury Incident Rate (LTIR) and No-Lost Time Injury Incident Rate (NLTIR)**	• The moving annual LTIR and NLTIR to the end of Q3, 2016 were higher than the corresponding rates to the end of Q3, 2015. • However, over the long term period, from Q4, 2011 to Q3, 2016, a statistically significant downward trend was observed in both rates.
2. **Customer and Public Safety Performance**	• The moving annual bus, streetcar, and Wheel-Trans collision rates to the end of Q3, 2016 were lower than their corresponding rates to the end of Q3, 2015. • The moving annual customer injury rates for Wheel-Trans and subway (station related) to the end of Q3, 2016 were lower than their corresponding rates to the end of Q3, 2015. • The moving annual bus, streetcar, and subway (vehicle related) customer injury rates and the moving annual total public injury rate to the end of Q3, 2016 were higher than their corresponding rates to the end of Q3, 2015. • However, over the long term period, from Q4, 2011 to Q3, 2016, no statistically significant

SH&E Performance Indicator	Identified Trends
	trends were observed in any of the customer injury rates. • Over this five year period, a statistically significant downward trend was observed in the total public injury rate.
3. Operational Safety Performance	• The moving annual average platform overshoots per week and average doors open in error per week to the end of Q3, 2016 were lower than their corresponding rates to the end of Q3, 2015. • A statistically significant downward trend was observed in the average platform overshoots per week over the two year period. • The moving annual average signals passed at danger per week and the average number of confirmed Plan B fire/smoke incidents to the end of Q3, 2016 were higher than their corresponding rates to the end of Q3, 2015. • No statistically significant trend was observed in both these measures over the two year period.
4. Security	• The moving annual customer and employee crime rates to the end of Q3, 2016 were higher than their corresponding rates to the end of Q3, 2015. • A statistically significant upward trend was observed in both these measures over the two year period.

Audit / Assessment Results
A number of internal and external audits were conducted to examine different aspects of the SH&E Management System, including health and safety audits, safety assurance checks, environmental audits, and investigations. Based on the findings, corrective actions were established and are tracked on an on–going basis.

Status of SH&E Initiatives
There were 11 new or revised SH&E Management System corporate programs or processes approved by the SX between October 2015 to September 2016. To date, these processes are close to being fully implemented across the TTC.

Regulatory Oversight
- 8 Ministry of Environment and Climate Change Orders
- 3 City of Toronto Notice of Violations
- 27 Ministry of Labour orders
- 24 work refusals, 14 resolved within Stage 1

All orders and violations have been resolved.

Group/ Departmental Management System Reviews
Group/department level SH&E management system reviews identified a number of priorities, initiatives and opportunities for improvement including the need for an effective software system to track SH&E activities, the opportunity to improve safety communication and the opportunity to develop hazard-specific programs and campaigns.

TTC Corporate SH&E Goals and Objectives
As a result of this review, the 2017 to 2019 TTC corporate SH&E goals and objectives were established to address the SH&E Management System opportunities for improvement that were identified through the corporate level and group/department level reviews. These goals and objectives are attached to this report as Appendix 1.

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Attachment
Attachment: Appendix 1 – 2017 to 2019 TTC corporate SH&E goals and objectives

Appendix 1 – 2017 to 2019 TTC Corporate SH&E Goals and Objectives

The key output of the SH&E Management System Review is to establish corporate level goals and objectives for 2017 to 2019. The section below summarizes the goals and objectives for 2017 to 2019.

Goal 1: Adopt an Enterprise Risk Management Model to improve strategic decision making

Item	Objective	Lead Department	Involved Groups/ Departments	Start	Finish
1	Deploy ERM system to final 33% of TTC departments	Safety & Environment (S&E)	All	Q1 2017	Q4 2017
2	Establish Corporate Risk Review Process	S&E	All	Q1 2017	Q4 2017
3	Re-align and evaluate the Corporate Risk Register within context of current business needs	S&E	All	Q1 2018	Q4 2019

Goal 2: Build a functioning and effective SH&E Management System

Item	Objective	Lead Department	Involved Groups/ Departments	Start	Finish
1	Pilot and implement Hazard Reporting Procedure	S&E	All	Q1 2015	Q1 2018 (on hold, pending decision on SH&E software)
2	Develop strategy to enhance understanding of the SH&E Management System and the interconnectivity between corporate and department level SH&E programs	S&E		Q2 2016	Q3 2017
3	Evaluate and improve contractor safety element of the SH&E Management System	Engineering, Construction and Expansion (EC&E)	Operations; Materials & Procurement (M&P) S&E	Q1 2016	Q4 2017

Item	Objective	Lead Department	Involved Groups/ Departments	Start	Finish
4	Improve the incident reporting and investigation element of the SH&E Management System (includes near miss reporting)	S&E	All	Q2 2016	Q3 2017
5	Review and improve the metrics in the KPI report such that more leading indicators are monitored and consider alternative/more robust methods of analysis	S&E	All	Q2 2016	Q4 2017
6	Acquire and implement a commercial off the shelf (COTS) enterprise SH&E software solution to manage SH&E business processes through 2 phases: • Phase 1: Acquire a COTS enterprise SH&E software solution and implement SH&E incident reporting and investigation and corrective action tracking • Phase 2: Implement additional business processes to support the other SH&E goals.	S&E	Operations; Service Delivery; EC&E; M&P Information Technology Services (ITS)	Q1 2016 Q1 2018	Q1 2018 Q4 2019

Item	Objective	Lead Department	Involved Groups/ Departments	Start	Finish
7	**Development of SH&E Policies and Processes Procedure** a. Review and update Development SH&E Policies and Processes Procedure b. Obtain SX approval	S&E	All	Q4 2016 Q2 2017	Q2 2017 Q2 2017
8	**Frontline Hazard Management Processes** a. Develop Frontline Hazard Management Processes b. Obtain SX approval c. Implement Processes in key departments	S&E	All	Q2 2016 Q3 2017 Q3 2017	Q3 2017 Q3 2017 Q2 2018
9	**Safety Alert Procedure** a. Review and update Safety Alert Procedure b. Obtain SX approval c. Implement Procedure in key departments	S&E	All	Q2 2017 Q3 2017 Q3 2017	Q3 2017 Q3 2017 Q1 2018
10	Evaluate training & competency element of the SH&E Management System	S&E	Human Resources (HR); Training & Development (T&D) Operations; Service Delivery; EC&E	Q2 2017	Q4 2017
11	Evaluate and improve procurement element of the SH&E Management System	S&E	All	Q2 2017	Q4 2017

Item	Objective	Lead Department	Involved Groups/ Departments	Start	Finish
12	**Personal Protective Equipment (PPE) Standard** a. Review and update PPE Standard b. Obtain SX approval c. Implement Standard in key departments	S&E	All	Q1 2018 Q3 2018 Q3 2018	Q3 2018 Q3 2018 Q1 2019

Goal 3: Systematically manage occupational safety hazards with serious injury potential

Item	Objective	Lead Department	Involved Groups/ Departments	Start	Finish
1	**Asbestos Management Program** a. Implement Program in key departments	S&E	EC&E; Operations; HR	Q3 2016	Q4 2017
2	**Mechanical Handling Standard** a. Develop Mechanical Handling Standard b. Obtain SX approval c. Implement Standard in key departments	S&E	EC&E; Operations; M&P	Q3 2015 Q3 2017 Q3 2017	Q3 2017 Q3 2017 Q1 2019
3	**LOTO Program** a. Implement Program in key departments	S&E	EC&E; Operations; M&P	Q3 2016	Q4 2018
4	**Working at Heights Standard** a. Implement Standard in key departments	S&E	EC&E; Operations; M&P	Q3 2016	Q2 2019

Item	Objective	Lead Department	Involved Groups/ Departments	Start	Finish
5	**Active Fall Protection Program** a. Develop Active Fall Protection Program b. Obtain SX approval c. Implement Program in key departments	S&E	EC&E; Operations; M&P	Q1 2016 Q2 2017 Q2 2017	Q2 2017 Q2 2017 Q2 2019
6	**Designated Substance Program** a. Develop Designated Substance Program b. Obtain SX approval c. Implement Program in key departments	S&E	EC&E; Operations; HR; T&D	Q1 2019 Q3 2019 Q3 2019	Q3 2019 Q3 2019 Q3 2020
7	**Machine Guarding Standard** a. Develop Machine Guarding Standard b. Obtain SX approval c. Implement Standard in key departments	S&E	EC&E; Operations	Q1 2018 Q4 2018 Q4 2018	Q4 2018 Q4 2018 Q4 2019
8	**Mobile Elevated Work Platform Program** a. Develop Mobile Elevated Work Platform Program b. Obtain SX approval c. Implement Program in key departments	S&E	EC&E; Operations; M&P	Q2 2017 Q3 2017 Q3 2017	Q3 2017 Q3 2017 Q2 2019

Item	Objective	Lead Department	Involved Groups/ Departments	Start	Finish
9	**Ladder Safety Program** a. Review and update Ladder Safety Program b. Obtain SX approval c. Implement Program in key departments	S&E	EC&E; Operations; M&P	Q3 2017 Q4 2017 Q4 2017	Q4 2017 Q4 2017 Q2 2019
10	Investigate industry standards and methods on fatigue management and evaluate applicability at the TTC	S&E	Operations; Service Delivery	Q2 2017	Q4 2017
11	**Electrical Safety Program** a. Develop Electrical Safety Program b. Obtain SX approval c. Implement Program in key departments	Subway Infrastructure (SI)	S&E; EC&E; Operations	Q2 2017 Q2 2018 Q2 2018	Q2 2018 Q2 2018 Q1 2019
12	**iNet Portable Gas Monitoring System** a. Develop iNet Portable Gas Monitoring Procedure b. Obtain SX approval c. Implement Procedure in key departments	S&E	EC&E; Operations	Q4 2016 Q1 2017 Q1 2017	Q1 2017 Q1 2017 Q4 2017
13	**Fire Safety Program** a. Revise the Fire Safety Program b. Obtain SX approval	S&E		Q1 2017 Q3 2017	Q3 2017 Q3 2017

Goal 4: Update existing SH&E processes to ensure compliance with legislation and best practice

Item	Objective	Lead Department	Involved Groups/ Departments	Start	Finish
1	Review and update Fire Safety Plans for all surface properties	S&E	Operations; Service Delivery	Q1 2015	Q2 2017
2	**Hearing Loss Prevention Program** a. Review and update Hearing Loss Prevention Program b. Obtain SX Approval c. Implement the Program in key departments	S&E	EC&E; Operations; Service Delivery; HR	Q4 2016 Q2 2017 Q2 2017	Q2 2017 Q2 2017 Q1 2018
3	Implement changes to the Hazardous Materials Management Program (WHMIS/GHS)	S&E	Operations; EC&E; Service Delivery; T&D; ITS; M&P	Q1 2016	Q2 2018
4	Develop fire load reduction strategy	S&E		Q1 2016	Q4 2017
5	**Managing Heat Stress Procedure** a. Develop Managing Heat Stress Procedure b. Obtain SX approval c. Implement Procedure in key departments	S&E	Operations; Service Delivery	Q1 2017 Q2 2017 Q2 2017	Q2 2017 Q2 2017 Q4 2017
6	**Managing Cold Stress Procedure** a. Develop Managing Cold Stress Procedure b. Obtain SX approval c. Implement Procedure in key departments	S&E	Operations; Service Delivery	Q2 2017 Q3 2017 Q3 2017	Q3 2017 Q3 2017 Q1 2018

Item	Objective	Lead Department	Involved Groups/ Departments	Start	Finish
7	**Hot Work Procedure** a. Develop Hot Work Procedure b. Obtain SX approval c. Implement Procedure in key departments	S&E	Operations; Service Delivery	Q2 2017 Q4 2017 Q4 2017	Q4 2017 Q4 2017 Q2 2018

Goal 5: Manage business to ensure compliance with all applicable environmental laws and regulations

Item	Objective	Lead Department	Involved Groups/ Departments	Start	Finish
1	**Discharged Water Program** a. Implement Program in key departments	S&E	EC&E; Operations; T&D	Q4 2016	Q4 2017
2	**Waste Management Program** a. Develop Waste Management Program b. Obtain SX approval c. Implement Program in key departments	S&E	EC&E; Operations; M&P; T&D	Q4 2015 Q2 2017 Q2 2017	Q2 2017 Q2 2017 Q4 2018
3	**Subsurface Contaminant Management Program** a. Develop Subsurface Contaminant Management Program b. Obtain SX approval c. Implement Program in key departments	S&E	EC&E; Operations	Q2 2017 Q4 2017 Q4 2017	Q4 2017 Q4 2017 Q1 2018

Item	Objective	Lead Department	Involved Groups/ Departments	Start	Finish
4	**Fuel Management Program** a. Develop Fuel Management Program b. Obtain SX approval c. Implement Program in key departments	S&E	Operations	Q1 2018 Q3 2018 Q3 2018	Q3 2018 Q3 2018 Q3 2019
5	**NPRI and ChemTRAC Reporting Procedure** a. Develop NPRI and ChemTRAC Reporting Procedure b. Obtain SX approval c. Implement Procedure in key departments	S&E	Operations	Q1 2018 Q3 2018 Q3 2018	Q3 2018 Q3 2018 Q4 2018
6	**Tank Management Program** a. Develop new Tank Management Program b. Obtain SX approval c. Implement new Tank Management Program	S&E	EC&E; Operations	Q1 2019 Q3 2019 Q3 2019	Q3 2019 Q3 2019 Q4 2019

Goal 6: Improve planning and preparedness for emergencies

Item	Objective	Lead Department	Involved Groups/ Departments	Start	Finish
1	Conduct subway training for Toronto Fire Service	S&E		Q1 2015	Q4 2017
2	Conduct TYSSE training for Vaughan Fire Service	S&E		Q4 2015	Q4 2017

Item	Objective	Lead Department	Involved Groups/Departments	Start	Finish
3	**Nuclear Evacuation Plan** a. Update Nuclear Evacuation Plan b. Obtain SX approval c. Implement Plan in key departments	S&E	Bus Transportation	Q2 2016 Q3 2017 Q3 2017	Q2 2017 Q3 2017 Q2 2018
4	Conduct Train Crash Simulation on TYSSE	S&E		Q4 2016	Q4 2017
5	**Security Management Program** a. Develop Security Management Program b. Obtain SX approval c. Implement Program in key departments	S&E	Revenue Operations	Q1 2017 Q3 2017 Q3 2017	Q3 2017 Q3 2017 Q4 2017
6	**Industrial Site Security Mass Notification Program** a. Develop Industrial Site Security Mass Notification Program b. Obtain SX approval c. Implement program in key departments	S&E		Q1 2017 Q4 2017 Q1 2018	Q4 2017 Q4 2017 Q4 2019

Goal 7: Improve JHSC effectiveness to support a robust Internal Responsibility System (IRS)

Item	Objective	Lead Department	Involved Groups/Departments	Start	Finish
1	Obtain concurrence from TTC and unions regarding updates to the unified JHSC Terms of Reference	S&E	All	Q1 2016	Q2 2017

Goal 8: Ensure SH&E Management System is functioning effectively

Item	Objective	Lead Department	Involved Groups/ Departments	Start	Finish
1	Conduct SH&E verification/audit of SH&E communication including safety notice boards, work refusals, Safety Consultant Guideline	S&E	All	Q1 2017	Q4 2018
2	Conduct SH&E audit on the Biohazard Program	S&E	Operations; Service Delivery	Q3 2017	Q4 2017
3	Participate in APTA Oversight Audit	S&E	All	Q1 2018	Q2 2018
4	Conduct SH&E audit on Workplace Hazardous Materials Control Program	S&E	Operations; EC&E; Service Delivery; T&D; ITS; M&P	Q1 2018	Q2 2018
5	Conduct SH&E audit on the Respiratory Protection Program	S&E	EC&E; Operations	Q2 2019	Q3 2019
6	Conduct follow up audit on IR&I Corporate Program	S&E	All	Q3 2018	Q4 2018
7	Conduct SH&E audit on the Asbestos Management Program	S&E	EC&E; HR; Operations	Q1 2019	Q2 2019
8	Conduct SH&E audit on the Hazardous Energy Control/LOTO	S&E	EC&E; Operations	Q1 2020	Q2 2020
9	Conduct SH&E audit on the Discharged Water Program	S&E	Operations	Q3 2019	Q4 2019

Goal 9: Reduce the frequency of lost time injuries at the TTC

Item	Objective	Lead Department	Involved Groups / Departments	Start	Finish
1	**Ergonomics Program** a. Develop Ergonomics Program b. Obtain SX approval c. Implement Ergonomics Program	S&E	EC&E; Operations; Service Delivery; T&D; M&P	Q1 2017 Q4 2017 Q4 2017	Q4 2017 Q4 2017 Q4 2018