For Action

Annual Review of TTC's Safety, Health & Environment (SH&E) Management System

Date: June 1, 2023
To: Audit and Risk Management Committee
From: Chief Safety Officer

Summary

The TTC continues to manage and mitigate occupational health and safety, operational safety as well as environmental risks due to its operations, activities and services in a systematic manner through the implementation and maintenance of its Safety, Health and Environment (SH&E) Management System.

A SH&E Management System is a comprehensive and proactive approach to managing SH&E risk. The system goes beyond a simple sum of individual or isolated safety and environmental management programs and activities, such as investigation, inspection or training. It is designed to improve SH&E performance and reduce risk by integrating all its processes into a continuous improvement cycle of Plan-Do-Check-Act.

A review of the TTC's SH&E Management System is conducted by the TTC's internal Safety, Security and Environment Executive (SX) Committee on an annual basis. The purpose of the annual review is to evaluate the suitability, adequacy and effectiveness of the SH&E Management System, ensuring the ongoing management of SH&E risk.

The current review assessed the TTC's SH&E performance in 2022. The review was completed through analysis of the following inputs: performance indicators; status of key SH&E projects and initiatives; audit and investigation findings; and regulatory oversight. This report summarizes the full report of the annual review, which was approved by the SX Committee in May 10, 2023.

The report also includes the TTC's corporate-level SH&E goals and objectives for 2023 to 2027, with an additional breakdown of short-term objectives for 2023. The proposed goals and objectives have been updated and restructured to better support continuous improvement of the SH&E Management System.

Recommendations

It is recommended that the Audit and Risk Management Committee:

1. Approve the approach to continuously improving the effectiveness of the TTC's Safety, Health and Environment Management System, identifying priority safety, health and environment issues, and developing the TTC's safety, health and environment goals and objectives as described in this report.

2. Forward this report to the TTC Board for information.

Financial Summary

Approval of the recommendations in this report do not result in any financial implications beyond the funding included in the 2023 Operating Budget, as approved by the TTC Board on January 9, 2023 and City Council on February 15, 2023. All initiatives are funded with existing budgeted resources.

The Chief Financial Officer has reviewed this report and agrees with the financial impact information.

Equity/Accessibility Matters

Critical Path 4 of the TTC's Current Corporate Plan is "Make taking public transit seamless". As a proud leader in providing accessible public transit in the city of Toronto, the TTC is committed to ensuring reliable, safe and inclusive transit services for all its customers. This is supported by the TTC's SH&E Management System.

An effective and robust SH&E Management System is essential to the protection of communities, customers and employees who are disproportionately affected by safety, health and environmental systemic barriers. This may include Black, Indigenous and various racialized communities, people with disabilities, gender diverse communities (2SLGBTQ+) and other groups experiencing safety, health and environmental disparities.

Decision History

The TTC Audit and Risk Management Committee determined at its meeting on June 3, 2019 that this review would be presented annually to the Audit and Risk Management Committee and the TTC Board to provide members with information on the functioning of the TTC's SH&E Management System, which will help them fulfil their legislative duties as directors of a corporation, as set out in Item 7 at:

Issue Background

The TTC's 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, to ensure its continuing suitability, adequacy and effectiveness. This review evaluates how well the SH&E Management System is functioning in supporting the safety and security cornerstone of the TTC's Corporate Plan.

Under safety and environmental legislation, TTC Board members are considered directors of a corporation and have prescribed duties to take all reasonable care to ensure that the TTC complies with safety and environmental legislation and all regulatory orders. As such, they should be aware of the TTC's SH&E Management System and its performance.

Comments

The information listed below summarizes the results from the analysis of the following inputs during the annual review process:
- Performance indicators;
- Status of key SH&E projects and initiatives;
- Audit and investigation findings; and
- Regulatory oversight.

SH&E Performance Indicators

The analysis of performance indicators is performed over a five-year period (January 1, 2018 to December 31, 2022) and a two-year period (January 1, 2021 to December 31, 2022) to present both the long-term and short-term movement of the data and highlight any significant trends. The table below highlights the performance indicators where **adverse trends** were observed:

Performance Indicator	Identified Trends
Occupational Health and Safety	***Lost-Time Injury Rate (LTIR):*** • Over the five-year period, a statistically significant upward trend is observed in the LTIR. The upward trend is being driven by an upward trend in **Biological Exposure**, which mainly includes

Performance Indicator	Identified Trends

	occupational injuries relating to COVID-19 exposure. The LTIR excluding **Biological Exposure** shows no evidence to support any significant trends over the five-year period.
	
	No Lost-Time Injury Rate (NLTIR):
	
	• Over the two-year period, a statistically significant upward trend is observed in the NLTIR. The upward trend is driven by the upward trend in **Acute Emotional Event (AEE)**, **Assault**, **Collision** and **Struck Against** injury events.
	
	Current Actions:
	
	• The TTC has developed specific objectives to address the trends in the NLTIR, including the following projects and initiatives:
	
	    o Establishing a suicide prevention program and action plan to intervene in potential suicide incidents;
	
	    o Studying the feasibility of retrofitting existing stations with platform edge doors (PEDs);
	
	    o Providing suicide awareness training to frontline staff;
	
	    o Initiating a psychological health and safety project; and
	
	    o Establishing an assault prevention action plan.
	
	• Working groups are in place to track and monitor progress of the action plans.

Customer and Public Health and Safety	***Collisions:*** • Over the two-year period, there is enough evidence to support a statistically significant upward trend in the bus (total, preventable and not preventable) and streetcar (total and not preventable) collision rates. ***Customer Injuries:*** • Over the five-year period, there is enough evidence to support a statistically significant upward trend in the bus, subway station-related and subway vehicle-related customer injury rate. • The upward trends are due mainly to the significant drop in ridership over the pandemic period. Due to the method used to calculate customer injury incident rates, any changes in ridership have a large impact on the overall rates.

Performance Indicator	Identified Trends

	Current Actions:
	
	• The TTC has implemented projects and initiatives to address the increase in collisions and customer injuries, including:
	
	   ○ Establishing a Traffic Safety Committee that oversees the implementation of a variety of traffic safety initiatives, including communication campaigns, compliance audits, training improvements and technological and engineering solutions; and
	
	   ○ Customer safety messaging (e.g. slips, trips and falls prevention) promoted through social media campaigns.

Operational Safety	**Subway Plan B Incidents:** • Over the two-year period, there is enough evidence to support a statistically significant upward trend in Subway Plan B incidents. Plan B refers to the actions implemented to handle fire/smoke/burning odour at track level/platforms. **Current Actions:** • The TTC schedules regular cleaning, including a dedicated spring cleaning program, to remove debris at track level that can contribute towards Subway Plan B incidents.

Security	**Offences against Customers:**
	
	• Over the five-year and two-year periods, there is enough evidence to support a statistically significant upward trend in the rate of total Offences against Customers.
	
	Offences against Employees:
	
	• Over the five-year period, there is enough evidence to support a statistically significant upward trend in the rate of total Offences against Employees.
	
	Current Actions:
	
	• The TTC has implemented projects and initiatives to address the trends in Offences, including:
	
	   ○ Creating an assault prevention action plan;
	
	   ○ Establishing a Joint Labour Management Committee in partnership with ATU Local 113; and
	
	   ○ Providing frontline and community support through increasing presence in the transit system and on-going

Performance Indicator	Identified Trends
	partnerships with external agencies to provide supports to individuals experiencing homelessness and those with complex needs.

SH&E Projects and Initiatives

In Q1 and Q2 2022, the TTC continued to engage in emergency response activities and recovery operations during the COVID-19 pandemic. Since the recognition of COVID-19 as a respiratory illness and the gradual easing of various restrictions in Ontario, the TTC has shifted from emergency response and recovery to close monitoring of the development of COVID-19, freeing up resources necessary to continue implementation of SH&E projects and initiatives that were previously impacted by the pandemic.

However, redeployment of project management resources to support community safety and security efforts continues to impact activities supporting the improvement of the SH&E Management System. The TTC has developed a new goal: **Goal 8 – Continue to improve and strengthen community safety and security on the transit system** to capture the objectives associated with this work. The objectives will expand the scope of existing action plans and integrate the community safety and security response into a corporate-level plan. The TTC will continue to monitor and adapt to continued implementation of the corporate-level SH&E goals and objectives and evaluate the need for additional resources.

The table below summarizes key developments toward the TTC's corporate-level SH&E goals and objectives during the review period, with a focus on projects that have a significant impact across the organization:

Project and/or Initiative	Key Developments
Occupational Health and Safety	
SH&E Management System Software (Safety Connect)	• The Safety Connect software went live in Q3 2020. Onboarding of departments continues in stages for incident reporting, investigation and corrective action tracking. • In 2022, seven departments were onboarded and have started managing their incident reporting and investigation process in Safety Connect. • Implementation of the occupational hygiene, environmental, occupational health, and Hazard Identification and Risk

	Assessment (HIRA)/Job Safety Analysis (JSA) modules will continue in 2023.
Management of Occupational Health and Safety Hazards and Risks	• HIRA/JSA procedures are currently being implemented. The aim is for each department to have a departmental Risk Register supplemented with JSAs based on the department's job inventory.
	• Implementation is complete with Streetcar Infrastructure – Overhead and continues with Streetcar Infrastructure – Way and LRT Operations.
	• E-Learning modules have been deployed and the configuration of HIRA/JSA functionality is underway within Safety Connect.
Psychological Health and Safety (PH&S)	• The goal is to create a PH&S Management System in accordance with CSA Z1003. The project team completed an organizational review in 2022 evaluating 13 psychosocial factors at the TTC to identify and assess risks.
	• A report with recommendations to improve engagement around PH&S support and foster a psychologically healthy and safety culture was finalized in early 2023.
	• A strategic plan to implement priority recommendations will be developed in 2023.
Fatigue Management	• An assessment of fatigue risks was completed in 2022 through an organizational policy review, stakeholder interviews and an anonymous employee fatigue survey.
	• A final risk assessment report was finalized in early 2023, which provides insights on key issues of fatigue and directs the development of a Fatigue Risk Management Program.
	• A strategic plan for implementing priority fatigue countermeasures will be developed in 2023.
Operational Rules Oversight	• The Operational Rules Executive (ORX) Committee continues to approve new Rules and Rules Variances.
	• In 2022, the Subway Rule Book Oversight Group was established to ensure the rule books remain current and effective. The ORX Committee approved enhancements to the rule book structure and governance.
	• Updates to the Subway Rule Book will be published in 2023, and the Subway Yard Rule Book will be incorporated into the updated 2023 library of Subway Rule Books.

Federal Transit Administration's (FTA) Safety Inspection of the Massachusetts Bay Transportation Authority (MBTA)	• The TTC is actively following the progress of the FTA Safety Management Inspection on MBTA resulting from several catastrophic safety events. • The findings of the FTA inspection have prompted internal reviews of the TTC's current state in training conformance, critical vacancies, procedures for recovery of disabled trains, subway track level tool time, work zone compliance, and track defects. • Action plans related to the TTC's Learning Management System, staffing, and operator and supervisory recertification were developed and will be ongoing in 2023.
Customer and Public Health and Safety	
Suicide Prevention Program	• The primary tactic is intervention in potential suicide incidents by increasing the number of employees with the knowledge and skills to recognize individuals in crisis and connect them to help and support. • In 2022, the Operations Training Centre provided in-class awareness training from LivingWorks to 256 TTC employees, and 85% of the 500 e-Learning licenses have been utilized. • The PEDs study and business case are completed, and a further update to the report is expected in 2023. • PEDs are included within the scope of the Bloor-Yonge Station Capacity Improvement Project.
Traffic Safety	• The *Corporate Program – Traffic Safety* solidifies the framework for traffic safety by establishing goals, implementing strategies and monitoring performance. • The Traffic Safety Committee (TSC) oversees the program and consists of Department Heads and other members directly involved in surface transportation operations and maintenance. • Traffic safety accomplishments in 2022 include: preventative actions related to switch incidents, turn technique, clearance collisions and railway crossing safety, communication campaigns on safe vehicle operation, ongoing audits to verify compliance and support for technological solutions.

Light Rail Transit (LRT) Projects	• The LRT-specific *Safety Management Plan* and *Corporate Safety Certification for P3 Rail Transit Projects* were developed and approved in 2022. • The TTC continues to provide fire and life-safety support for Crosslinx Transit Solution.
Occupational Hygiene and Environment	
Subway Air Quality	• Health Canada, in collaboration with the University of Toronto and the National Research Council of Canada, conducted the *Subway Air Quality Initiative* from 2018 to 2020. As part of the action report, the TTC has committed to monitoring levels of fine particulate matter ($PM_{2.5}$). • In 2022, the impact on subway air quality from filter updates on T1 and TR trains was assessed. Reduction in exposure to fine particulate matter ($PM_{2.5}$) was observed on Line 2, but was less consistent on Line 1 and 4. In 2023, the TTC will continue to look at the effectiveness measures to reduce particulate generation on subway lines.
Radon Study	• A company-wide radon study was initiated in 2020. • Phase 1 (substations), Phase 2 (yards), and Phase 3 (surface properties) are completed. Radon concentrations were found to be less than Health Canada's action level of 200 Bq/m^3 in all areas measured. • Phase 4 has commenced in all subway locations and will continue in 2023.
Ergonomics Program	• The TTC has established a corporate program and resources for general instruction and awareness and self-assessments are available. • In 2022, Back Care Training was delivered in a train-the-trainer model to three high-risk groups: Wheel-Trans, Track and Structure and Elevating Devices.
Hazardous Waste Management Program	• The TTC-wide consolidated hazardous waste contract was completed and awarded in Q4 2020. As of Q4 2022, the contract is completely in effect with 60 cost centres on board. • The consolidation enabled monthly budgetary and regulatory reporting, generated operational cost savings and significantly reduced the number of contracts and invoices to be managed.

Spills Program	• Site-specific Spill Contingency Plans have been completed for all operating facilities with the exception of Sheppard Distribution Centre, which will be completed in 2023.
Fire and Life Safety	
Fire and Life Safety	• Fire code audits, fire drills, fire safety plans and Toronto Fire Services training are completed. • Familiarization and implementation of the fire and life safety software, Building Report Canada 2.0, will continue in 2023. • The Greenwood Firemain Project is ongoing and functional tests and reviews with Toronto Fire Services will continue in 2023. • In 2021, a Geographic Information System (GIS) project was completed to align subway station entry door information with the City of Toronto for the purpose of improving emergency response. The TTC will begin another GIS project for surface properties in 2023.
Emergency Management and Business Continuity	
Emergency Management (EM)	• The EM team expanded with two new Senior EM Planners and continued to liaise with the City of Toronto, York Region, Toronto Police Service and Metrolinx on emergency response activities. • The *Corporate Emergency Plan* is being updated to align with the adoption of Incident Management System (IMS) 2.0 at the provincial and municipal level. • The *Corporate Severe Weather Plan* is in the process of review and development, along with procedures for Active Attacker response and Chemical, Biological, Radiological, Nuclear and Explosive (CBRNE) responses. • A Severe Weather Tabletop exercise was conducted in 2022.
Business Continuity and Resilience (BC&R)	• The BC&R section was established in the Safety and Environment Department with the mandate of establishing a business continuity program. • The *Corporate Standard for Business Continuity* was developed and approved in 2022. The *Corporate Program for Business Continuity* was approved in 2023,

	incorporating results of a business continuity gap assessment.
	• In 2023, BC&R will conduct exercises based on business continuity plans, risk assessments and business impact analysis.
Engineering, Construction & Expansion (EC&E)	
EC&E	• The EC&E Group conducted safety initiatives and activities to enhance safety at construction sites and improve safety training.
	• The group created a consistent and uniform method of evaluating construction projects in accordance with legislative guidelines and addressed Notice of Project and Designation of Project requirements for all departments involved in construction projects.
	• In 2022, the EC&E Group achieved the construction sector leading and prestigious health and safety program certification known as Certificate of Recognition (COR®), becoming the first government entity in Ontario to become COR-certified.

Audits and Investigations

A number of audits and other safety assurance activities are conducted to examine different aspects of the SH&E Management System. Based on the findings, corrective actions are established and tracked on an ongoing basis.

Safety Assurance Checks focusing on COVID-19 control measures continued to take place until June 2022 to monitor compliance with physical distancing, vehicle disinfection and bus barrier and mask use. The findings were summarized and provided to the TTC Executive as part of the weekly COVID-19 dashboard.

As part of track level safety efforts, the Safety and Environment Department continued conducting track level safety observations during night shift operations to monitor work zone compliance.

In addition, the status of environmental audits is monitored to ensure corrective actions are tracked to completion.

Regulatory Oversight

The table below summarizes the number of regulatory interactions and orders issued from January 1 to December 31, 2022 and their status. This includes interactions with the Ministry of Labour, Immigration, Training and Skills Development (MLITSD), Ministry

of Environment, Conservation and Parks (MECP), Technical Standards and Safety Authority (TSSA), City of Toronto and the Toronto Fire Services. All orders have been complied with and are considered to be closed.

Type	Interactions/ Visits	Requirement Orders Issued[1]	Non-compliance Orders Issued[2]	Status
MLITSD	89	13	11	Compliance achieved
MECP	0	0	0	No orders issued
TSSA	0	0	0	No orders issued
City of Toronto	4	0	1	Compliance achieved
Toronto Fire Services	66	0	4	Compliance achieved

[1] Orders issued to provide documentation/information
[2] Orders issued to remedy contraventions of the Occupational Health and Safety Act or Regulations, Environmental Protection Act, City of Toronto Sewers By-Law and Ontario Fire Code.

TTC SH&E Goals and Objectives

The TTC's corporate-level SH&E goals and objectives for 2023 to 2027, with an additional breakdown of short-term objectives for 2023, are attached to this report as Attachment 1.

Contact

Betty Hasserjian, Chief Safety Officer
416-393-4574
betty.hasserjian@ttc.ca

Signature

Betty Hasserjian
Chief Safety Officer

Attachments

Attachment 1 – 2023 to 2027 SH&E Goals and Objectives

ATTACHMENT 1 – 2023 TO 2027 TTC SH&E GOALS AND OBJECTIVES

The TTC continues to focus on existing corporate-level goals and objectives and dedicating resources to advancing these items to completion in the assigned timeframe. The proposed goals and objectives have been updated and restructured to better support continuous improvement of the SH&E Management System. The objectives are outlined over a five-year period from 2023 to 2027, with an additional breakdown of short-term objectives for 2023.

Key changes to the goals and objectives include:

- Expanding the objectives on emergency response to create a new **Goal 6 – Continue to improve and strengthen planning, response and recovery capabilities to mitigate the impacts of emergencies and disruptions**. This revised goal better encompasses the newly established business continuity objectives.

- Creating new goals and objectives, including **Goal 7 – Improve Contractor Safety Management** and **Goal 8 – Continue to improve and strengthen community safety and security on transit system** to reflect these areas of work and establish clear objectives.

- Combining previous objectives into **Goal 2 – Continue to improve and strengthen controls to manage occupational injury and illness risk** and **Goal 5 – Continue to improve and strengthen Customer Safety**.

Under each goal, there are multiple strategies that describe the approach or method to achieve the goal. The overall objective is either long-term or mid-term, which are the targets over the next five years. There are also annual objectives, which are the stepping stones that need to be completed in 2023 to lead to the overall objective. The categories are outlined in the table below. The impacted departments are also included, which means these departments may be impacted by development, consultation and/or implementation activities.

Category	Target Date	Colour
Short-Term	One year	Green
Mid-Term	One-to-two years	Yellow
Long-Term	Two-to-five years	Red

Goal #1: Continue to strengthen and improve the effectiveness of the SH&E Management System

	Objective	Target Date	Impacted Groups /Dept	Lead Dept
Strategy 1: Focus on developing foundational risk management processes				
A	Implement Real-Time Hazard Analysis tool	Q3 2023	All	Safety & Environment (S&E)
B	Ensure *Corporate Program – Incident Reporting & Investigation (IR&I)* is functioning as intended	Q4 2024	All	S&E
	i — Implement updates to IR&I program requirements and supporting improvements to Safety Connect application functionality	Q4 2023	-	S&E
	ii — Update IR&I training to incorporate Safety connect to support skill development	Q4 2023	Employee Development	S&E
	iii — Initiate Hazard/Near Miss Reporting functionality in Safety Connect	Q4 2023	Onboarded Departments	S&E
C	Implement HIRA and JSA processes across the TTC	Q4 2027	All	S&E
	i — Complete configuration of HIRA/JSA processes within Safety Connect	Q4 2023	-	S&E
	ii — Develop a Department Risk Register for LRT Operations and Streetcar Infrastructure	Q4 2023	LRT Streetcar Infrastructure	S&E
	iii — Develop selection of JSA for LRT Operations and Streetcar Infrastructure	Q4 2023	LRT Streetcar Infrastructure	S&E
D	Address gaps within procurement processes to control the introduction of new risks into TTC	Q4 2025	PCM	S&E
	i — Address recommendations in Procurement assessment report	Q4 2023	PCM	S&E

E	Establish management of change process(es) for the implementation and control of planned temporary and permanent changes that impact safety and environmental performance	Q4 2027	-	S&E

Strategy 2: Utilize Safety Connect to support SH&E Management System Requirements

	Objective	Target Date	Impacted Groups /Dept	Lead Department
A	Complete Phase 2 implementation of Safety Connect for both Environment and Occupational Hygiene-related modules	Q4 2023	ITS	S&E
B	Look at capabilities within Cority (software provider) to see if data can be used to help improve corporate programs	Q4 2023	-	S&E
C	Onboard Occupational Health & Wellbeing into Safety Connect for claims management	Q4 2023	ITS S&E	OHEW
D	Onboard organization to incident, audits/inspection and compliance management features of Safety Module in Safety Connect	Q4 2025	All	S&E
	i	Complete onboarding of the TTC into Safety Connect for IR&I	Q4 2023	All	S&E
	ii	Onboard Rules Compliance Observers into Safety Connect	Q4 2023	Operations Support	S&E

Strategy 3: Focus on developing foundational safety and environmental competencies

	Objective	Target Date	Impacted Groups/Dept	Lead Department
A	Develop and implement action plan to address gaps in young worker programs	Q4 2023	All	Talent Management
	i	Evaluate and identify gaps in co-op and summer student programs	Q2 2023	S&E	Talent Management

B	Review and update Managing Safety – Supervisory Competencies to meet IR&I Program requirements	Q4 2023	Employee Development	S&E
C	Implement Environmental Awareness Training	Q4 2023	All	S&E

Strategy 4: Establish effective measurement systems that assess safety and health performance, reduce risks, identify gaps in the SHEMS and drive needed improvements

		Objective	Target Date	Impacted Groups/Dept	Lead Department
A		Identify and define a balanced set of lagging and leading metrics and set measurable targets	Q4 2025	-	S&E
	i	Assess and develop an improvement plan	Q4 2023	-	S&E
	ii	Introduce one leading metric to SH&E Scorecard	Q4 2023	-	S&E

Goal #2: Continue to improve and strengthen controls to manage occupational injury and illness risk

Strategy 1: Reduce the frequency and severity of lost time injuries

	Objective	Target Date	Impacted Groups/Dept	Lead Department
A	Evaluate 10-Point Assault Prevention Action Plan	Q4 2023	All	S&E
B	Review the musculoskeletal-related incident data from 2022 to identify high-priority areas and to deliver training to reduce the overexertion injuries	Q4 2023	-	S&E
C	Implement First Aid Program corporately-wide	Q4 2023	All	S&E
D	Implement a Psychological Health & Safety Program for the TTC	Q4 2027	All	S&E
	i Develop PH&S Strategy and Action Plan of priorities	Q4 2023	People Group Diversity & Culture Group	S&E

Strategy 2: Systematically manage occupational safety hazards with serious injury potential

	Objective	Target Date	Impacted Groups/Dept	Lead Department
A	Complete the written program for Designated Substances by incorporating medical surveillance into the program	Q4 2023	All	S&E
B	Complete Phase Four of Radon Study by collecting samplers and analyzing data from all subway locations, develop corrective actions and communicate results to JHSC	Q3 2023	Subway Transportation	S&E
C	Complete Phase Two of the Corporate Compliance Verification Check on high-risk devices, processes and apparatuses at all Transportation & Vehicles Group facilities	Q4 2023	Transportation & Vehicles Group	S&E

D		Complete implementation of Corporate Lockout Tagout (LOTO) Program	Q4 2025	Transportation & Vehicles Operations & Infrastructure OTC ECE	S&E
	i	Initiate a Master Service Agreement for industrial safety consulting services	Q4 2023	PCM	S&E
E		Complete implementation of Corporate Active Fall Protection Program in identified departments	Q4 2025	Transportation & Vehicles Operations & Infrastructure OTC ECE	S&E
	i	Initiate a Master Service Agreement for industrial safety consulting services	Q4 2023	PCM	S&E
F		Implement updated Ladder Safety Program	Q2 2024	All	S&E
	i	Complete review and update Ladder Safety Program	Q4 2023	-	S&E
G		Implement Safe Operation of Powered Lift Trucks Program	Q2 2024	Transportation & Vehicles Operations & Infrastructure OTC ECE	S&E
	i	Conduct gap analysis and develop action plan	Q4 2023	-	S&E
H		Implement Safe Operation of Vehicle Lifting Devices Program	Q4 2024	Transportation & Vehicles Operations & Infrastructure OTC ECE	S&E
	i	Draft program document and prepare for approval by SX Committee	Q4 2023	-	S&E

I		Implement Corporate Fatigue Management Program	Q4 2027	All	S&E
	i	Develop Fatigue Management Strategy and Action Plan for priorities	Q4 2023	Human Resources Transportation Departments OHEW	S&E
J		Implement Corporate Electrical Safety Program in key departments	Q4 2027	Transportation & Vehicles Operations & Infrastructure OTC ECE	S&E
	i	Conduct gap analysis to identify key priorities	Q4 2023	-	S&E
	ii	Obtain the services of external consultant services to address key priorities (Master Services Agreement)	Q4 2023	PCM	S&E
K		Ensure a functioning Rule Book governance structure for all modes	Q4 2027	All	S&E
	i	Establish rules working groups and oversight group for Subway with work plans	Q4 2023	Subway Transportation Track & Structure Rail Cars & Shop SEC	S&E
	ii	Establish rules working groups and oversight group for Streetcar and work plans	Q4 2023	Streetcar Transportation Streetcar Infrastructure Streetcar Maintenance	S&E

Goal #3: Ensure compliance with applicable safety and environmental legislation, appropriate industry practices and standards and TTC policies and requirements

Strategy 1: Conduct checks to ensure environmental compliance

	Objective	Target Date	Impacted Groups/Dept	Lead Department
A	Review and assess compliance to the Spill Contingency Plans	Q4 2023	All	S&E
B	Continue implementation of the Storage Tank Audit Corrective Action Plan	Annual Updates	All	S&E

Strategy 2: Conduct knowledge transfer activities to improve OHS compliance

	Objective	Target Date	Impacted Groups/Dept	Lead Department
A	Hold group-level JHSC workshops to improve committee effectiveness and gathering information on opportunities for improvement	Q4 2023	All	S&E
B	Develop a strategy to increase SH&E contact/connection with frontline and JHSC staff through forums, as workshops and training sessions	Q4 2023	OTC	S&E
C	Host a company-wide information and feedback session for all JHSC Co-chairs (JHSC Day Event)	Q2 2024	All	S&E

Strategy 3: Conduct activities to validate the SH&E Management System

	Objective	Target Date	Impacted Groups/Dept	Lead Department
A	Draft and implement a SH&E Management System Audit Program to verify Corporate Program/Plan implementation and efficacy	Q3 2023	-	S&E
B	Conduct one SH&E Management System audit	Q4 2023	All	S&E

c	Develop a three-year audit plan to be updated on an annual year cycle	Q1 2024	-	S&E

Goal #4: *Continue to improve and strengthen Environmental Management*

	Strategy 1: Follow legal counsel priority ranking of TTC Environmental Management Policy and Programs			
	Objective	**Target Date**	**Impacted Groups/Dept**	**Lead Department**
A	Update the Hazardous Materials Control Program to include guidance on proper chemical storage	Q3 2023	All	S&E
B	Update the Corporate Environmental Plan to include Innovation and Sustainability initiatives	Q2 2023	Innovation & Sustainability Group	S&E
C	Implement a Corporate Program for Bulk Fluid Management	Q2 2023	All	S&E
	i Develop the Corporate Program by incorporating lessons learned from the Storage Tank Audit and begin implementation	Q4 2023	All	S&E

Goal #5: Continue to improve and strengthen Customer Safety

Strategy 1: Focus on customer injury trends

	Objective	Target Date	Impacted Groups /Dept	Lead Department
A	Implement actions to address trends in Onboard Injuries/Station injuries	Q4 2023	Stations	S&E

Strategy 2: Systematically manage customer safety risk with potential for major/catastrophic consequences

		Objective	Target Date	Impacted Groups /Dept	Lead Department
A		Pilot Drive Safety Assist Systems	Q3 2023	S&E ITS Project Development & Planning Transportation & Vehicles	Vehicle Programs
B		Initiate evaluation of Driver Assist Systems	Q4 2023	S&E ITS Project Development & Planning Transportation & Vehicles	Vehicle Programs
C		Identify and implement opportunities or improvements in ATC	Q4 2023	S&E Operations & Infrastructure Transportation & Vehicles	ATC
	i	Implement additional ATC enhancement related to track level work area warning devices	Q4 2023	S&E Operations & Infrastructure Transportation & Vehicles	ATC

		Objective	Target Date	Impacted Groups /Dept	Lead Department
D		Implement and evaluate action plan related to Operator Risk Management Program	Q2 2024	S&E OTC	Operations & Vehicles Group
	i	Review action plan and prioritize action items	Q3 2023	-	Operations & Vehicles Group
E		Improve availability of naloxone in stations	Q4 2023	-	S&E

Strategy 3: Strengthen fire and life safety processes

		Objective	Target Date	Impacted Groups /Dept	Lead Department
A		Integrate Fire Equipment Management Software to improve Fire and Life Safety KPIs reporting	Q4 2023	-	S&E
B		Conduct Subway System Track Level Fire Survey to identify fire hazards	Q4 2023	Subway Transportation Stations	S&E
	i	Run pilot of station walks to identify doors, storage, vent shafts where fire hazards and combustibles could exist	Q4 2023	Plant Maintenance Track & Structure	S&E
	ii	Develop and deliver report on findings and progress through subway system	Q4 2023	Plant Maintenance Track & Structure	S&E
C		Update Fire Safety Program	Q4 2023		S&E
	i	Reboot Toronto Fire Services tunnel, streetcar and bus training programs with focus on current hazards	Q3 2023	OTC Operations & Vehicles	S&E
	ii	Update the annual fire audit program to better align with industry standards	Q4 2023	-	S&E
D		Implement a data-driven approach to identify hot spots where fire-related emergencies are occurring and causing delays	Q4 2024	-	S&E

Goal #6: Continue to improve and strengthen planning, response, and recovery capabilities to mitigate the impacts of emergencies and disruptions

Strategy 1: Develop, implement and improve Business Continuity documentation and capabilities to mitigate impacts of disruptions

		Objective	Target Date	Impacted Groups /Dept	Lead Department
A		Perform continuity risk assessments and Business Impact Analysis in partnership with TTC Groups and Departments	Q4 2027	All	S&E
	i	Conduct and complete risk assessments for two departments	Q4 2023	All	S&E
	ii	Conduct and complete the Business Impact Analysis for two departments	Q4 2023	All	S&E
B		Lead the development and testing of Business Continuity Plans in partnership with TTC Groups and Departments	Q4 2027	All	S&E
	i	Develop and test Business Continuity Plans for two departments	Q4 2023	All	S&E

Strategy 2: Update and improve Emergency Management Program to improve efficiency and effectiveness of response to crisis/emergencies

		Objective	Target Date	Impacted Groups /Dept	Lead Department
A		Create and implement an exercise program based on company-wide risks	Q3 2024	All	S&E
	i	Conduct commissioning exercise for Line 5 to prepare for revenue service	Q4 2023	LRT Operations	S&E
	ii	Prepare and conduct an exercise series on Active Attacker	Q3 2023	All	S&E
B		Prepare an exercise program outline for future exercises based on current risk assessments	Q2 2024	All	S&E

C	Create a company-wide training program with a focus on IMS for various levels and positions across the TTC	Q1 2025	All	S&E

Goal #7: Improve Contractor Safety Management to enable a consistent approach across the TTC

Strategy 1: Develop consistency across departments in contractor safety management for construction and construction-related service contracts					
Objective			**Target Date**	**Impacted Groups /Dept**	**Lead Department**
A		Perform gap assessment and provide report detailing current approaches and capabilities across the TTC	Q1 2024	-	ECE
	i	Establish criteria for assessment against a construction industry safety benchmark	Q4 2023	-	ECE
	ii	Conduct surveys and assessments of various groups/departments engaged in capital projects and construction activities to benchmark against selected tool	Q4 2023	-	ECE
	iii	Explore the capabilities of project and construction safety-oriented internal or external safety software to support the implementation of a Corporate Contractor Safety Management Program	Q4 2023	-	ECE

Strategy 2: Review current construction safety training provided to TTC staff engaged in construction activities and contractors					
Objective			**Target Date**	**Impacted Groups/Dept**	**Lead Department**
A		Perform assessment of training provided to TTC staff and contractors and benchmark finding against minimum industry training requirements	Q1 2024	OTC	ECE
	i	Review current Construction Safety training offerings for strengths and weaknesses against a construction industry safety benchmark	Q4 2023	OTC	ECE

	ii	Outline future course offerings for Construction Safety Management, including TTC staff and contractors	Q4 2023	OTC	ECE

Strategy 3: Review resource structure for a robust Contractor Safety Management Program for implementation across the TTC

	Objective	Target Date	Impacted Groups/Dept	Lead Department
A	Produce a framework detailing resource structure for an effective Contractor Safety Management based on completed gap assessments	Q4 2023	-	ECE

Strategy 4: Develop and implement Contractor Safety Management Program

		Objective	Target Date	Impacted Groups /Dept	Lead Department
A		Implement a contractor safety management program across the TTC	Q4 2027	-	ECE
	i	Develop a framework for Contractor Safety Management contract safety specifications	Q4 2023	-	ECE
	ii	Identify the various procedures to be developed for the program for adoption and implementation	Q4 2023	-	ECE

Goal #8: Continue to improve and strengthen community safety and security on the transit system

Strategy 1: Develop, implement and evaluate response initiatives to address community safety and security issues				
	Objective	**Target Date**	**Impacted Groups /Dept**	**Lead Department**
A	Incorporate customer assault prevention and applicable community safety and security items into 10-Point Action Plan	Q2 2023	Transportation & Vehicles People Group Strategy & Customer Experience	S&E
B	Develop corporate-level plan to document approach to community safety and security issues	Q3 2023	Transportation & Vehicles People Group Strategy & Customer Experience	S&E