**King County Metro Agency Safety Plan**

December 2020



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REVISION SUMMARY

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| --- | --- | --- |
| **Date** | **Revision #** | **Changes** |
| December 2020 | 1.0 | First Issue |

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**CONCURRENCES AND APPROVAL**

King County Metro Transit Department Agency Safety Plan Version 1.0 dated December 2020

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Signature Date

Managing Director of Safety and Security (Chief Safety Officer)

King County Metro

\_\_

Print Name

\_\_

Signature Date

General Manager (Accountable Executive)

King County Metro

\_\_

Print Name

(See Motion Attached)\_\_

King County Council (Board of Directors equivalent)

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**INTRODUCTION**

The King County Metro (KCM) Agency Safety Plan is a comprehensive document intended to ensure the safety of customers, employees, contractors, emergency responders, and the general public. This plan provides information on KCM’s Safety Management System (SMS). During the SMS implementation process, acceptance of this Agency Safety Plan by the Federal Transit Administration does not constitute approval or acceptance of any process or component of the SMS. KCM employees and contractors are required to comply with the policies and procedures as they are being implemented during the SMS phases contained within this plan.

The KCM Accountable Executive function is carried out by the General Manager. The KCM General Manager meets the requirements of 49 Code of Federal Regulations (CFR) 673.5 and 49 CFR 673.23(d)(1). See Section 2 (Organizational Roles and Responsibilities) for more information on the General Manager’s role and responsibilities relative to SMS.

The Chief Safety Officer function is performed by the Managing Director of Safety and Security. The KCM Managing Director of Safety and Security meets the requirements of 49 CFR 673.5 and 49 CFR 673.23(d)(2). See Section 2 (Organizational Roles and Responsibilities) for more information on the Managing Director of Safety and Security’s role and responsibilities relative to SMS.

KCM is committed to developing forward-thinking innovation in managerial and technical safety processes. To that end, this Agency Safety Plan establishes Safety Management Systems principles as its foundation. The four SMS components that apply to all facets of the Authority are:

Section I: Safety Policy - Aligns all divisions of KCM under an SMS for the purpose of prioritizing safety in management decision making

1 Safety Management Policy Statement

2 Safety Accountabilities and Responsibilities

3 Integration with Public Safety and Emergency Management

4 SMS Documentation and Records

Section II: Safety Risk Management - Processes that identify, evaluate, and resolve risks; and track risk mitigations

5 Hazard Identification and Analysis

6 Safety Risk Evaluation

Section III: Safety Assurance - Ensure all the objectives are met through effective data collection and assessment

7 Safety Performance Monitoring and Measurement

8 Management of Change

9 Continuous Improvement

Section IV: Safety Promotion - Encourage workplace and public confidence in, knowledge of, and engagement with KCM’s commitment to ensuring safety

10 Safety Communication

11 Competencies and Training

These four components are the means to achieve the highest level of safety for KCM’s customers, employees, contractors, emergency responders, and the general public. SMS is a comprehensive, collaborative approach that brings management and labor together to build on KCM’s existing safety foundation to control risk, detect and correct safety problems earlier, share and analyze safety data more effectively, and measure safety performance more carefully. SMS is about applying resources to risk and is based on ensuring that KCM has the organizational infrastructure to support decision-making at all levels regarding the assignment of resources.

**SMS IMPLEMENTATION STRATEGY**

In alignment with the Federal Transit Administration (FTA)’s SMS regulations and guidance material, KCM will implement its SMS in three phases: Safety Management Policy, Safety Risk Management, and Safety Assurance. The fourth element of SMS, Safety Promotion, is embedded throughout these phases because it encompasses safety communication and safety training, and the ongoing activities that occur throughout all phases of SMS implementation.

Each of the three phases involves concrete tasks and activities that, once completed, will signify that the objectives of that SMS implementation phase have been achieved. Below are tasks and activities to be completed in each phase of SMS implementation.

**Phase 1: Planning, Organization, Organization, and Policy Development**

Tasks to be completed within Phase 1 of SMS implementation include:

* Conduct a Gap Analysis to determine activities necessary to successfully implement SMS
* Establish an SMS Steering Committee and SMS Transition Team for the implementation of SMS
* Conduct a review of existing safety programs at KCM compared to new federal and state regulations
* Update KCM Safety Policy in accordance to new federal and state regulations
* Draft and certify the initial KCM Agency Safety Plan in accordance with federal and state regulations.
* Ensure KCM’s current voluntary, confidential, non-punitive employee safety reporting program meets federal and state regulations
* Identify SMS accountabilities of KCM management
* Develop a safety risk matrix to evaluate safety risks associated with service delivery operations
* Outline essential activities and tools for the Safety Risk Management processes and Safety Assurance processes
* Identify safety management training requirements
* Develop the infrastructure for safety and safety performance communication throughout KCM
* Identify safety assurance and oversight activities performed by external agencies

**Phase 2: Safety Risk Management**

Tasks to be completed within Phase 2 of SMS implementation include:

* Improve criteria and guidance for hazard identification/analysis tools and activities
* Improve KCM’s voluntary, confidential, non-punitive employee safety reporting program
* Refine criteria for the elevation of safety risks to executive management
* Develop Safety Risk Assessment tools that executive and field management can use
* Develop, deliver, and document training on Safety Risk Management
* Promote the employee safety reporting program to frontline employees
* Communicate the completion of Safety Risk Management tasks to relevant KCM personnel

**Phase 3: Safety Assurance**

Tasks to be completed within Phase 3 of SMS implementation include:

* Refine safety performance monitoring and measurement activities
* Refine safety performance indicators and targets
* Review and enhance the process to ensure no service delivery operations are initiated in a changed environment before the change has been evaluated for safety impacts
* Develop criteria for SMS continuous improvement
* Refine and enhance internal SMS assessment activities
* Develop, deliver, and document training on Safety Assurance
* Communicate the completion of Safety Assurance tasks to relevant KCM personnel
* Measure employee perceptions of safety and culture at KCM, communicate the results, and take actions related to safety culture improvement

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SECTION I: SAFETY POLICY

# 1 Safety Management Policy

The KCM safety policy statement is memorialized in King County Department Policies and Procedures: Division Policy: Safety Management Policy signed by Rob Gannon, Transit General Manager on November 17, 2017. The following is an excerpt from the Commitments (5.0) section of that document.

KCM is committed to:

(5.1) Support the management of safety through the provision of appropriate resources that will result in an organizational culture that fosters safe practices, encourages effective employee safety reporting and communication, and actively manages safety with the same attention as given to other management systems of the organization.

(5.2) Integrate the management of safety among the primary responsibilities of all managers and employees;

(5.3) Clearly define, for all managers and employees, the expectations for which they will be accountable in the delivery and performance management of the organization’s safety management systems;

(5.4) Establish and operate hazard identification and analysis and safety risk evaluation activities, including an employee safety reporting program as a fundamental source for safety concerns and hazard identification in order to eliminate or mitigate the safety risks of the consequences of hazards resulting from our operations or activities to a point which is consistent with the organization’s established acceptable level of safety performance;

(5.5) Ensure that no action will be taken against any employee who discloses a safety concern through the employee safety reporting program, unless disclosure indicates, beyond any reasonable doubt, the employee’s direct involvement in an illegal act, gross negligence, or a deliberate or willful disregard of regulations or procedures;

(5.6) Comply with, and whenever possible, exceed, legislative and regulatory requirements and industry standards;

(5.7) Ensure that sufficient skilled and trained human resources are available to implement safety management processes;

(5.8) Ensure that all staff are provided with adequate and appropriate safety-related information, training and equipment, are competent in safety management matters, and are allocated tasks commensurate with their skills;

(5.9) Establish and measure our safety performance against realistic and data-driven safety performance indicators and safety performance targets;

(5.10) Continually improve our safety performance through management processes that use data to ensure that appropriate safety management action is taken and is effective; and

(5.11) Ensure externally supplied systems and services to support our operations are delivered and maintained to meet the organization’s safety performance standards.

## 1.1 Safety Performance Targets

Under MAP-21, the U.S. Department of Transportation (USDOT) and FTA have established safety performance criteria and state of good repair standards in the National Public Transportation Safety Plan that all transit agencies must meet at a minimum. Accordingly, the Agency Safety Plan provides for safety performance objectives that meet or exceed those federal performance criteria and state of good repair standards. The Accountable Executive reviews the Agency Safety Plan annually for approval.

The Agency Safety Plan provides strategic and management performance objectives to affirm and execute its commitment to provide a safe, reliable, and sustainable regional transportation service, and ensures compliance with federal, state, and local regulations and appropriate industry best practices. It establishes collaborative and progressive system safety, oversight, and management processes for modes that KCM operates, including bus, light rail, and streetcar activities to demonstrate its dedication to safety. The following describes KCM’s overarching goals and the specific targets relative to each goal are provided in the tables following the descriptions:

### 1.1.1 Safety Performance Measure: Fatalities

KCM fatality rates vary across transportation modes due to distinct operating environments and the inherent safety risk exposure associated with each. KCM’s total number of fatalities (including suicides and trespasser strikes) and rate of fatalities are tracked and KCM is committed to reducing the number of fatalities across its system to zero. To accomplish this, KCM has partnered with several community outreach programs to ensure the goal is met.

### 1.1.2 Safety Performance Measure: Injuries

Any harm to persons that requires immediate medical attention away from the scene because of a reportable event is considered to be a reportable injury. KCM reports to the National Transit Database (NTD) anytime a person is transported away from the scene for medical attention, and reports it as an injury, whether or not the person appears to be injured.

If an individual seeks medical care several hours after an event or in the days following an event, that individual is not reportable as an injury. A reportable injury requires that the individual receive medical attention at a location other than the location at which the event occurred. This distinction serves to exclude minor first aid or other minor medical assistance received at the scene.

### 1.1.3 Safety Performance Measure: Safety Events

The safety performance measure captures events meeting NTD reporting thresholds occurring on the KCM system or infrastructure, at a revenue or maintenance facility, during the performance of maintenance activities or involving a transit revenue vehicle. The NTD reporting thresholds include fatalities, injuries requiring immediate medical attention away from the scene, derailment, substantial damage, and evacuation for life safety reasons.

### 1.1.4 Safety Performance Measure: System Reliability

The system reliability measure expresses the relationship between safety and asset condition. The rate of vehicle failures in service, defined as mean distance between major mechanical failures, is measured as vehicle revenue miles operated divided by the number of major mechanical failures[[1]](#footnote-2). KCM continues to invest and plan for a highly reliable, safe operation of its public transportation system. As KCM introduces new vehicles across all of its modes of transportation, it is anticipated that there may be a burn-in period for the vehicles that results in a decrease of reliability. As such, KCM will strive to maintain current system reliability targets during this time period.

## 1.2 Annual Safety Performance Report and Coordination with Stakeholders

KCM disseminates and makes available safety performance targets to the regulatory authorities, Puget Sound Regional Council (MPO) and other stakeholders to aid in the planning process. KCM coordinates safety performance targets with stakeholders to the maximum extent practicable to assist with the selection of safety performance targets.

## 1.3 Safety Performance Targets CY2021/2022

In keeping with SMS philosophy, each division/functional area has established safety performance targets for their safety-critical functions. These are detailed in divisional and functional area annual safety goals and performance measures documentation. Safety performance targets are established in coordination with the Puget Sound Regional Council per the requirements of 49 CFR 673.15(a). The 2021/2022 Safety Performance Targets are:

### 1.3.1 Fixed Route Bus

NOTE: Sound Transit is the owner of ST Express routes and KCM is the contract operator. Safety performance targets for owner agencies are maintained within that organization’s Agency Safety Plan.

|  |  |  |
| --- | --- | --- |
| FATALITIES | Total number of fatalities | Fatality rate by vehicle revenue miles |
| Baseline Data Source | NTD - 5yr Baseline | NTD - 5yr Baseline |
| Target-Setting Methodology | Aspirational | Aspirational |
| Time Period | CY 2021 | CY 2021 |
| Denominator | Total Events | Per Million Miles |
| Goal | 0 | 0 |

|  |  |  |
| --- | --- | --- |
| INJURIES | Total number of Injuries | Injury rate by vehicle revenue miles |
| Baseline Data Source | NTD - 5yr Baseline | NTD - 5yr Baseline |
| Target-Setting Methodology | Percentage | Percentage |
| Time Period | CY 2021 | CY 2021 |
| Denominator | Total Events | Per Mil Miles |
| Goal | 5% reduction: 113 | 5% reduction: 3.44 |

|  |  |  |
| --- | --- | --- |
| SAFETY EVENTS | Total Number of Safety Events | Safety Event Rate by Vehicle Revenue Miles |
| Baseline Data Source | NTD-5Yr Baseline | NTD-5yr Baseline |
| Target-Setting Methodology | Percentage | Percentage |
| Time Period | CY 2021 | CY2021 |
| Denominator | N/A | Per Mil Miles |
| Goal | 5% reduction: 116 | 5% reduction: 3.52 |

|  |  |
| --- | --- |
| AVERAGE DISTANCE BETWEEN MAJOR MECHANICAL FAILURES | |
| Baseline Data Source | NTD-VM – 5yr Baseline |
| Target-Setting Methodology | FTA Guidelines (according to Metro’s Vehicle Maintenance Data Management group) |
| Time Period | CY 2021 |
| Denominator | Miles |
| Goal | <=4600 Miles Between Trouble Calls |

### 1.3.2 Non-Fixed Route Bus

|  |  |  |
| --- | --- | --- |
| FATALITIES | Total number of fatalities | Fatality rate by vehicle revenue miles |
| Baseline Data Source | NTD - 5yr Baseline | NTD - 5yr Baseline |
| Target-Setting Methodology | Aspirational | Aspirational |
| Time Period | CY 2021 | CY 2021 |
| Denominator | N/A | Per Mil Miles |
| Goal | 0 | 0 |

|  |  |  |
| --- | --- | --- |
| INJURIES | Total number of Injuries | Injury rate by vehicle revenue miles |
| Baseline Data Source | NTD - 5yr Baseline | NTD - 5yr Baseline |
| Target-Setting Methodology | Aspirational | Aspirational |
| Time Period | CY 2021 | CY 2021 |
| Denominator | N/A | Per Mil Miles |
| Goal | 0 | 0 |

|  |  |  |
| --- | --- | --- |
| SAFETY EVENTS | Total Number of Safety Events | Safety Event Rate by Vehicle Revenue Miles |
| Baseline Data Source | NTD - 5yr Baseline | NTD - 5yr Baseline |
| Target-Setting Methodology | Aspirational | Aspirational |
| Time Period | CY 2021 | CY 2021 |
| Denominator | N/A | Per Mil Miles |
| Goal | 0 | 0 |

|  |  |
| --- | --- |
| AVERAGE DISTANCE BETWEEN MAJOR MECHANICAL FAILURES | |
| Baseline Data Source | Access Data Management |
| Target-Setting Methodology | Percentage |
| Time Period | CY 2021 |
| Denominator | Breakdowns per 100,000 |
| Goal | < 1 |

### 1.3.3 Light Rail Transit

Sound Transit is the owner of Link Light Rail and KCM is the contract operator. Safety performance targets for owner agencies are maintained within that organization’s Agency Safety Plan.

### 1.3.4 Streetcar

Seattle Department of Transportation is the owner of Seattle Streetcar and KCM is the contract operator. Safety performance targets for owner agencies are maintained within that organization’s Agency Safety Plan.

# 2 Organizational Roles and Responsibilities

## 2.1 Executive Leadership

### 2.1.1 County Council (Board of Directors)

King County is governed by a nine-member elected Council and managed by an elected County Executive. Councilmembers are elected to one of nine geographic council districts and must live in the district they serve. Council members serve four-year terms and the positions are non-partisan. Each Councilmember represents about 240,000 constituents. As the legislative branch of county government, the Council sets policies, enacts laws, and adopts budgets that guide an array of services, including those provided by KCM.

### 2.1.2 General Manager (Accountable Executive)

The KCM General Manager is the Agency’s Accountable Executive. The General Manager is responsible for reviewing and approving the Agency Safety Plan, ensuring there is sufficient human and capital resources to develop and maintain the Agency Safety Plan, adopting safety performance objectives, reviewing ongoing safety data reports, reviewing summary reports related to safety events, and overseeing KCM’s SMS. The Accountable Executive may delegate risk management decisions to senior management; however, they are ultimately responsible for accepting or rejecting safety risks or hazards at KCM.

Specifically, the KCM General Manager is responsible to

* Provide financial and personnel resources sufficient for administration of a world class safety and health program
  + Propose and maintain an adequate budget for implementation of safety programs and the Safety Management System (SMS)
  + Approve and sign written safety programs within the Safety Management System, including the Accident Prevention Program, All Emergency Response Plan, Emergency Management Plan, Security Plan, etc.
  + Ensure that safety and health training sufficient to job duties is provided for all employees
* Hold managers and directors accountable for the execution and performance of the Safety Management System within their areas of responsibility
  + Foster system-wide accountability at all levels
* Ensure the involvement of Safety personnel in long range decision-making processes with system impact such as:
  + Construction of new facilities
  + Procurement of vehicles, tools, and equipment
  + Strategic planning and operations
  + Strategy and direction for safety programs and priorities

### 2.1.3 Deputy General Managers and Assistant General Managers

The KCM Deputy General Managers and Assistant General Managers are responsible to:

* Ensure that the Safety Management System is implemented and executed within his or her areas of responsibility
* Assume the duties of the General Manager as designated by the General Manager with all the authority and responsibilities to ensure that there are no lapses in the Safety Management System

### 2.1.4 Division Directors, Managing Directors, and Deputy Directors

The KCM Division Directors, Managing Directors, and Deputy Directors are responsible to:

* Ensure that the Safety Management System is implemented and executed within his or her areas of responsibility
  + Ensure that performance of the Safety Management System is measured and documented in all areas
  + Ensure that resources and training sufficient to job duties are provided for all employees
* Establish accountability and corrective action

### 2.1.5 Section Managers, Superintendents, Supervisors, and Managers

KCM Section Managers, Superintendents, Supervisors, and Managers are responsible to:

* Ensure that the Safety Management System is implemented and executed within his or her areas of responsibility
  + Ensure that performance of the Safety Management System is measured and documented in all areas of their responsibility
  + Ensure that resources and training sufficient to job duties are provided for all employees
* Work in conjunction with Chiefs and Transportation Safety Administrator on Hazard Identification analysis, tracking, and mitigation as safety concerns are brought forward by frontline employees and the general public

### 2.1.6 Chiefs

KCM Chiefs are responsible to:

* Ensure that the Safety Management System is implemented and executed within his or her areas of responsibility
  + Ensure that performance of the Safety Management System is measured and documented in all areas of their responsibility
  + Ensure that resources and training sufficient to job duties are provided for all employees
* Provide onsite safety orientation to all new or transferred employees
* Hold and document regular monthly safety meetings
* Work in conjunction with Superintendents/Supervisors and Transportation Safety Administrators (TSAs) on hazard identification and mitigation, and manage items on the Risk Register as safety concerns are brought forward by frontline employees and the general public
* Ensure the maintenance of a safe workplace in conformity with Metro safety programs
* Report safety and security concerns and ideas to supervisors and/or safety and security staff

### 2.1.7 Leads and Service Supervisors

### Leads and Service Supervisors are responsible to:

* Ensure that the Safety Management System is implemented and executed within his or her areas of responsibility
* Ensure the maintenance of a safe workplace in conformity with Metro safety programs
* Follow safety practices and procedures as necessary to maintain a safe work environment
* Report safety and security concerns and ideas to supervisors and/or safety and security staff

### 2.1.8 Frontline Employees

Frontline employees are responsible to:

* Follow safety practices and procedures as necessary to maintain a safe work environment and in conformity with applicable regulations, policies, and training
* Report safety and security concerns and ideas to supervisors and/or safety and security staff

## 2.2 Safety Section

Administration of the Agency Safety Plan is provided within KCM by the Managing Director of Safety and Security through the Superintendents of Safety. Safety is responsible for development, implementation, and administration of safety programs within the agency. Safety is responsible for corporate oversight of the safety processes and objectives described within the Agency Safety Plan and for providing safety guidance to agency staff in working to achieve safety performance objectives. Safety staff perform announced or unannounced audits, reviews, inspections, or assessments for the purpose of identifying and eliminating unsafe practices, operations, or conditions not immediately corrected by KCM management.

### 2.2.1 Managing Director of Safety and Security (Chief Safety Officer)

The General Manager has delegated to the Managing Director of Safety and Security the role of the Chief Safety Officer including the authority and responsibility to govern, administer, oversee, and monitor the Agency Safety Plan and resulting safety programs, policies, rules, implementation, and procedures. The Managing Director of Safety and Security reports directly to the General Manager.

The primary responsibilities of the Managing Director of Safety and Security are:

* Ensure that the Safety Management System is designed and implemented within the strategic vision and direction of KCM
* Communicate safety and security information and safety and security performance to the General Manager and ensure that resource needs are communicated upward within the executive ranks at KCM

The Managing Director of Safety and Security collaborates with KCM leadership and key SMS personnel to ensure safe work practices, and interfaces with federal, state, and local authorities, and industry professional organizations. When an immediate and serious safety risk exists, the Managing Director of Safety and Security has the authority and responsibility to order hazardous conditions corrected to acceptable levels or eliminated altogether. The Managing Director of Safety and Security is also empowered to order the cessation of unsafe activities or operations that are evaluated as creating immediate and serious safety risks within the system. The Managing Director of Safety and Security is authorized to conduct or direct mandatory internal safety reviews to determine compliance with the Agency Safety Plan. The Managing Director of Safety and Security may also perform or direct announced or unannounced audits, reviews, inspections, or assessments for the purpose of identifying and eliminating unsafe practices, operations, or conditions not immediately corrected by KCM management.

The Managing Director of Safety and Security has several direct reports, including the KCM Superintendents of Safety, Superintendent of Security, and Safety Data Analyst.

### 2.2.2 Superintendent of Safety

The primary responsibilities of the Superintendents of Safety are the overall KCM safety programs, ensuring that the programs are appropriate, compliant with applicable regulations, properly implemented, and trained to. The Superintendents of Safety are also empowered to order the cessation of unsafe activities or operations that are evaluated as creating immediate and serious safety risks within the system. The Superintendents of Safety may also perform or direct announced or unannounced audits, reviews, inspections, or assessments for the purpose of identifying and eliminating unsafe practices, operations, or conditions not immediately corrected by KCM management.

The Superintendents of Safety have several direct reports, including the Transportation Safety Administrator (TSA) function.

### 2.2.3 Transportation Safety Administrator

The primary responsibility of the Transportation Safety Administrator (TSA) is the administration of safety programs in close coordination with functional area and base staff to ensure the consistent and desired application of the Agency Safety Plan. Day-to-day safety activities are the primary responsibility of the TSA and include hazard identification through inspections and reports, conducting hazard analyses and risk assessments, ensuring regulatory compliance, and developing and providing safety training. The TSA meets regularly with the Superintendents of Safety to discuss safety trends, investigations, and other activities.

### 2.2.4 Safety Data Analyst

The Safety Data Analyst builds the reporting and analytics practice in support of KCM’s Safety and Security Management Systems. This position moves the agency forward by integrating safety and security data into business intelligence and critical decision-making processes and applies data mining, quantitative analysis, and statistics to aid KCM in its decision-making.

## 2.3 Agency Leadership Teams

Effective implementation of SMS requires senior management’s commitment to safety. At KCM, the Strategic Leadership Team was formed with the overarching goal of making KCM as safe as it can be for everyone, starting with transforming the core values of the organization into a positive safety culture. Employees may access agency leadership by elevating issues through their work unit as directed by their managers/director. As appropriate, division directors will elevate issues beyond their division through the Deputy General Manager (for Senior Leadership Team discussion) and/or the Assistant General Manager for Finance & Administration (for Management Leadership Team discussion).

### 2.3.1 Strategic Leadership Team

The Strategic Leadership Team (SLT)’s focus is future-oriented toward achievement of organizational outcomes. SLT is a working forum to:

* Develop Metro’s vision and mission
* Set goals, objectives, and expectations to achieve Metro’s vision and mission
* Develop and manage enterprise-wide strategies to achieve Metro’s vision and mission
* Build organizational capacity to implement Metro’s strategies
* Monitor progress on Metro’s goals and desired outcomes
* Navigate internal/external issues, including legal, resource, political, and reputational
* Make strategic and organizational decisions

SLT decisions have enterprise-wide impact and generally meet at least one of the following criteria:

* Carry potential high risk
* Require a big shift in resources
* Carry potential political or reputational consequences
* Alter Metro-established strategies/priorities
* Are critical to successful achievement of our strategies/priorities
* Are difficult to implement

The SLT is responsible for overall implementation of the Agency Safety Plan through system safety engineering and management processes and the application of safety management principles. Membership in the SLT includes:

* General Manager
* Deputy General Manager
* Assistant General Manager for Strategy and Partnerships
* Assistant General Manager for Employee Services
* Assistant General Manager for Finance & Administration
* General Counsel—Prosecuting Attorney’s Office
* Capital Division Director
* Mobility Division Director

### 2.3.2 Metro Leadership Team

The Metro Leadership Team (MLT)’s focus is maximizing Metro’s capacity and capability. This team manages operational performance by implementing decisions with allocated resources. MLT is a working forum to:

* Manage Metro’s performance and organizational capacity
* Establish operational policies
* Make operational decisions
* Advocate for division issues and needs
* Navigate internal issues, including financial, labor, performance, and structural
* Develop division-led initiatives, milestones, and associated work programs

The MLT’s role relative to safety and hazard management decisions is to assess the safety risks associated with identified new safety hazards, including identifying and assessing changes that have or may introduce new hazards or impact the transit agency’s safety performance. The MLT makes recommendations to the Accountable Executive, who is responsible for ensuring the hazard mitigation decision is communicated to internal and external stakeholders. Membership in the MLT includes all members of the SLT and the following:

* Equal Employment Opportunity/Equity & Inclusion Manager
* Managing Director, Safety and Security
* Rail Division Director
* Marine Division Director
* Bus Operations Division Director
* Vehicle Maintenance Division Director
* Transit Facilities Division Director
* Metro Transit Police Chief

### 2.3.3 Extended Management Group

The Extended Management Group (EMG) is a communication forum to:

* Underscore Metro’s foundational principles: Equity and Social Justice, Safety, and Sustainability
* Relay and discuss information about organizational priorities, issues, outcomes, and performance
* Inform organizational and operational decision-making

EMG is not a decision-making body. It is a forum for sharing organizational information that should be cascaded down into attendees’ respective work groups. Members of the EMG include:

* MLT Members
* Deputy Division Directors
* Section Managers
* Representatives as proposed by Division Directors

# 3 Integration with Public Safety and Emergency Management

KCM develops, maintains, and implements all security and emergency management documentation as required by 49 CFR 673.11(a)(6), hereby incorporated by reference as recommended by FTA. Security and Emergency Management functions are subject to the requirements of Safety Risk Management, the same as all other safety-critical functions at the agency. Documentation of hazard and risk assessments (threat and vulnerability assessments) is maintained by the Managing Director, Safety & Security. Corrective action arising out of security and emergency management functions, including After Action Reports, is the responsibility of the Superintendent of Security in coordination with the other areas and departments.

The following section describes the process used to develop an approved, coordinated schedule for Emergency Management program activities, which includes meetings with external agencies, emergency planning responsibilities and requirements, the process used to evaluate emergency preparedness such as annual emergency field exercises, after action reports and implementation of findings, revision and distribution of emergency response procedures, familiarization training for public safety organizations, and employee emergency management training.

## 3.1 Security and Emergency Management Programs and Plans

The purpose of Emergency Management is to ensure that KCM systems, including the employees, facilities, passengers, and operations personnel, as well as local emergency responders, planning organizations, and mutual aid partners within service area communities, have the ability to respond to and recover from any emergency incident or major disaster. Through effective safety management, emergency management assists in the implementation of KCM safety commitments by utilizing the industry’s best practices and federal standards to:

* Establish a formalized process of verifying compliance with emergency management requirements
* Ensure collaboration with external agencies in the preparation of emergency responses
* Establish emergency management responsibilities and ensure tasks and activities are documented, understood, and can be executed effectively by the applicable parties, including external agencies, employees, and contractors
* Establish communication protocols, backup communication systems, and maintenance of records
* Establish a formalized process of evaluating the effectiveness of emergency response procedures, and revisions if necessary
* Ensure system-wide accessibility and functional needs considerations are addressed during emergencies

Emergency Management provides a comprehensive framework to ensure KCM employees, facilities, and equipment, as well as emergency responders, planning organizations, and mutual aid partners, have the ability to collaborate on response and recovery efforts during any incident. The effective application of safety management principles to the emergency management process further supports the coordination and integration of those programs that are necessary to build, sustain, and improve all interagency activities before, during, and after an emergency.

The Managing Director of Safety and Security, in conjunction with the Superintendent of Security and the Superintendents of Safety, are jointly responsible for emergency planning, training and drills; and, for coordinating the Agency Safety Plan with the System Security and Emergency Preparedness Plan (SSEPP) and other related plans. The Superintendents of Safety review and coordinate planning, training, and drills with the Superintendent of Security. The following agency-wide programs and plans have been put in place to manage the public safety and emergency management functions:

* Emergency Management Program
* Security & Emergency Preparedness Plan
* Emergency Operations Plan
* Emergency Exercise Program
* Inclement Weather Program

### 3.1.2 National Incident Management System

KCM uses and trains to the National Incident Management System (NIMS) for emergency response. Each supervisor and technician is trained in NIMS Introduction, Introduction to Incident Command System (ICS) and ICS for Single Resources and Initial Action Incidents, ICS 100 and ICS 200, NIMS 700. Supervisors and managers may receive additional training in ICS 300 and ICS 400.

### 3.1.3 Continuity of Operations

Emergency plans include operating procedures to manage Continuity of Operations scaled to the level of emergency. KCM’s goal is to continue operations in the event of a major emergency or significant disaster, and, as able, to provide transportation for emergency operations in coordination with the Seattle and King County Emergency Operations Centers.

### 3.1.4 Coordination with City/County and Responder Familiarization

KCM regularly coordinates with local and county jurisdictions for training, emergency planning, and familiarization. Fire and Police Department familiarization is conducted as needed by personnel from the Security and Emergency Management group prior to the annual drill. Familiarization includes identification of all elements of the system that may impact response or the safety of responders, operators, or the public.

## 3.2 Emergency Procedures

While KCM has taken every precaution to avoid emergency events and situations, it is inevitable that incidents/accidents will occur. In order to respond to these unexpected situations in a predefined manner, an Emergency Management Plan (EMP) has been developed and is located on the Transit Security and Emergency Management SharePoint site. Facility evacuation procedures are located in Building Emergency Response Templates (BERTs) throughout KCM properties.

The KCM EMP satisfies FTA’s requirement to include or incorporate by reference an emergency preparedness and response plan or procedures that addresses, at a minimum, the assignment of employee responsibilities during an emergency and coordination with Federal, State, regional, and local officials with roles and responsibilities for emergency preparedness and response in the transit agency’s service area.

Emergencies and disasters, as well as system failure recovery operations, are handled by the Transit Control Center (TCC) and Link Control Center (LCC) under direction of Standard Operating Procedures (SOPs), Standard Maintenance Procedures (SMPs), All-Hazards Response Plan (AHRP), and other written/verbal instructions issued by the Division Directors. The Security and Emergency Management group liaise with local emergency responders and coordinate hands-on training with KCM equipment. Additionally, local responders are invited to participate in the development of drills and other events.

Emergency procedures are reviewed annually by the Superintendent of Security and Emergency Management, Managing Director of Safety and Security, and Division Directors and updated as needed. Procedure revisions and updates are incorporated into evacuation procedures and SOPs are developed for sign-off and distribution.

## 3.3 Drills & Exercises

KCM performs a minimum of one tabletop and/or one field exercise emergency drill each year. The Managing Director of Safety and Security, or designee will coordinate drills and exercises with the Director of Operations Division, Director of Vehicle Maintenance Division, and Director of Rail Division, in consultation with the Managing Director of Safety and Security. Documentation of drills is maintained for 7 years. Drill critiques are held after each drill or actual emergency event. Documentation of the event or exercise is recorded in the After-Action Report, which includes recommendations for improvement in order to continuously improve response.

### 3.3.1 After Action Reports

A report detailing the events that occurred during the event or exercise, and observations and findings requiring action, are prepared by the Superintendent of Security and Emergency Management or designee and presented to Executive Management within 30 days. Implementation of findings is required and is the responsibility of the Division Directors with review and tracking by the Managing Director of Safety and Security through the Capital Action Plan (CAP) process. Changes to procedures shall follow standard agency processes for alteration, review, and approval. Action items pertaining to outside agencies are forwarded to the appropriate contact for their consideration. The Division Directors are responsible for ensuring recommendations are implemented or explaining alternate practice.

# 4 Safety Management System Documentation and Records

The Agency Safety Plan is a controlled document and is managed by the Managing Director of Safety and Security in accordance with the KCM document control protocol. Per the requirements of 49 CFR 673.31, KCM maintains critical files, important, records, and other information as dictated by regulatory compliance and good operating practice. These files are maintained using hard copy and/or electronic files. All records are maintained in structured systems that provide legibility, original dates, revision dates, and easy retrieval. KCM is required to maintain all versions of documents related to this Agency Safety Plan, including those related to the implementation of the SMS, and results from SMS processes and activities, for a minimum of three years after they are created.

KCM acknowledges that not all divisions and functional areas have yet developed full documentation to support the requirements of the Agency Safety Plan; however, per FTA guidance, each division and functional area is creating a document inventory, identifying all documentation needing development or revision to conform to the Agency Safety Plan, as well as a corrective action plan to close the document gaps.

## 4.1 Agency Plans & Programs

Agency plans lay out an objective and vision, while programs contain specific steps. Both plans and programs may be applied agency-wide.

### 4.1.1 Agency Safety Plan

The Agency Safety Plan is considered a living document in that it is continually edited and updated. Updates to the Agency Safety Plan reflect changes to operating or maintenance procedures, policies, rules, the operating environment, or in response to regulatory requirements, audit findings, investigations or other reviews. The Agency Safety Plan annual review and update process ensures that executive management has reviewed and approved the Agency Safety Plan before any changes are submitted to internal and/or external stakeholders.

The Agency Safety Plan is reviewed on an annual basis (once per year) as required by regulation. When a revision is required, the Managing Director of Safety and Security is responsible for initiating, developing, and revising the Agency Safety Plan on behalf of KCM. Review of the Agency Safety Plan is conducted with the Division Directors in each affected functional areas and Safety. The final draft, including all changes, is approved by the General Manager via the Policy Statement and Authority signature found in section 1 of the Agency Safety Plan.

The Agency Safety Plan must be revised when a system expansion or major project affects the system, such as a new station or transit center, additional routes or rail lines, new or expanded operations and maintenance facilities, or significant system-wide equipment modifications or replacement. The revised Agency Safety Plan should be submitted to the WSDOT Program Manager or other regulatory authority as required at least 180 days prior to when the system expansion or major project goes on line, including before the opening of a new transit center or station or additional route or rail line begins passenger service, and before construction or testing is completed.

The revised Agency Safety Plan, or letter certifying that the Agency Safety Plan does not require revision, is submitted to the FTA or other regulatory authority as required, annually on or before March 1, or 180 days prior to system expansion or major project completion. The FTA must formally accept or provide comments on the Agency Safety Plan in writing. If the submittal requires revisions based on FTA comments, the revised plan must be submitted within 60 calendar days of notification.

The Agency Safety Plan will be delivered to the FTA in electronic format via email. Once the Agency Safety Plan has been approved by the FTA, KCM will distribute the plan to stakeholders using methods established in the Safety Communication Policy.

### 4.1.2 Transit Asset Management Plan

The KCM Transit Asset Management (TAM) Plan describes: the capital asset inventory; condition of inventoried assets; TAM performance measures, targets, and prioritization of investments aligned with the agency’s TAM and State of Good Repair (SoGR) policy, strategic goals and objectives; as well as the strategies, activities, and resources required for delivering the plan (including decision support tools and processes); and other agency-wide approaches to continually improve TAM practices.

SECTION II: SAFETY RISK MANAGEMENT

KCM has developed its Safety Risk Management Process as required in 49 CFR 673.25(a), which is applicable to all elements of the system. It is the goal of KCM to use safety risk management to identify all existing and foreseeable hazards, identify reasonable consequence(s) of those hazards that may result in adverse events, analyze those consequences to evaluate the risk, and establishes controls to manage those risks to the lowest practical level.

The Safety Risk Management process must consist of the following activities:

* Hazard Identification and Analysis
* Risk Mitigation

Safety risk management encompasses the use of safety analysis tools by adequately staffed and trained personnel and departments, groups and committees, as well as the use of Subject Matter Experts (SMEs) wherever appropriate and necessary.

In addition, the Safety Risk Management process at KCM is integrated with its safety assurance program to ensure that safety risk mitigations are evaluated for effectiveness over time. Safety Assurance processes are described in Section III.

# 5 Hazard Identification and Analysis

All employees, departments, and contractors are required to identify hazards, report them, and mitigate them appropriately.

## 5.1 Hazard Identification Sources

There are a variety of sources for hazard identification such as:

### 5.1.1 Reactive Hazard Identification

Reactive hazard identification involves analysis of events or outcomes that have already occurred. Hazards are identified through investigation of safety occurrences (including close calls), adverse events, and hazard reporting from the field (such as rules compliance activities, safety committee meetings, and customer reports) where adverse outcomes have been experienced on the system.

### 5.1.2 Proactive Hazard Identification

Proactive hazard identification involves real-time situations, which is the primary job of the safety assurance function through departmental inspections, audits, evaluations, observations and assessments; proper change management; training quality assurance programs; failure trend analysis; and the employee and contractor safety reporting programs. This involves actively seeking to identify hazards and mitigating them effectively before adverse events occur.

### 5.1.3 Predictive Identification

A specialized subset of proactive hazard identification is predictive identification, which involves the thorough and timely analysis of safety data collected by all departments and functional areas to identify possible negative future outcomes or events, as well as monitoring the system in real time.

### 5.1.4 Regulatory Agency Data and Information

FTA and other regulatory agency data and information as required by 49 CFR 673.25(b)(2), as well as industry experience, best practices, and lessons learned are used in safety risk management.

### 5.1.5 Employee Reporting Systems

KCM has multiple avenues by which employees and contractors can report hazards. All reports of hazards are properly documented by the receiving party, no matter the source.

KCM requires all employees to identify hazards, mitigate them immediately if possible, and to report them regardless of action taken. Employees are encouraged to report through their chain of command, including their immediate supervision, or management if supervision is not available, or through the safety committee process. If these routes of reporting are not available, or may result in harm to the employee, reporting through other means is available.

Employees may report any perceived safety issue or hazard to their safety committee representative for investigation and resolution.

KCM employees can submit safety concerns and complaints directly to management through the Safety email address (MetroSafety@kingcounty.gov), via Safety and Security Data Management (SSaM) program (using the Origami Risk platform) or through direct contact with a management or safety staff member.

Customer safety complaints received are forwarded to the responsible division/functional area and the Chief Safety Officer. The division/functional area investigates the report with support from key SMS personnel, and develops and implements corrective action as needed to properly address risk. Employees can conceivably use this process if they are worried about anonymity.

No matter what the source of information, nor which division/functional area investigates and resolves the issue, the feedback loop to the reporting employee is required. If the report is anonymous, the outcome of the report, investigation, and any corrective action or mitigation is distributed to every committee or division/functional area for the information of every employee.

## 5.2 Hazard Investigation

Hazards are investigated by key SMS personnel in each department as they are reported or identified. These designated personnel coordinate the investigatory activities and ensure they investigation is properly documented.

The purpose of investigation is to evaluate the hazards in terms of reasonable consequences (especially in the case of proactive identification) and to examine the frequency and severity of the consequences. Once these have been established, the safety risk index can be identified. If the hazard is currently mitigated, investigation involves assessment to establish if current mitigations are sufficient to address associated risk or if changes or additional mitigations are warranted to further reduce risk.

Once the investigation activities have been completed, risk may be assessed. All investigations distributed to the Managing Director of Safety and Security and the executive level for each area once risk is assessed and documented and corrective action plans developed.

# 6 Risk Mitigation

Safety Risk Mitigations are methods or processes to manage risk agency-wide. Once risk is identified, KCM must ensure that it is not accepting increased risk without the proper level of management decision nor misallocating safety resources if existing mitigations are sufficient.

## 6.1 Risk Mitigation Strategy

Strategic decisions are made to ensure that risk is reduced to the lowest practical level. The risk mitigation strategy in place at KCM follows FTA guidance.

* Avoid: Avoidance removes the undesired consequence, such as canceling or delaying the operation or activity until risk is appropriately mitigated.
* Reduce: Risk reduction is the application of mitigations to reduce probability or severity to an acceptable level. It is noted here that it is rarely possible to reduce severity without engineering or operational configuration changes (such as speed reduction).
* Segregate: Segregation limits the exposure of people, assets, operations, or activities to the consequences of the identified hazards.

### 6.1.1 Hierarchy of Mitigation

The hierarchy of mitigation used by KCM are:

1. Design out the hazards
2. Install safety devices
3. Use warning systems
4. Implement administrative controls (rules, procedures, training)
5. Require Personal Protective Equipment (PPE)

### 6.1.2 Mitigation Criteria

Criteria that KCM may use to identify when mitigations or strategies may be necessary to reduce the likelihood or severity of consequences are:

1. Identification of risk level acceptability
2. Cost-benefit analysis
3. Availability of technology
4. Changes to procedures, rules, or training
5. Service changes

If risk needs to be mitigated beyond existing mitigations, or when new hazards are identified and require corrective action, a corrective action plan must be developed, approved by Chief Safety Officer or designee, and implemented. Per 49 CFR 672 implementation guidance from FTA, personnel involved in the development of Corrective Action Plans (CAPs) must be trained and certified; key SMS personnel must, therefore, be involved in the development of CAPs in every department and functional area.

Risk still exists even after mitigation; that risk is owned by the department in which the risk is created and mitigated, to implement, monitor, and manage that risk on a daily basis.

## 6.2 Risk Training

As part of the Safety Management System, each level of employee must be trained to respond to hazards appropriate to their level of authority and responsibility.

Front line employees (and contractors) are trained to recognize hazards, report them and identify what activities are required for mitigation, such as corrective maintenance, avoidance of collisions, stop hazardous work, use of PPE, rules compliance, use of Incident Command, setting up barriers, etc.

Technical managers are trained to respond to and investigate hazards and deploy resources at their disposal to address and mitigate hazards under their control. When additional resources are needed, technical managers inform executive management in a timely manner of the need for additional resources and why.

Executive management must allocate resources based on risk and, if resources are not available, ensure that no activities take place until risk is mitigated to an acceptable level.

## 6.3 Risk Register (Tracking)

Each division/functional area is responsible to maintain a hazard log or risk register to document its hazard and risk activities; track its risk and mitigations to ensure that no unacceptable risk is assumed due to error or omission; ensure that corrective action is developed, approved, and implemented; and adequately and appropriately monitor the mitigations to assure that the mitigations effectively reduce risk and no new hazards are created.

Additionally, all hazards are entered into the KCM SSaM database to enable the Managing Director of Safety and Security to review and monitor hazard management in the departments.

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SECTION III: SAFETY ASSURANCE

# 7 Safety Performance Monitoring and Measurement

## 7.1 Safety Data Acquisition and Analysis

KCM divisions/functional areas are each responsible to identify, collect, and analyze data on their safety critical functions. This information will be used for three purposes:

1. To ensure all divisions/functional areas establish and achieve performance targets related to their daily operations, such as rules and procedure compliance, sufficiency, and accuracy of procedures and documentation, safety events, proper management of change, and completion of safety-critical tasks in a timely manner
2. To ensure that system-wide performance measures are being met through monitoring data associated with them in the appropriate division/functional area
3. To ensure through wide distribution and sharing of safety data and analyses that all divisions/functional areas are aware of trends, hazards, and safety performance in all other areas

Sources of data at KCM include, but are not limited to:

* Employee reporting systems, including self-reporting
* Field reports and observations from supervision and managers
* Preventive maintenance and other scheduled inspections
* Drills and exercises and critical incident debriefings from actual emergency events
* Internal safety and security audits, and internal controls reports and activities
* Quality assurance and quality control inspections, audits, and other activities
* Customer and public comments, complaints, and recommendations
* Employee, passenger, and public reports of injury
* Planning and scheduling data collection
* Key performance indicators
* Incident and anomaly reports
* Investigations (hazards, collisions, derailments, security, etc.)
* NTD data collection and reporting
* Safety activities (job briefings, awareness campaigns, division/functional area meetings)
* Safety and security certification, system modification, and procurement activities
* Drug and alcohol compliance programs
* Training and training QA activities
* Rules and procedures compliance activities
* Public Information
* Public meetings
* Safety committee activities and reports
* Transit asset management activities

Each division/functional area uses a standard operating procedure describing the type of data they collect, the frequency with which it is analyzed, the process of development of annual performance targets and objectives related to Safety Management System compliance, how progress is monitored toward those objectives, how data on progress is shared system-wide, and how corrective actions for deficiencies or non-compliance in Safety Management System are addressed.

KCM always seeks to broaden and refine the focus of its monitoring activities to ensure safety risk mitigations are included in ongoing data capture. The agency requires all division/functional areas to observe normal operations, including in the field, and also to gather voluntary, de-identified data and information through its employee reporting program to ensure hazards are identified as soon as possible and that data is collected from the activities to analyze trends and prevent re-occurrences and future adverse consequences.

Each division/functional area submits its data reports to the Managing Director of Safety and Security and its Director in its area for review and verification. Directors are expected to discuss data and safety performance at every Executive Safety Committee (ESC) meeting so that deficiencies and lapses may be appropriately addressed in terms of risk and resources system-wide.

## 7.2 Rules and Procedure Compliance Activities

A robust SMS requires ongoing safety assurance activities, including continuous performance monitoring performed in the field with real-time assessment and data analysis, to provide management with the timeliest information as to safety management and performance and meet the requirements of 49 CFR 673.27(b). KCM’s goal is to eventually implement its monitoring activities in the integrated, ongoing, and immediate manner described by FTA in its guidance documentation; that is, to check the “pulse” of safety performance in real time. At this time, the program is not fully real-time.

KCM Policy establishes procedures for development, revision, maintenance, management, and enforcement of rulebooks and procedures. The Executive Safety Committee provides oversight and executive management review of this process to ensure the consistency and integrity of the rules and procedures compliance process. The SOP requires that the division/functional area maintain accurate compliance records. Records shall be kept both on observations and on action taken to correct observed deficiencies.

Personnel responsible to perform rules compliance shall be properly trained and refreshed as needed in rules compliance tasks, activities, and proper documentation. It is incumbent upon those performing rules and procedures compliance to report results through their chain of command in as close to real time as possible, especially as to needed corrective action.

### 7.2.1 Annual Compliance Assessments

To accurately identify practical drift, the division/functional area must conduct at least once annually a procedures compliance assessment. Each division/functional area will have standard operating procedures for this process.

Each division/functional area is required to enter its data on rules and procedures compliance in a database so that analysis and trending can be performed. This process must be part of its safety data SOPs as described in section 7.1 above. The Managing Director of Safety and Security or designee performs oversight and assurance on rules and procedures compliance, and verifies hazard assessment, corrective action and reporting compliance. Also, as stated above, the Executive Safety Committee has oversight of this process and will discuss compliance activities and outcomes at each Executive Safety Committee meeting.

## 7.3 Internal Safety Audits (Reviews)

KCM has four types of required internal safety reviews to monitor compliance with its Safety Management System. These reviews are required under 49 673.27(b)(2). They are:

### 7.3.1 Triennial Internal Safety and Security Audit Program

This program, required under 49 CFR 674.27(a)(4), is owned by the Accountable Executive and implemented by the Managing Director of Safety and Security or designee. Each division/functional area is reviewed for compliance with the Agency Safety Plan and all of the division/functional area internal requirements once every three years. Non-compliances, deficiencies, and failures of Safety Management System require corrective action to be developed and implemented by the division/functional area.

The Managing Director of Safety and Security has a procedure and fully documents all triennial audit activities. All audits are shared with the ESC and the division/functional area audited, and they are made fully available to all other division/functional area. The Executive Safety Committee provides oversight and executive management review of this process to ensure consistency and the integrity of the internal safety and security audit process.

### 7.3.2 Reviews of Safety Standards and Requirements

FTA’s guidance documentation for implementation of 49 CFR 673.27(b)(1) states the transit agency must ensure that its Agency Safety Plan addresses the following:

1. Identification of all operations and maintenance procedures (safety standards and requirements, both internal to the agency as well as in recognition of any safety standards and requirements) subject to this section
2. Activities for reviewing safety standards and requirements to ensure they are current
3. Activities a transit agency will implement to monitor compliance with documented safety standards and requirements

Under these requirements, each division/functional area will conduct a review of applicable safety standards as part of its internal controls process. The process will be fully documented in the internal controls report, and corrective action will follow all requirements for the internal control process.

### 7.3.3 Internal Controls

FTA’s guidance documentation for implementation of 673.27(a) states: "Each transit agency must conduct an annual review of the effectiveness of its safety risk mitigations."

Pursuant to this requirement, each division/functional area must annually audit its own Safety Management System compliance; that is, each division/functional area must audit its safety policy compliance to ensure that hazards are identified and addressed through the SRM process, which results in safety risk mitigations monitored through the Safety Assurance process by persons trained and qualified to do so through safety promotion activities, including its progress toward its safety targets. This program is called internal controls. Each division/functional area must have a procedure to perform this activity, which is implemented by its properly trained and qualified key SMS personnel, with the assistance of SMEs if needed, and the oversight of the Managing Director of Safety and Security to ensure integrity and compliance.

The internal controls must be performed annually prior to the start of the revision process to the Agency Safety Plan so that any appropriate necessary modifications to the Agency Safety Plan can be incorporated during the revision process. This requirement aligns with the expectation FTA has expressed in its guidance documentation that continuous improvement (49 CFR 673(d)(1) activities should be completed in conjunction with the annual review and update of the safety plan.

### 7.3.4 Monitoring of Safety Performance Measures

Monitoring of the system wide Safety Performance Measures, identified in Section 1 of this document, requires each division/functional area that collects data directly applicable to the Performance Measures report these measures through Directors monthly, for discussion at the ESC. This activity should be documented as part of the SOPs required of each division/functional area.

Each division/functional area is required to monitor employee reporting in its area and report out monthly on activities related to employees who report safety issues directly to their division/functional area for investigation and remediation. The Managing Director of Safety and Security or designee will conduct monthly assessments of the anonymous hazard and safety reports and any reports that the Managing Director of Safety and Security receives directly, unless anonymity is compromised where it was specifically requested. Division/functional area monthly monitoring information will be provided to the Accountable Executive monthly for each area under the Directors’ control and discussed at the Executive Safety Committee. In addition, all monthly monitoring of employee reporting will be made available for access by each division/functional area. Each division/functional area has standard operating procedures for investigating, monitoring, and documenting employee reporting in their areas of control.

Internal safety reviews are designed to monitor all activities and functions to identify non-compliances and correct them, identify hazards and implement mitigations to reduce risk to the agency, and identify any existing mitigations that may be ineffective, inappropriate, or were not implemented as intended as required under 49 CFR 673(b)(2).

Any division/functional area that has a non-compliance, deficiency, or defect in its safety management program must develop a corrective action through its key SMS personnel, ensure it is approved by the SSO, and implement it according to the approved time frame.

## 7.4 Safety Assurance Maintenance and Support Functions

In addition to the above described safety assurance activities that apply for each division/functional area, there are maintenance and related support functions under the purview of the Deputy General Manager, who performs specific activities for safety assurance that do not occur elsewhere in the agency.

These functions of maintenance control are fully documented in Maintenance Control Plans, processes and procedures for the following areas:

1. Preventive, Predictive, and Corrective Maintenance
2. Facilities Management
3. Support activities, including contracted activities (component repair, equipment repair, overhaul, metrology, transportation, mainline recovery, fabrication)
4. Hazard Management, Quality Assurance, and Quality Control
5. Lifecycle Planning, including reliability and maintainability
6. Supply Chain, Procurement, and Materials Management and Warehousing
7. Engineering, including contracted services
8. Transit Asset Management support and interface

In addition to the requirements listed below, all Maintenance Control Plans will also describe how all functions are managed by safety and how those safety management activities are monitored, overseen, verified, and documented. In addition, each area will also describe how plans are developed and maintained, by whom they are authorized, review and revision intervals (annually to occur prior to revision of the Agency Safety Plan), and where they are archived and maintained for the entire agency to review.

### 7.4.1 Preventive, Predictive, and Corrective Maintenance

For each area requiring maintenance activities, the Maintenance Control Plan will describe as applicable:

1. All inspections, their intervals and requirements, and their documentation, verification, and distribution
2. The standards (regulatory, industry, and internal) for all aspects of maintenance
3. Procedures for all aspects of maintenance and where they are found (OEM manuals, Maintenance Management of Information System, etc.)
4. Testing processes and procedures for all maintenance activities
5. Standards and requirements for scheduled maintenance, deferred maintenance, and determination (destruction/condemnation/disposal)
6. Sources of reporting for deficiencies
7. Equipment and small and large tools required to perform the maintenance activities, including IT systems, software, and hardware
8. Minimum training requirements for personnel engaged in maintenance activities

### 7.4.2 Facilities Management

For each maintenance area that uses or is housed in a physical facility, the Maintenance Control Plan will describe:

1. Safety and security procedures for the facilities, to include fire/life safety and security equipment inspections, structural and other safety inspections, access control, lot and yard control, and security and emergency preparedness plans and procedures
2. The standards (regulatory, industry, and internal) for all aspects of facility maintenance
3. Procedures and guidelines for all aspects of maintenance and where they are found (Original Equipment Manufacturer manuals, American Society of Mechanical Engineers, International Building Code, local jurisdictions, Maintenance Management of Information System, etc.)
4. Standards and requirements for scheduled maintenance, deferred maintenance, and BUL determination (destruction/condemnation/disposal)
5. Sources of reporting for deficiencies
6. How facilities deficiencies are reported, addressed, and tracked to closure
7. Equipment and small and large tools required to perform the maintenance activities, including IT systems, software, and hardware
8. Minimum training requirements for personnel engaged in maintenance activities

### 7.4.3 Hazard Management, Quality Assurance, and Quality Control

For all maintenance and support areas, the Maintenance Control Plan will describe:

1. Procedures and documentation of how hazards are managed in daily activities
2. Defects and issues found in inspections
3. Opening of work orders
4. Tracking of work orders
5. Closing of work orders
6. Failure trend analysis of hazards associated with the maintenance activities in the area
7. Quality assurance and control procedures and activities applicable to:
   1. Production
   2. Procedures
   3. Parts and supplies
   4. Equipment
   5. Documentation
   6. Data collection and analysis
   7. Schedules
   8. Lifecycle assessment
   9. Transit asset management

### 7.4.4 Lifecycle Planning

For all maintenance and support areas, the Maintenance Control Plan will describe all procedures and activities supporting lifecycle planning as appropriate. The requirements include that input from the division/functional area be incorporated into the acquisition process for new equipment; the rehabilitation programs for facilities and equipment under its care and control; the determination of useful life; and the disposal process. It will also include the process and activities of each division/functional area for reliability and maintainability studies, which are mandatory for new systems and equipment and rehabilitations, as the process of decision-making for allocation of resources for safety must be fully documented, and lifecycle planning is a critical aspect of that decision-making process.

### 7.4.5 Engineering

For all maintenance areas, the Maintenance Control Plan will describe all procedures and activities for which engineering support is required. This will include changes to equipment design, function and configuration; support in the acquisition process; testing and assessment procedures; changes in procedures, parts, fabrication, or methodologies for maintenance; reliability and maintainability studies and assessments; lifecycle planning; failure trend analysis; hazard identification and analysis, including failure mode and effects analysis (FMEA), failure mode effects and criticality analysis (FMECA), and other engineering assessments; and division/functional area configuration management support activities, including as-built, schematics and other diagrams.

The Maintenance Control Plan sections on engineering must describe how engineering documentation is developed and maintained, by whom it is authorized, its review and revision intervals, and where it is archived and maintained for the entire agency to review.

### 7.4.6 Transit Asset Management

For all applicable maintenance and support areas, the Maintenance Control Plan will describe all procedures and activities required to support transit asset management and the development and maintenance of the Transit Asset Management Plan (TAMP).

# 8 Management of Change

Change management is a process for identifying and assessing changes that may introduce new hazards or impact the transit agency's safety performance. The FTA indicates that a transit agency must determine how a change may impact its safety performance and then evaluate the proposed change through its Safety Risk Management process (under development) to analyze the proper mitigations needed to address risk associated with the change. The ESC is responsible to ensure that change is properly managed at all levels, and to guide decision making and resource allocation.

A robust SMS requires that the agency understand that all change introduces risk and that risk must be managed appropriately through the Safety Risk Management process. Change can introduce new hazards or have an impact on the suitability or effectiveness of existing mitigations. Each department and functional area must, both proactively and through its safety assurance activities, ensure it identifies all change, evaluates it appropriately, and implements mitigations so that risk is managed to acceptable levels during and after the change. The change management policy will be designed to ensure that operations may not continue or proceed in the changed environment until the change is evaluated to determine the impact on safety; and if there is increased safety risk, the risk is mitigated to an acceptable level.

All change management at KCM will be managed by this process through documented procedures, which are implemented through the key SMS personnel.

The activities FTA has identified to ensure that change is properly recognized include the following:

* Monitoring service delivery activities (including field observations)
* Monitoring operational and maintenance data
* Assessing external information
* Assessing the employee safety reporting program
* Conducting evaluations of the SMS
* Conducting safety audits, studies, reviews, and inspections
* Conducting safety surveys
* Conducting safety investigations

The following areas are specialized sources of risk associated with change.

## 8.1 Safety and Security Certification

Safety and Security Certification (SSC) is an FTA-defined process of verifying that certifiable elements and items comply with a formal list of safety and security requirements developed for major construction, rehabilitation, or vehicle procurement projects. Certifiable elements are those project elements that, as determined through hazard analyses and/or threat and vulnerability assessments, can adversely affect the safety and security of customers, employees, emergency responders, or the public. The requirements are defined by design criteria, contract specifications, applicable codes, industry safety, and security standards. SSC is applied to projects that may reasonably be expected to pose hazards or security risks to KCM passengers, employees, and emergency response personnel.

SSC is accomplished through a collaborative effort between the Managing Director of Safety and Security or designee and the applicable Project Team, which may include representatives from other KCM departments, as well as project contractors.

The safety and security certification process will ensure that:

1. Design and operating hazards and security vulnerabilities are identified, evaluated, and properly controlled or mitigated prior to the commencement of passenger service
2. All safety and security critical elements are evaluated for compliance with all identified safety and security requirements during the design, construction, installation, testing, and start-up phases of a project
3. All systems are operationally safe and secure for customers, employees, emergency personnel, and the public, prior to entering (or re-entering after modification) revenue service or returned to use by KCM personnel

The Safety and Security Certification Review Committee (SSCRC) is accountable to the ESC for the overall conduct and implementation of the Safety and Security Certification program, and approval of certification documentation in accordance with the SSCP. The makeup of the committee varies with the nature of the project as described in the SSCP and may include SMEs.

## 8.2 System Modification

Physical changes to the system that are not governed by the Safety and Security Certification process often fall under the engineering modification process. This includes evaluation and assurance that a proposed modification does not create unacceptable or undesirable risk in a system, vehicle, equipment, or facility previously certified under the System safety and security certification process.

Departments and functional areas that contemplate or require a physical change must follow the requirements of the change management policy, which will define the process for initiating, evaluating, processing, and implementing modifications or improvements to systems, vehicles, facilities, and equipment.

IT systems requiring physical changes will be subject to a different process for assessing and addressing risk associated with change. Configuration changes proposed for the agency will be risk rated through any contractor performing work and will be approved by the executive safety committee.

## 8.3 Configuration Management

Configuration management encompasses the administrative activities concerned with the creation, operation, maintenance, documentation, controlled change, and quality systems of the agency. The Configuration Management Program will ensure that the documentation of KCM property, vehicle, equipment and systems design elements, and system-wide documentation is accurate and current. This program will ensure that all documentation of required tasks, processes, and activities are reviewed and revised as needed or on an annual basis. This review and revision will coincide with the review and revision of the ASP; all changes to documentation are implemented, as required, through the Safety Risk Management process and fully documented; and that all documentation is maintained according to the relevant requirements of 49 CFR 673 and 674, namely, all documentation is maintained in all forms (versions, revisions, supersessions, obsolescence) for a minimum of 3 years from the date of creation, with the exception of risk assessment and safety training documentation, which are maintained indefinitely.

The KCM Configuration Management Program establishes authority and responsibility to manage the risk associated with changes to the configuration of all KCM infrastructure and facilities. Documentation is controlled and tracked for all configuration issues. This includes document and version control, access to and maintenance of documentation, and a document inventory tracking the status of all documentation managed by the department or functional area.

## 8.4 Procurement

FTA’s guidance documentation for 49 CFR 673.25(b)(1) indicates that “FTA expects each transit agency to develop measures to ensure that the safety principles, requirements, and representatives are included in the transit agency’s procurement process.”

The division/functional area baseline risk assessments should establish the acceptable risk associated with existing processes and procurement criteria. When the agency must make new procurements; changes to existing materials, vendors, and contracts; or makes changes to the procurement process itself, KCM must make these changes to the system per the Safety Risk Management process of this Plan.

The process established for procurement follows the same steps as other change:

1. The division/functional area must assess whether the change (procurement) will carry risk and if that risk must be mitigated in order to implement the change
2. A risk assessment following the principles and procedures delineated in Section 2 must be performed and documented through a qualified and certified individual in the department or area, supported by SMEs where appropriate, including the Managing Director of Safety and Security, engineers, and end users
3. Once risk is established, mitigations as needed must be in place before the change can be made
4. The change (procurement) can be implemented

Procurement maintains internal documentation of the required tasks and activities to effect procurements within statutory and internal requirements, including the requirements of this section.

# 9 Continuous Improvement

Continuous Improvement is the process by which KCM examines its safety performance to identify safety deficiencies and carries out a plan to address the identified safety deficiencies. It consists of formal activities designed to evaluate the effectiveness of the Safety Management System. Specifically, it will:

1. Identify the causes of sub-standard performance of the Safety Management System
2. Determine the implications of sub‑standard performance of the Safety Management System in operations
3. Eliminate or mitigate such causes

Safety Management System key elements are proper management of all activities through the Safety Risk Management process; proper change management; compliance activities, including those contained in Section 3; and performance auditing. FTA considers the auditing process to be the primary means of evaluating Safety Management System performance.

Annual internal controls are primary in this process because they are performed and are completed prior to the beginning of the revision process of the Agency Safety Plan. Once deficiencies in the Safety Management System are identified, corrective action must be implemented.

SECTION IV: SAFETY PROMOTION

A robust Safety Management System is dependent upon ongoing management commitment to addressing risk through training and communication. Safety Promotion is the component of SMS that demonstrates this commitment to ensure all employees are properly trained to perform their tasks and activities safely and to encourage and motivate employees in all divisions to communicate openly about safety.

# 10 Safety Communication

Effective safety communication is an essential element to safety promotion. The purposes of safety communication are:

1. Ensure that personnel are aware of the SMS
2. Convey safety-critical information
3. Explain why particular safety actions are taken
4. Explain why safety procedures are introduced or changed
5. Provide feedback on employee-reported hazards and safety concerns

The feedback loop is discussed in the Safety Risk Management section as it is related to the employee reporting program. There are other important safety communications avenues described in this section.

The primary safety communication responsibility of Executive Management at KCM under the requirements of 673.23(c) is to actively and personally communicate the Safety Management Policy to all employees and contractors. Any changes to the Safety Management Policy must be approved and distributed through the Executive Safety Committee to all employees. This is primarily implemented through the committee process, but every Division Director is also required to visibly endorse the Safety Management Policy to employees in the area they control.

## 10.1 Communication Avenues

KCM uses multiple means to communicate safety information, why and what actions have been taken, and why procedures are implemented or modified:

* Special Orders
* Safety Advisories and Safety Directives
* Safety Bulletins (distributed as needed)
* Safety Blitzes
* Safety Data Analysis Report (SDAR) (distributed monthly by KCM Safety)

### 10.1.1 Accountable Executive Briefing

At least every month, the Managing Director of Safety and Security provides a safety briefing to the General Manager and members of the ESC. Topics include, but are not limited to accidents, outside inspections, recent hazard management activity, safety training status, base safety committee meetings, regulatory issues, major projects, regular duties, security, emergency management, and any high-level safety risks and/or activities that have been conducted or are ongoing.

### 10.1.2 Management Leadership Team Briefing

Every month, the Managing Director of Safety and Security provides a briefing of safety and security activities to members of the Management Leadership Team. Topics include regulatory agency activities and hazard management activities.

### 10.1.3 Monthly Business Review

Every month, members of the safety and security workgroups provide updates to division leaders on trends and statistics including accidents/incidents, on-the-job injuries, fare enforcement, fare violation, and safety training.

## 10.2 Safety Committees

### 10.2.1 Executive Safety Committee

The Executive Safety Committee is the primary group responsible to provide guidance and direction to the agency and to the Accountable Executive on acceptable and unacceptable risk, resource allocation, the status of SMS implementation for each of their areas of control and the promulgation of safety policy and SMS agency-wide.

The Executive Safety Committee is composed of the General Manager (Accountable Executive) and all of the Division Directors. It is chaired by the Managing Director of Safety and Security. Members may invite division personnel and subject matter experts to attend on an as-needed basis, but these invitees do not have voting powers.

The Executive Safety Committee may establish subcommittees, such as a Safety and Security Certification Review Committee (SSCRC), on an as-needed basis. The Executive Safety Committee meets a minimum of monthly, and the agenda will be published one week in advance. It requires each Division Director to present a report on the SMS status of their area of control (all four components) as well as address any deficiencies, resource issues, investigations, or corrective actions ongoing in the area with the other members of the Executive Safety Committee.

KCM has established procedures for development, revision, maintenance, management, and enforcement of rulebooks, policies, and procedures in the SOP. The Executive Safety Committee provides oversight and executive management review of this process through Safety Assurance to ensure consistency and the integrity of the rules and procedures modification process. These revisions are made on an as-needed basis. Annual review takes place immediately after the annual approval and submission of the ASP to the FTA.

Under the requirements of 673.29(b), FTA has provided guidance that the Executive Safety Committee must provide information on hazard resolution and Safety Risk Management, safety performance, and resource issues agency-wide. This is implemented through the Executive Safety Committee’s reporting to the lower-level safety committees listed below.

### 10.2.2 Employee Safety Committees

Employee Safety Committees are front-line level safety committees established to address local safety issues through the Safety Risk Management process and to assist in developing effective safety programs. The Employee Safety Committees establish and foster a close working relationship with employees, unions, and management regarding safety issues. Employees are trained that they may report any perceived safety issue or hazard to their Employee Safety Committee representative for investigation and resolution if they choose to do so. Subject matter experts also serve as advisors to the Employee Safety Committees. Membership is determined by each individual committee charter and will include local supervision, union representation, and non-management employees. Unresolved hazards from the Employee Safety Committee shall be forwarded to directly to the Executive Safety Committee.

In addition, employees can report hazards directly via the anonymous reporting avenues established by KCM.

# 11 Competencies and Training

FTA has provided in its guidance documentation for 49 CFR 673.29 the expectation that each transit agency will establish a comprehensive safety training program. To fulfill this requirement, KCM is developing a system-wide training policy and program. This program includes the requisite information on the training responsibilities for all divisions.

These are:

1. Agency Safety Training Program (industrial safety, respirators, blood-borne pathogens, Safety Management Systems, hazard management, etc.)
2. Division and functional area responsibilities for training, training functions at KCM, and areas responsible for providing training, including all on-the-job training and technical training programs for supervisors
3. Vendor-provided training programs controlled by KCM
4. Required initial training by division, area, and position (including training matrices)
5. Technical and administrative training requirements, certifications, and qualifications (internal and external) by position
6. Required refresher training by division, area, and position
7. Contractor training requirements
8. KCM Agency Safety Training Plan, including training records creation, access, and maintenance
9. Training Quality Assurance Program (to be developed), including continuous improvement, gap analysis, and feedback and assessments (student and trainer)
10. Train-the-trainer program (to be developed)

Division Directors in each area are responsible to ensure that training requirements are documented and implemented in the areas under their control. They are also responsible to ensure that any training provided under their leadership meet the requirements of the KCM Agency Safety Training Plan.

Division leadership are responsible for ensuring that all employees know and understand their training duties and responsibilities, and that training requirements are met.

All employees are responsible to attend all required training and communicate their training needs, deficiencies in training programs, and hazards associated with their training.

## 11.1 Safety Training Metrics

Upon implementation of an agency-wide learning management system, the following metrics will be used to track safety training:

* Numbers trained by division
* Numbers trained by method of delivery
* Total number of safety training hours delivered on a monthly basis
* % of employees training completed
* Metric to reflect satisfaction with trainings

The management of safety is the highest priority of KCM. KCM is committed to safety throughout the entire agency, from the County Council to the KCM frontline employees. KCM will ensure that all transit service delivery activities take place under a balanced allocation of organizational resources, to achieve the highest level of safety performance and meet established standards. KCM is committed to developing, implementing, maintaining, and constantly improving its processes.

1. Major Mechanical System Failures: Major mechanical system failures prevent a vehicle from completing or starting a scheduled revenue trip because actual movement is limited or because of safety concerns. Examples of major bus failures include breakdowns of brakes, doors, engine cooling systems, steering, axles, and suspension. [↑](#footnote-ref-2)