23MAR17 AM 10:29 CITY CLERK DEPARTMENT OF TRANSPORTATION SERVICES CITY AND COUNTY OF HONOLULU

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RICK BLANGIARDI MAYOR



J. ROGER MORTON DIRECTOR

JON Y. NOUCHI DEPUTY DIRECTOR

March 8, 2023

The Honorable Tommy Waters Chair and Presiding Officer and Members Honolulu City Council 530 South King Street, Room 202 Honolulu, Hawaii 96813

Dear Chair Waters and Councilmembers:

SUBJECT: Draft Resolution to the City Council for Approval of the Agency Rail Safety Plan for Rail Operations

The Department of Transportation Services (DTS) submits for your review and appropriate action a draft resolution requesting the Council's approval of the DTS Agency Rail Safety Plan (ARSP) for rail operations. The Federal Transit Administration (FTA) requires DTS to prepare this plan and requests approval by the City's governing entity, the City Council.

By Resolution 20-199, FD1, adopted on September 2, 2020, the Council had approved the DTS Transit Agency Rail Safety Plan ("TARSP") for rail operations. The proposed ARSP is a revision and update of the 2020 TARSP and supersedes and replaces the TARSP in its entirety.

The ARSP was prepared in accordance with the federal requirements and guidelines of 49 CFR Part 673 Public Transportation Agency Safety Plan, 49 CFR Part 674 State Safety Oversight Program, and the Hawaii State Department of Transportation Program Standard and Procedures. Parts 673 and 674 require public transportation agencies, which receive federal financial assistance under 49 USC Chapter 53 to develop, implement, and maintain an ARSP based on the principles of Safety Management System (SMS). SMS ensures each public transportation agency, regardless of its size or service environment, has the necessary organizational structures, accountabilities, policies, and procedures in place to direct and control resources for safety management.

DEPT. COM. 203

The Honorable Tommy Waters Chair and Presiding Officer and Members March 8, 2023 Page 2

Should you have questions, please contact me at 768-8303.

Very truly yours,

alue te

J. Roger Morton Director

Attachment

APPROVED:

11

Michael D. Formby Managing Director

No.



CITY COUNCIL CITY AND COUNTY OF HONOLULU HONOLULU, HAWAII

RESOLUTION

APPROVING THE DEPARTMENT OF TRANSPORTATION SERVICES' AGENCY RAIL SAFETY PLAN FOR RAIL OPERATIONS REQUIRED BY 49 CFR PART 673, 49 CFR PART 674, AND HAWAII STATE DEPARTMENT OF TRANSPORTATION PROGRAM STANDARDS AND PROCEDURES.

WHEREAS, 49 Code of Federal Regulations ("CFR") Part 673, Public Transportation Agency Safety Plans, and 49 CFR Part 674, State Safety Oversight, (collectively, "Parts 673 and 674") require public transportation agencies, which receive federal financial assistance under 49 U.S. Code Chapter 53 to develop, implement, and maintain a Public Transportation Agency Safety Plan ("PTASP"); and

WHEREAS, the Department of Transportation Services ("DTS"), as a recipient of Federal Transit Administration ("FTA") financial assistance for the public transit system of the City and County of Honolulu ("City"), must prepare and submit to the FTA a PTASP for rail operations, which is compliant with Parts 673 and 674, and prepare and submit to the Hawaii State Department of Transportation ("HDOT") a PTASP compliant with the HDOT Program Standards and Procedures; and

WHEREAS, by Resolution 20-199, FD1, adopted on September 2, 2020, the Council approved the DTS Transit Agency Rail Safety Plan ("TARSP") for rail operations in compliance with the requirements set forth in Parts 673 and 674 and the HDOT Program Standards and Procedures; and

WHEREAS, DTS has prepared an Agency Rail Safety Plan ("ARSP") that revises and updates the 2020 TARSP and supersedes and replaces the TARSP in its entirety; and

WHEREAS, DTS prepared the ARSP in compliance with the requirements set forth in Parts 673 and 674; and the HDOT Program Standards and Procedures; and

WHEREAS, the ARSP must be approved by the City Council ("Council"), which is the governing entity of the City, prior to submission to the FTA; now, therefore,

BE IT RESOLVED by the Council of the City and County of Honolulu the Agency Rail Safety Plan for rail operations is hereby approved in substantially the form attached hereto as Exhibit A; and

BE IT FURTHER RESOLVED the Director of Transportation Services may execute any incidental or related amendments, agreements, or documents in furtherance of the Agency Rail Safety Plan; and

DTSARSP.R23.1

1

D-203(23)



No. _____

RESOLUTION

BE IT FINALLY RESOLVED that a copy of this resolution be transmitted to the Director of Transportation Services.

INTRODUCED BY:

DATE OF INTRODUCTION:

Honolulu, Hawaii

Councilmembers

DTSARSP.R23.1

Exhibit A



DEPARTMENT OF TRANSPORTATION SERVICES

AGENCY RAIL SAFETY PLAN



DOCUMENT ISSUE TABLE				
POSITION	SIGNATURE	DATE		
Verifier (Manager of Safety Systems)	moun	12/30/2022		
Approver (Director of Rapid Transit)	Calon	12/30/2022		
Authorizer (Director of Transportation Services, Accountable Executive)	A. Junitor	12/30/2022		

CHANGE HIS	STORY			
REVISION	DATE	SECTION(S)	DESCRIPTION	REVIEWER
4.0	05/19/2020	All	Initial Release	Director, Director of Rapid Transit, Chief Safety & Security Officer

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	1 of 100



CHANGE HIS	STORY			
REVISION	DATE	SECTION(S)	DESCRIPTION	REVIEWER
01.00	12/30/2022	All	Bipartisan Infrastructure Law requires that transit agencies that receive Section 5307 funding and serve a large urbanized area (population of 200,000 or more) establish a Safety Committee and that the Safety Committee approve the agency's ASP and any updates to the ASP. As stated in FTA's February 2022 Dear Colleague Letter	Director, Director of Rapid Transit, Chief Safety & Security Officer

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	2 of 100



Table of Contents

	1	Introd	uction	***********	7		
1.1	Purpo	se			7		
1.2	Scope				7		
1.3	Acron	iyms and	Abbreviations		8		
1.4		-					
1.5	Descr	iption of	f Changes from the Previous Revision		20		
	2.0	Autho	rity		21		
	3.0	Safety	Management System		23		
3.1	ARSP	ARSP Control and Update Procedures					
	4.0	Projec	t System Description		26		
	5.0		of Transit Services				
	6.0	Physic	al Plant		27		
6.1	Struct	ture			27		
6.2							
6.3			hicles				
6.4	Rail O	peratio	ns Center (ROC)		32		
6.5	Opera		nd Maintenance				
	7		ONENT I - SAFETY MANAGEMENT POLICY				
7.1							
7.2			olicies				
7.3			ls and Objectives				
7.4	Mana		Structure and Organization				
	8		ONENT 2 – SAFETY RISK MANAGEMENT				
8.1							
8.2			gement Process – Activities and Methodologies				
8.3			Defining the System				
8.4 8.5			fication and Investigation: Methods for Identifying and Evalua d Analysis: Methods for Evaluating Safety Risks				
8.6			ol and Elimination: Strategy to Resolve / Minimize Exposure o				
0.0			to Hazard / Unsafe Conditions				
8.7			ng: Methods for Tracking and Reporting Safety Risks				
8.8			'Unacceptable" Hazards				
8.9	Invest	tigations	of Hazards		60		
8.10		-	al Review of Hazard Management Plan				
8.11			tion Plans and Compliance Requirements				
	Doc	ument	RSP-00001	Revision	Page		
	File	Name	RSP-00001 01.00 Agency Rail Safety Plan	0	3 of 100		



8.12	Committees	61
8.13	Coordinating with SSOA	
8.14	System Modifications	
8.15	Drug and Alcohol	
	9.0 COMPONENT 3 – SAFETY ASSURANCE	
9.1	Safety Data Acquisition, Collection and Analysis	66
9.2	Rules Compliance	67
9.3	Management of Change	67
9.4	Continuous Improvements	
9.5	Compliance Techniques	
9.6	Documentation	
9.7	Safety-Related Facility and Equipment Inspections and Audits	
9.8	DTS Emergency Management Program	70
9.9	Procurement	
9.10	Accident/Incident Reporting	
9.11	Training	
9.12	Safety Performance Targets	80
9.13	Internal Safety Reviews	81
	10.0 COMPONENT 4 – SAFETY PROMOTION	
10.1	Training and Qualification	85
10.2	Hazardous Materials Program	87
10.3	Safety Communications	88
10.4	CAP Procedures	
10.6	CAP Monitoring and Tracking	95

Docu	iment	RSP-00001	Revision	Page
File N	Name	RSP-00001 01.00 Agency Rail Safety Plan	0	4 of 100



LIST OF FIGURES

<u>Page</u>

Figure 1. DTS Organizational Chart 22	2
Figure 2. SMS Principles 23	3
Figure 3.1 Route Map 28	3
Figure 3.2 4-Car consist	1
Figure 3.3 Rail Operations Center (Maintenance and Storage Facility)33	
Figure 4. DTS Contractor Oversight Structure 44	4
Figure 5. System Safety Document Hierarchy 4!	5
Figure 6. Hazard Identification and Resolution Process52	2
Figure 7. Safety Risk Severity Categories54	4
Figure 8. Safety Risk Probability Levels 5!	5
Figure 9. Safety Risk Index 50	5
Figure 10. Safety Risk Acceptance Criteria 5	7

LIST OF TABLES

Table 1. Schedule for Annual Review of Safety Plan	24
Table 2. Honolulu Rail Transit Stations and Station Features	29
Table 3. 4-Car Vehicle Parameters	31
Table 4. Annual Safety and Security Performance Targets	80
Table 5. Summary of DTS Internal Audits	81
Table 6. CAP Tracking Log	97

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	5 of 100



POLICY STATEMENT

The City and County of Honolulu (City) has identified the Department of Transportation Services (DTS) as the department responsible for overseeing the operations and maintenance of the Honolulu Rail Transit system and is committed to providing safe, reliable, efficient, and resilient rail transportation services. This Agency Rail Safety Plan (ARSP) serves as a guiding document describing the various safety-related roles and responsibilities, system safety activities, the processes for identifying and managing potential system hazards, and a means for managing system safety for the operating rail system. Paramount of these activities is the establishment of a Safety Management System (SMS) program, which, serves as the guiding principles for all activities conducted by DTS and its contractors. Specifically, DTS and its contractors shall:

- Develop a positive safety culture through the implementation of a comprehensive SMS
- Manage the risks associated with the operation of the system to prevent accidents and incidents
- Provide safety information and training to ensure employees understand their role in system safety
- Ensure facilities and equipment are safe for passenger service
- Establish relationships with external stakeholders, including emergency responders
- Strive for continuous improvement in the management of safety

The Director is the Accountable Executive and he along with the Director of Rapid Transit have empowered the Chief Safety & Security Officer to develop, distribute, and administer a comprehensive, integrated, and coordinated ARSP. All DTS employees and contractors shall be governed by the requirements and terms of the ARSP. The Core System Contractor (CSC) is responsible for implementing the safety programs discussed in this Plan including establishing a hazard management program, providing SMS training, and promoting system safety throughout the organization. All employees shall take an active role in identifying and reporting hazardous conditions and, become qualified to respond to abnormal and emergency situations, which apply to their assignments. LOMC-CSC managers and supervisors must guide the process of identifying, assessing and resolving hazards and threats and are expected to cooperate fully with the DTS CSSO in this endeavor.

The City requires all DTS employees and its contractors to adhere to the Safety Management Policy, Safety Performance Targets, ARSP, and related plans, procedures, and work instructions in place to implement the ARSP.

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	6 of 100



1 Introduction

1.1 Purpose

The purpose of the Agency Rail Safety Plan (ARSP) is to set forth the requirements for identifying, evaluating and minimizing safety risk throughout the City and County of Honolulu's (CCH) public transit system (Honolulu Rail Transit Project). The ARSP's design and implementation includes the development of a comprehensive Safety Management System (SMS) as described in the Federal Transit Administration's (FTA) requirements (49 CFR Parts 670, 672, 673, and 674) and follows the Hawaii Department of Transportation (HDOT) Rail Transit Safety Oversight Program Standard & Procedures, rev 6. The Plan incorporates the four components of SMS: Safety Management Policy, Safety Risk Management, Safety Assurance, and Safety Policy. The FTA, other federal agencies and the HDOT SSOA will have access to review all RTA SMS documentation upon request. Specifically, the HDOT SSOA has authority to inspect all facilities with or without advance notice.

The ARSP is specifically developed to

- Establish the Safety Program for CCH.
- Identify the relationships and responsibilities of CCH with other agencies and organizations, which impact transit system safety.
- Provide formal documentation of CCH management's commitment to safety.
- Provide a framework for implementing the CCH Safety Management Policy and related policies and procedures.
- Achieve CCH's system safety goals and objectives in compliance with the National Public Transportation Safety Plan (NSP).
- Satisfy federal, state, and local laws, codes, ordinances, and regulations.

1.2 Scope

This Agency Rail Safety Plan (ARSP) describes the responsibilities and activities, which must be implemented and maintained to achieve the highest degree of safety in the operation of Honolulu Rail Transit System and services provided by the City and County of Honolulu's Department of Transportation Services (DTS). The Plan identifies safety activities intended to improve the coordination, cooperation, and communication of safety related functions within the organization structure. This document is focused towards maximizing the safety of our customers, employees and all who are affected by the rail system services. The ARSP identifies the safety organization and activities carried out to implement a comprehensive Safety

Documen	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	7 of 100



Management System (SMS). These activities are implemented throughout the entire life cycle of equipment and buildings from conception through retirement.

The ARSP design and implementation includes the development of a comprehensive SMS as described in the Federal Transit Administration's (FTA) requirements (49 CFR Parts 670, 672, 673, and 674) and follows the Hawaii Department of Transportation's Rail Transit Safety Oversight Program Standards & Procedures, Revision 6, February 2022.

1.2.1 Contract Document Reference

Document Code	Document Title
N/A	N/A
N/A	N/A

1.2.2 Reference Documents

Document Code	Document Title
FTA	49 CFR 670, 672, 673, and 674.
HDOT	Program Standards & Procedures dated February 03, 2023.
FTA	FTA Dear Colleague Letter February 17, 2022

1.3 Acronyms and Abbreviations

- ARSP Agency Rail Safety Plan
- ATC Automatic Train Control
- CAP Corrective Action Plan
- CCC Change Control Committee
- CFR Code of Federal Regulations
- CSC Core Systems Contractor

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	8 of 100



File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	9 of 100		
Document	RSP-00001	Revision	Page		
NTSB	National Transportation Safety Board	r			
NTD	National Transit Database				
MOW	Maintenance of Way				
MOU	Memorandum of Understanding				
MMIS	Maintenance Management Information System				
LOMC-VTS	Lead Operations and Maintenance Contractor - Vertical Tran	nsportation S	Services		
LOMC-RSS	Lead Operations and Maintenance Contractor -Revenue Sys	tem Services	i		
LOMC-RIS	Lead Operations and Maintenance Contractor -Revenue Sys Services	tems Integra	tion		
LOMC-PCS	Lead Operations and Maintenance ContractorPest Control Services				
LOMC-L2S	Lead Operations and Maintenance ContractorLevel 2 Security Services				
LOMC-GEN	Lead Operations and Maintenance Contractor—Backup Generator Maintenance/Inspection Services				
LOMC-CSC	Lead Operations and Maintenance Contractor-Core System Contractor				
LOMC-BIS	Lead Operations and Maintenance Contractor—Bridge Inspection Services				
LOMC	Lead Operations and Maintenance Contractor				
HSQE	Health, Safety, Quality, and Environmental				
HRTP	Honolulu Rail Transit Project				
HIOSH	State of Hawaii Occupational Safety and Health				
HART	Honolulu Authority for Rapid Transportation				
HA	Hazard Analyses				
FTA	Federal Transit Administration				
FMECA	Failure Modes, Effects, and Criticality Analysis				
ESSC	Emergency & Security Systems Committee				
EMP	Emergency Management Plan				
DTS	City and County of Honolulu Department of Transportation Services				
DHR	City and County of Honolulu Department of Human Resources				
CSSO	Chief Safety and Security Officer				



File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	10 of 100
Document	RSP-00001	Revision	Page
VRM	Vehicle Revenue Miles		
TVA	Threat and Vulnerability Assessment		
TES	Traction Electrification System		
TAMS	Transit Asset Management System		
SSPSP	Safety and Security Program Standard Plan (of SSOA)		
SSP	System Security Plan		
SSOA	State Safety Oversight Agency		
SSO	State Safety Oversight	1.23	
SSMP	Safety and Security Management Plan		
SSHA	Subsystem Hazard Analysis		
SSCVR	Safety and Security Certification Verification Report		
SSCP	Safety and Security Certification Plan		
SMS	Safety Management System		
SHA	System Hazard Analysis		
SCVR	Safety Certification Verification Report		
SCADA	Supervisory Control and Data Acquisition		
S&S	Safety and Security		
SSIAIC	Safety Systems and Incident & Accident Investigation Commi	ittee	
ROC RTA	Rail Operations Center Rail Transit Authority		
RAM	Reliability - Availability - Maintainability		
QA	Quality Assurance		
PV	Passenger Vehicle		
РНА	Preliminary Hazard Analysis		
OHA	Operation Hazard Analysis		
OCC	Operations Control Center		



1.4 Terms

Accident means Event that involves any of the following: a loss of life; a report of a serious injury to a person; a collision involving a rail transit vehicle; a runaway train; an evacuation for life safety reasons; or any derailment of a rail transit vehicle at any location, at any time, whatever the cause.

Accident/Incident/Hazard Investigation Plan (AIP) means a plan or set of procedures for conducting investigations at a rail transit property. The RTA must develop and implement an SSOA-approved AIP.

Accountable Executive means a single, identifiable person who has ultimate responsibility for carrying out the Public Transportation Agency Safety Plan of a public transportation agency; responsibility for carrying out the agency's Transit Asset Management Plan; and control or direction over the human and capital resources needed to develop and maintain both the agency's Public Transportation Agency Safety Plan, in accordance with 49 U.S.C. 5329(d), and the agency's Transit Asset Management Plan in accordance with 49 U.S.C. 5326.

Administrator means the Federal Transit Administrator or the Administrator's designee.

CFR means Code of Federal Regulations.

Chief Safety Officer (CSO) means an adequately trained individual who has responsibility for safety and reports directly to a transit agency's chief executive officer, general manager, president, or equivalent officer (i.e., Accountable Executive). A Chief Safety Officer may not serve in other operational or maintenance capacities.

Chief Safety and Security Officer (CSSO) means an adequately trained individual who has responsibility for safety and Security and reports directly to a transit agency's chief executive officer, general manager, president, or equivalent officer (i.e., Accountable Executive). A Chief Safety and Security Officer may not serve in other operational or maintenance capacities.

Contractor means an entity that performs tasks required on behalf of the oversight or rail transit agency. The rail transit agency may not be a contractor for the oversight agency.

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	11 of 100



Corrective Action Plan (CAP) means a plan developed by the rail transit agency that describes the actions the rail transit agency will take to minimize, control, correct, or eliminate risks and hazards, and the schedule for implementing those actions. These plans also refer to actions taken to address deficiencies identified through internal and external audit findings or to prevent reoccurrence of the causal factors identified from accident/incident investigations. The SSOA or the FTA may require the RTA to develop and carry out a corrective action plan.

CSSP means Construction Safety and Security Plan.

Designated Personnel means: (1) Employees and contractors identified by a recipient whose job function is directly responsible for safety oversight of the public transportation system of the public transportation agency; or (2) Employees and contractors of a State Safety Oversight Agency whose job function requires them to conduct safety audits and examinations of the rail fixed guideway public transportation systems subject to the jurisdiction of the agency.

Derailment means a non-collision event which one or more wheels of a rail transit vehicle unintentionally leaves the rails.

Directive means a written communication from SSOA to a rail fixed guideway public transportation system that requires the rail fixed guideway public transportation system to take one or more specific actions to ensure the safety of the general public and/or employees on and around the transit system.

DTS means the City and County of Honolulu Department of Transportation Services.

Eligible State means a State that has a rail fixed guideway public transportation system within the jurisdiction of the State that is not subject to regulation by the FRA; or a rail fixed guideway public transportation system in the engineering or construction phase of development within the jurisdiction of the State that will not be subject to regulation by the FRA.

Equivalent Authority means an entity that carries out duties similar to that of a Board of Directors, for a recipient or sub recipient of FTA funds under 49 U.S.C. Chapter 53, including sufficient authority to review and approve a recipient or sub recipient's Public Transportation Agency Safety Plan.

	Document	RSP-00001	Revision	Page
8	File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	12 of 100



Evacuation means a condition that occurs when persons depart from rail transit vehicles or facilities for life safety reasons, including self-evacuation. **Event** means an Accident, Incident, or Occurrence.

Face up means when two trains are moving toward each other on the same track due to system or operator error and have the potential to collide. FTA means the Federal Transit Administration, an agency within the U.S. Department of Transportation.

Grade Crossing (as defined in the National Transit Database glossary) means an intersection of roadways, railroad tracks, or dedicated transit rail tracks that run across mixed traffic situations with motor vehicles, light rail, commuter rail, heavy rail, or pedestrian traffic; either in mixed traffic or semi-exclusive situations.

HART means Honolulu Authority for Rapid Transportation.

Hazard means any real or potential condition (as defined in the rail transit agency's hazard management process and this PSP) that can cause injury, illness, or death; damage to or loss of a system, equipment, or property; or damage to the environment.

HDOT means the Hawaii Department of Transportation.

HMP means Hazard Management Plan.

HRTP means the Honolulu Rail Transit Project.

IAP means Internal Audit Program.

Incident means an Event that involves any of the following: A personal injury that is not a serious injury; one or more injuries requiring medical transport; or damage to facilities, equipment, rolling stock, or infrastructure that disrupts the operations of a rail transit agency. An incident must be reported to the FTA's National Transit Database (NTD) in accordance with the thresholds for reporting set forth in Section 4 of this PSP.

Individual means a passenger; employee; contractor; rail transit facility worker; pedestrian; trespasser; or any person on rail transit-controlled property.

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	13 of 100



Initial Submission means any standard, plan, procedure, or other SSOA-related document to be submitted by the RTA to the SSOA for review and approval that has not been previously reviewed and approved in accordance with the requirements of this PSP or federal regulation regarding the Safety of a rail fixed guideway public transportation system.

Investigation means the process used to determine the causal and contributing factors of an accident, incident, or real or potential hazard, so that actions can be identified to mitigate risk and prevent a potential safety event or recurrence thereof.

Life Safety Reason means a situation such as a fire; the presence of smoke or noxious fumes; a fuel leak; a vehicle fuel leak; an electrical hazard; a bomb threat; or a suspicious item or other hazard that constitutes a real or potential danger to any person.

Major Capital Project means a project that involves the construction of a new fixed guideway or an extension to an existing guideway; involves the rehabilitation of an existing fixed guideway with a total project cost in excess of \$100 million; or is determined by the FTA to be a major capital project.

National Public Transportation Safety Plan means the plan to improve the safety of all public transportation systems that receive federal financial assistance under 49 U.S.C. Chapter 53.

Near Miss means an unplanned event that has the potential to cause, but does not actually result, in human injury, environmental or equipment damage, or an interruption to normal operation.

New Start Project means any rail fixed guideway system funded under the FTA's 49 U.S.C. 5309 discretionary construction program.

NTD means the National Transit Database.

NTSB means the National Transportation Safety Board.

Occurrence means an Event without any personal injury in which any damage to

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	14 of 100



facilities, equipment, rolling stock, or infrastructure does not disrupt the operations of the rail transit agency.

Oversight Agency means the entity, other than the rail transit agency, designated by the state or several states to implement 49 CFR Part 674.

Passenger means a person who is on board, boarding, or alighting from a rail transit vehicle for the purpose of travel.

Person means a passenger, employee, contractor, pedestrian, trespasser, or any individual on the property of a rail fixed guideway public transportation system.

Plan means a document developed and adopted by the rail transit agency describing its policies, objectives, responsibilities, and procedures for a given program, policy, or strategy.

Preliminary Hazard Analysis (PHA) means a transit agency analysis typically drafted prior to and updated during the engineering phase of a capital project, enabling development of design criteria that assure safety and security are built into the project prior to construction.

Pre-Revenue Service Review (PRSR) means the review conducted by the SSOA of a rail transit agency new start, system extension, or other major capital project to verify that the safety and security certification process was implemented according to the RTA's plans; that all necessary procedures are in place; and that hazards are mitigated to an acceptable risk level.

Procedure means a set of fixed, written instructions or steps developed and adopted by the rail transit agency for carrying out a given plan or operation in a given situation.

Program Standards and Procedures (PSP) means a written document developed and adopted by the oversight agency that describes the policies, objectives, responsibilities, and procedures used to provide rail transit agency safety and security oversight.

Public Transportation Agency Safety Plan (PTASP) means the comprehensive agency safety plan for a transit agency that is required by 49 U.S.C. 5329(d) and

5	Document	RSP-00001	Revision	Page
	File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	15 of 100



based on a Safety Management System. Refer to **Section 3.1** for additional information on SSOA requirements and timelines for initial submittal of a 673-Compliant PTASP by covered RTAs.

Public Transportation Safety Certification Training Program (PTSCTP) means either the certification training program for federal and state employees, or other designated personnel, who conduct safety audits and examinations of public transportation systems, and employees of public transportation agencies directly responsible for safety oversight, established in accordance with 49 U.S.C. 5329(c)(2), or the program authorized by 49 U.S.C. 5329(c)(1).

Rail Fixed Guideway Public Transportation System means any fixed guideway system that uses rail, is operated for public transportation, is within the jurisdiction of a state, and is not subject to the jurisdiction of the FRA, or any such system in engineering or construction. Rail Fixed Guideway Public Transportation Systems include but are not limited to rapid rail, heavy rail, light rail, monorail, trolley, incline plane, funicular, and automated guideway.

Rail Transit Agency (RTA) means any entity that provides service on a rail fixed guideway public transportation system. The City and County of Honolulu's Department of Transportation Services (DTS), which will assume operations and maintenance responsibilities for the HRTP upon the entry of the system into revenue service, serves as the RTA for the HRTP. Certain responsibilities assigned to the RTA within this PSP will be assumed by the Honolulu Authority for Rapid Transportation (HART), the agency responsible for delivering the HRTP and for certifying the system as safe and secure to initiate passenger service. The division of responsibility between HART and DTS over program requirements assigned to the RTA within this PSP is identified in the HART-DTS Memorandum of Understanding (Appendix O) and in other program documentation maintained by HART and DTS.

Rail Transit-Controlled Property means property that is used by the rail transit agency and may be owned, leased, or maintained by the rail transit agency.

Rail Transit Vehicle means the rail transit agency's rolling stock, including but not limited to passenger and maintenance vehicles.

Revenue Service means the period of time when any aspect of the rail transit

Document	RSP-00001	Revision	Page	
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	16 of 100	



agency operations is initiated with the intent to carry passengers.

Risk means the composite of predicated severity and likelihood of the potential effect of a hazard.

Risk Mitigation means a method or methods to eliminate or reduce the effects of real or potential hazards.

Runaway Train means a train that is no longer under the control of a driver regardless of whether an operator is physically on the rail transit vehicle at the time.

Safety means freedom from harm resulting from unintentional acts or circumstances.

Safety Assurance means processes within a transit agency's Safety Management Systems that function to ensure the implementation and effectiveness of safety risk mitigation and to ensure that the transit agency meets or exceeds its safety objectives through the collection, analysis, and assessment of information.

Safety Management System (SMS) means the formal, top-down, organizationwide approach to managing safety risk and assuring the effectiveness of a transit agency's safety risk mitigation. SMS includes systematic procedures, practices, and policies for managing risks and hazards.

SMS Executive means a Chief Safety Officer or an equivalent.

Safety Performance Improvement means the cyclical relationship in which safety risk management identifies, assesses, and mitigates hazards, their safety risks, and potential consequences, and monitors mitigations for effectiveness through a documented Safety Performance Monitoring and Measurements program.

Safety Performance Target means a Performance Target related to safety management activities.

Safety Promotion means a combination of training and communication of safety information to support SMS as applied to the transit agency's public transportation system.

Safety Risk Assessment means the formal activity whereby a transit agency determines Safety Risk Management priorities by establishing the significance or

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	17 of 100



value of its safety risks.

Safety and Security Certification means the process applied to project development to ensure that all practical steps have been taken to optimize the operational safety and security of the project during engineering, design, construction, and testing phases before the start of passenger operation.

Safety Event means an Accident, Incident, or Occurrence.

Safety Risk Management means a process within an RTA's Safety Plan for identifying real or potential hazards and analyzing, assessing, and mitigating safety risk.

Security means freedom from harm resulting from intentional acts or circumstances.

System Security Plan (SSP)/Security and Emergency Preparedness Plan (SEPP) means a document developed and adopted by the rail transit agency describing the application of operating, technical, and management techniques and principles to the security aspects of the system throughout its life to reduce threats and vulnerabilities and describing the emergency preparedness policies and procedures for mobilizing the system and other public safety resources to assure rapid, controlled, and predictable responses to various types of transportation and community emergencies.

Sensitive Security Information (SSI), as defined in 49 CFR Section 1520.5, means information obtained or developed in the conduct of security activities, including research and development, the disclosure of which would

(1) constitute an unwarranted invasion of privacy (including information contained in any personnel, medical, or similar file); (2) reveal trade secrets or privileged or confidential information obtained from any person; or (3) be detrimental to the security of transportation.

Serious Injury means any injury which:

- 1. Requires hospitalization for more than 48 hours, commencing within seven days from the date the injury was received;
- 2. Results in a fracture of any bone (except small fractures of fingers, toes, or nose);
- 3. Causes severe hemorrhages or nerve, muscle, or tendon damage;

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	18 of 100



- 4. Involves any internal organ; or
- 5. Involves second or third-degree burns, or any burns affecting more than five percent of the body surface.

SSCP means Safety and Security Certification Plan.

SSCVR means Safety and Security Certification Verification Report.

SSMP means Safety and Security Management Plan.

State means a state of the United States, the District of Columbia, Puerto Rico, the Northern Mariana Islands, Guam, American Samoa, and the Virgin Islands. Within this document, State may also be used specifically to indicate the State of Hawaii.

Substantial Damage means any physical damage to transit or non-transit property including vehicles, facilities, equipment, rolling stock, or infrastructure. Substantial Damage INCLUDES damage which adversely affects the structural strength, performance, or operating characteristics of the vehicle, facility, equipment, rolling stock, or infrastructure requiring towing, rescue, onsite maintenance, or immediate removal prior to safe operation. Substantial Damage EXCLUDES damage such as cracked windows, dented, bent, or small punctured holes in the body, broken lights, mirrors, or removal from service for minor repair or maintenance, testing, or video and event recorder download.

Technical Training Plan (TTP) means a plan developed by an SSOA for designated personnel and contractor support personnel who perform safety audits and examinations. At a minimum, the technical training plan will describe the process for receiving technical training in the competency areas in 49 CFR Part 672.31(A)(2)(b) appropriate to the specific rail fixed guideway public transportation system(s) for which safety audits and examinations are conducted.

Threat means any real or potential condition that can cause injury or death to passengers or employees, or damage to or loss of transit equipment, property, and/or facilities.

Threat and Vulnerability Assessment (TVA) means the process by which a rail transit agency systematically evaluates the security vulnerabilities and hazards of its system, including a method for prioritizing hazards and gauging likelihood and

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	19 of 100



severity.

Vulnerability means a characteristic of passengers, employees, vehicles, and/or facilities that increases the probability of a security breach.

U.S.C. means United States Code.

1.5 Description of Changes from the Previous Revision

The Bipartisan Infrastructure Law requires that transit agencies that receive Section 5307 funding and serve a large urbanized area (population of 200,000 or more) establish a Safety Committee and that the Safety Committee approve the agency's ASP and any updates to the ASP. As stated in FTA's February 2022 Dear Colleague Letter, if a transit agency is not yet compliant with the new PTASP requirements, the Federal Transit Administration (FTA) expects the transit agency to establish a Safety Committee by **July 31, 2022** and the Safety Committee to approve an update to the agency's ASP, incorporating applicable PTASP requirements in Section 5329(d), by **December 31, 2022**.

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	20 of 100



2.0 Authority

The responsibilities for the planning, design, development, construction, operations and maintenance is divided between two entities of the City and County of Honolulu: DTS and the Honolulu Authority for Rapid Transportation (HART).

- Legal Under Article XVII of the Revised Charter for the City and County of Honolulu, HART is responsible for the planning, design, development, and construction of the HRTP. In 2016, the voters approved Charter Amendment 4 (certified November 29, 2016) which placed responsibility for the operations and maintenance of the rail system solely with DTS.
- 2. Authority The State of Hawaii Department of Transportation (SSOA) is designated as the State of Hawaii State Safety Oversight Agency (SSOA) pursuant to 49 United States Code (U.S.C.) Section 5329(e)(4) and any reauthorization of or amendment to those sections concerning its oversight of the safety of rail fixed guideway public transportation in the State of Hawaii. The requirements to establish the ARSP are contained within the Hawaii Department of Transportation Rail Program Standards and Procedures. The SSOA policy will foremost be achieved through implementation of a 49 Code of Federal Regulations (CFR) Part 674 compliant program with additional requirements unique to the complexity and nature of automated fixed guideway public transportation systems.
- 3. Per the requirements contained in 49 CFR 673.23, The City and County of Honolulu is required to establish its organizational accountabilities and responsibilities and have a written statement of Safety Management Policy, which includes the department's safety objectives and key executive staff:
 - City Council
 - Director, Accountable Executive
 - Director of Rapid Transit
 - Chief Safety & Security Officer

The approved organizational structure for rail operations and organizational accountabilities is found in Figure 1. The Chief Safety and Security Officer (CSSO) is a primary direct report of the Director of Rapid Transit and a secondary direct report of the Director, Accountable Executive.

The DTS structure demonstrates the Safety Accountable Executive is present within the civilservice ranks to carry out the ARSP, including SMS, the Transit Asset Management Plan, and the Transit Asset Management System (TAMS). SMS is a comprehensive, collaborative approach to managing safety. SMS brings management and staff together to better control risk, identify and correct safety problems earlier, share and analyze safety data more effectively, and

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	21 of 100



measure safety performance more precisely. The TAMS is a strategic and systematic process of operating, maintaining, and improving public transportation capital assets effectively throughout the life cycle of such assets.

4. On April 12, 2019, a Memorandum of Understanding (MOU) was signed between DTS and HART to establish the responsibilities for safety. This MOU forms the basis of this Plan and the division of responsibilities described in this ARSP.

For the purposes of this document, the terms "oversee" and "oversight" are defined as the direct observation, monitoring, inspection and/or auditing of activities and tasks performed by a LOMC, or a Lead Contractor, subject to the terms of the relevant contract. A LOMC is defined as any Contractor, Core Systems Contractor (CSC) with respect to O&M, or any other Contractor that the City Parties has or will enter into any contractual relationship to lead in the performance of any material part of the O&M work.

For ease of reference, the City's and DTS's rights and role under this plan are intended to be constructed to conform to the contractual requirements and limitations in any current or future contract between the City and a Lead Contractor.

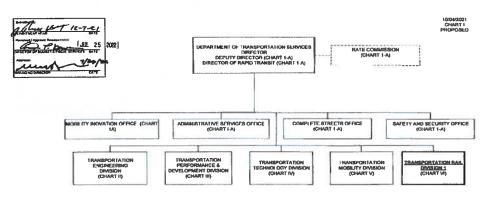


Figure 1. DTS Organizational Chart

1 The Transportation Rad Division is proposed to be included in the Office of the Director Charl I

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	22 of 100



3.0 Safety Management System

On July 6, 2012, President Obama signed into law P.L. 112-141, the Moving Ahead for Progress in the 21st Century Act (MAP-21). MAP-21 created a streamlined, performance-based, and multimodal program to address the many challenges facing the U.S. transportation system including: improving safety and maintaining infrastructure conditions. Under MAP-21, the Federal Transit Administration (FTA) required changes to the current regulations for State Safety Oversight (SSO) including the updates to system safety program plans to incorporate an SMS approach. The SMS approach requires a formal, top-down, organization-wide approach to managing safety risk and ensures the effectiveness of a transit agency's safety risk mitigation, as defined under 49 CFR 673.5. SMS includes systematic procedures, practices, and policies for managing risks and hazards, including developing:

- An accountable safety organization
- Strong safety culture
- Proactive hazard analysis
- Performance measures and leading indicators
- Formal data collection
- Voluntary reporting
- Continuous learning and communications



SMS is a management approach, which ensures each public transportation agency, regardless of its size or service environment, has the necessary organizational structures, accountabilities, policies, and procedures in place to direct and control resources for safety management. SMS builds on the public transportation industry's existing safety foundation to mitigate safety risk better, detect and correct safety problems earlier, share and analyze safety data more effectively, and measure safety performance more accurately. DTS has adopted and is committed to implementing SMS principles.

The ARSP is compliant with FTA regulations (49 CFR Parts 670, 672, 673, and 674) and SSOA's State Safety Oversight Program Standard. DTS and its contractors are committed to implementing an SMS program. The ARSP is organized according to the four components of SMS, mainly:

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	23 of 100



- **Safety Management Policy** DTS' documented commitment to safety, which defines the safety objectives and the accountabilities and responsibilities of employees regarding safety.
- Safety Risk Management The processes for identifying hazards and analyzing, assessing, and mitigating safety risk, which is tracked until closure.
- Safety Assurance The processes, which function to ensure the implementation and effectiveness of safety risk mitigation, and to ensure DTS and its contractors meet or exceed its safety objectives through the collection, analysis, and assessment of information.
- **Safety Promotion** The combination of training and communication of safety information to support SMS as applied to DTS' rail system.

ARSP Control and Update Procedures 3.1

3.1.1 ARSP Updates

The DTS CSSO submits the revised ARSP to the Safety Systems and Incident & Accident Investigation Committee with front line employees, Director of Rapid Transit, and the Director, who review and approve the revised ARSP. After these approvals the DTS CSSO submits the revised ARSP and all referenced materials to SSOA for concurrence. Once the SSOA comments are addressed, the DTS Accountable Executive signs as the authorizer and presents the ARSP to the Honolulu City Council for adoption.

The detailed schedule for annual revision submittals by DTS is in Table 1 below.

Table 1. Schedule for Annual Review of Safety Plan					
Task	Responsible Agency	Duration	Target Date		
DTS Annual Review Completed by DTS CSSO / DTS Director of Rapid Transit/ DTS Director of Transportation (Accountable Executive) and the Safety Systems Incident & Accident Investigation Committee review and approval	DTS		Dec 1		
If ARSP is not updated:					
Notifies SSOA no update required	DTS		Jan 1		
If notified no update is required SSOA accepts or objects to DTS' determination and notifies DTS of their decision.	SSOA	30 days	Jan 31		

Table 1. Schedule fo	or Annual Review o	f Safety Plan
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Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	24 of 100



DTS	-	Jan 31
SSOA	30 days	Mar 2
DTS	30 days	Apr 1
SSOA	30 days	May 1
City and County of Honolulu	15 days	Sep 2
	SSOA DTS SSOA City and County	SSOA30 daysDTS30 daysSSOA30 daysCity and County15 days

3.1.2 Review of Annual Submission

In conjunction with the annual internal safety audits per the SSOA Standard, the DTS CSSO conduct an annual review of the ARSP. DTS submits the document, along with any changes, to the Safety Systems Incident & Accident Investigation Committee for review and approval. The meeting minutes of the Committee, which approved the ARSP are included in Appendix A. The Committee includes Front line employees. After the Committee review and approval, the ARSP is submitted to the SSOA by January 31st. As appropriate, referenced materials affected by the revision(s) must also be submitted with the ARSP.

To ensure consistency between the ARSP and supporting documents, DTS requires the LOMC-CSC to annually review and update its O&M Provider Safety Plan concurrently while the ARSP is in the review process. The LOMC-CSC O&M Provider Safety Plan is reviewed and accepted by the DTS CSSO, and then by the SSOA.

3.1.3 ARSP Change Management

The DTS CSSO is responsible for initiating changes to the ARSP when deemed necessary. The DTS CSSO is responsible for updating the document, and submitting the revised document to the DTS Director of Rapid Transit, Safety Systems and Incident & Accident Investigation Committee, and Director for review and approval.

If the DTS CSSO identifies a change to the ARSP as significant, DTS submits the revised ARSP to SSOA for review and approval within 30 calendar days of the effective date of the change, otherwise, minor changes to the document will be submitted with the annual submission.

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	25 of 100



4.0 Project System Description

The Honolulu Transit Rail System is 18.75 mile elevated rail line on a dedicated right of way with 19 stations. The Project is scheduled to open in 3 consecutive segments: West Project Segment begins at East Kapolei and terminates at Aloha Stadium, and includes the first nine stations; Airport Project Airport Project Segment, extends the rail line to Middle Street and adds 4 stations; City Center Project Segment terminates at Civic Center and adds 6 stations. When all three sections are completed, the system will connect West Oahu with downtown Honolulu and Civic Center via Honolulu International Airport.

The ARSP is currently only applicable to the initial operating West Project Segment: East Kapolei to Aloha Stadium. DTS will update the ARSP prior to the start of Revenue Service operations of each subsequent section.

5.0 Scope of Transit Services

The Passenger Service Date for the full-scope of the Project, as described in this document, is March 31, 2031. Hours of operation during the full Operations and Maintenance period will be from 4:00 a.m. until midnight on weekdays. The base hours are from 4:00 a.m. to 5:00 a.m., 9:00 a.m. to 3:00 p.m., and 7:00 p.m. to 9:00 p.m. on weekdays and 04:00 a.m. to 09:00 p.m. on weekends. The peak hours are from 5:00 a.m. to 9:00 a.m. and 3:00 p.m. to 7:00 p.m. on weekdays. The late hours are from 9:00 p.m. to 12:00 a.m. on weekdays and weekends. The service will operate every 10 minutes during the weekday base period, every six (6) minutes during the peak periods, and every 15 minutes during the late period. On weekends and holidays, the service will also run from 4:00 a.m. until midnight. However, the service will operate every 10 minutes during the weekend base period and every 15 minutes during the late period. Average weekday boardings are projected to be approximately 84,000 in 2031, the first year of full Operations and Maintenance.

There will be 2 earlier passenger service dates, prior to full operations. The first Operating Segment is expected to open in early 2023 from East Kapolei to Aloha Stadium. The base hours are from 5:00 a.m. to 7:00 p.m. on weekdays and 8:00 p.m. to 7:00 p.m. on weekends. Hours of operation for the first Operating Segment will be from 5:00 a.m. to 7:00 p.m. on weekends and holidays. The service will operate every 10 minutes during the weekdays. On weekends and holidays, the service will run from 8:00 a.m. to 7:00 p.m. and will operate every 10 minutes.

The second Operating Segment is expected to open in early 2025 from Aloha Stadium to the Middle Street Transit Center. The base hours are from 5:00 a.m. to 9:00 p.m. on

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	26 of 100



weekdays and 5:00 a.m. to 10:00 p.m. on weekends. The late hours are from 9:00 p.m. to 11:00 p.m. on weekdays and 10:00 p.m. to 12:00 a.m. on weekends. Hours of operation for the second Operating Period will be from 5:00 a.m. to 11:00 p.m. on weekdays. The service will operate every 10 minutes during weekday base and peak periods, and every 15 minutes during the late period. On weekends and holidays, the service will run from 5:00 a.m. to 12:00 a.m. to 12:00 a.m. The service will operate every 10 minutes during the weekend base period and every 15 minutes during the late period.

The third Operating Segment is expected to open in 2031 from Middle Street to the Civic Center. The base hours are from 5:00 a.m. to 9:00 p.m. on weekdays and 5:00 a.m. to 10:00 p.m. on weekends. The late hours are from 9:00 p.m. to 11:00 p.m. on weekdays and 10:00 p.m. to 12:00 a.m. on weekends. Hours of operation for the second Operating Period will be from 5:00 a.m. to 11:00 p.m. on weekdays. The service will operate every 10 minutes during weekday base and peak periods, and every 15 minutes during the late period. On weekends and holidays, the service will run from 5:00 a.m. to 12:00 a.m. The service will operate every 10 minutes during the late period.

6.0 Physical Plant

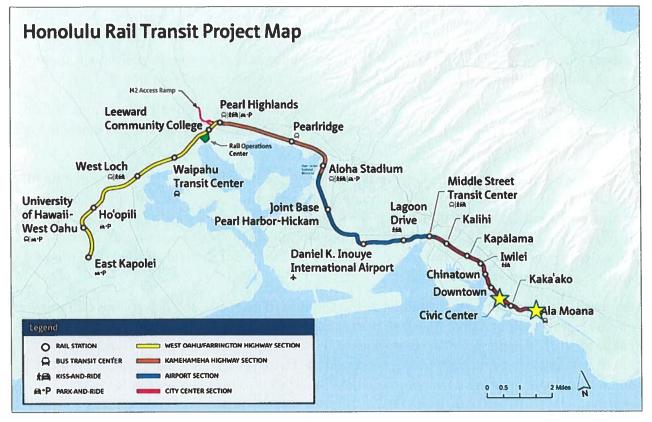
6.1 Structure

The rail system alignment operates on a dedicated right-of-way, fully grade-separated from roadway operation, with grade-level facilities at the operations yard and the Leeward Community College station, which are fully fenced. The entire operating system consists of 18.75 miles of double track, starting at East Kapolei and going to Civic Center, with an electrified third rail.

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	27 of 100



Figure 3.1 Route Map



There are twelve (12) crossovers at various locations along the entire guideway with a pocket track at the Aloha Stadium station to permit turn-backs, single tracking, or storage. Crossovers are spaced so continuous service can be maintained in each direction between most crossovers using only one track. Trains can be operated on either track under fully automatic train control. The entire system also includes 13 traction power substations and 2 gap breaker station

6.2 Stations

There are nineteen (19) stations in the entire system, with nine stations in the initial operating segment and four (4) additional stations with Airport Project Segment, and six (6) additional stations with Airport Project Segment. All stations were scaled to accommodate a 4-car consist with a total length of two-hundred and fifty-six (256) feet and include platform screen gates for safety and security. Passenger stations are constructed of simple three-level modular structures: a ground entrance with ticket vending equipment, AEDs at each entrance, entrance/fare gates, electric power equipment rooms and a train platform level for boarding.

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	28 of 100



All stations have elevators and all (with the exception of Leeward Community College) have escalators.

Stations will be staffed with Station Operators who provide assistance in system usage, fare policy and usage and directional information to customer as well as emergency service support. In addition, they monitor station facilities for station maintenance and customer safety.

The rail system has security cameras, emergency and information call points at stations and on board trains as well as security staffing. System security for the rail system is implemented through a three-level security approach.

Controllers are positioned at the Operations Control Center. Station Operators are positioned at each station. Train Operators are positioned on every other train. The staff are responsible for providing Level 1 Security throughout the system. Responsibilities include activities such as the prevention of access to non-public areas, prevention of damage to security support systems (CCTV), customer assistance, and crowd control. The Operations Control Center is the primary interface with emergency responders.

Customer Safety Officers are positioned at the Operations Control Center, terminus stations, and select stations and trains. The staff are responsible for providing Level 2 Security. Responsibilities include security monitoring via the security console at the Operations Control Center, roving patrols on-board trains, fixed posts at terminus stations, fixed posts at select stations, and roving patrols of parking facilities. The staff also provide support for Level 1 Security.

The Honolulu Police Department is responsible for Level 3 Security on an as needed basis. The responsibilities include addressing suspected or actual criminal activity.

Three park-and-ride lots are located at the UH-West Oahu, Ho'opili and Aloha Stadium stations, with the potential for additional sites in the future

Table 2 lists the names and locations of the rail stations and its planned station features, by operating segment.

Table 2. H	onolulu Rail	Transit	Stations and	Station	Features

STATION	PLANNED STATION FEATURES					
Phase I: East Kapolei to Alo	ha Stadium (Initial Operating Segment)					
Kualaka'i	Kualaka'i					
(East Kapolei)						

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	29 of 100



	STATION	PLANNED STATION FE	ATURES	
(Unive	<i>Keone'ae</i> sity of Hawaii West O'ahu)	Park-And-Ride Lot		
	<i>Honouliuli</i> (Ho'opili)	Park and Ride l	ot	
	Hōʻaeʻae (West Loch)			
	<i>Pouhala</i> (Waipahu)	Major Bus Interface With Bu	s Transit Cer	nter
(Leev	Hālaulani vard Community College)	Community College I Access From Below Platfor Space		n
	<i>Waiawa</i> (Pearl Highlands)			
	<i>Kalauao</i> (Pearlridge)			
	<i>Hālawa</i> (Aloha Stadium)	Park-And-Ride Lot Major Bus Interface		
	Phase II: Aloha Sta	dium to Ala Moana Center		
(Pe	<i>Makalapa</i> earl Harbor Naval Base)	_		
(Hond	<i>Lelepaua</i> Iulu International Airport)	Pedestrian Walkways To Ai	rport Termii	nal
	Āhua (Lagoon Drive)	-		
	Kahauiki (Hauiki) (Middle Street)	Major Bus Interface With Bu Pedestrian Bridge To Tra		1
	Mokauea (Kalihi)	-		
	Niuhelewai (Kapālama)	-		
	Kūwili (Iwilei)	Entry Building Off Transit Plaza		
Н	olau (Hōlau – Hoʻolau) (Chinatown)	Entry Building Off Pede	strian Plaza	
Document	RSP-00001		Revision	Pa
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STATION	PLANNED STATION FEATURES
<i>Kuloloia</i> (Downtown)	Entry Off Pedestrian Urban Courtyard
<i>Kaʻākaukukui</i> (Civic Center)	Passenger Plaza Adjacent To Entry Building

6.3 Passenger Vehicles

The basic trainset is configured as a consist of four passenger vehicles permanently coupled, classified as type E1, E2, M1, M2.

The train configuration is:

- E1-M1-M2-E2
- or End car 1, Middle car 1, Middle car 2 and End car 2



E1-car and E2-car have the same carbody shell. There are few differences in the equipment mounted on each E-car. M1-car and M2-car will also be designed to have the same carbody shell and few differences in the equipment provided for each car.

Table	3.	4-Car	Vehi	cle	Parameters

Design Capacity (AW2): 4 pass/m ²	415787 [lb] (188,598 [Kg])
Vehicle length [ft.]	256.56
Tare Weight [lb]	288,072
Wheel diameter (new / worn out) [in]	[28.0 / 26.0]
Bogies	2 Motor Bogies (per car)
N° Shoe collectors per bogie	2 (1 per side)
Maximum Speed [mph]:	55

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	31 of 100



6.4 Rail Operations Center (ROC)

The Rail Operations Center (ROC), is located between the Waipahu and Leeward Community College stations, and includes facilities to repair, maintain, clean, and store revenue-service vehicles and MOW equipment and to support the maintenance of the system. The ROC contains four buildings:

- Operations and Service Building (OSB), where revenue vehicles are repaired as well as housing the Operations Control Center (OCC), the Security Command Console and offices for the various departments;
- Train Wash Facility (TWF), where revenue vehicles are cleaned;
- MOW building, which includes storage for MOW vehicles along with office space; and
- Wheel Truing Facility (WTF), which includes the machine to true wheels, which gives the wheels the proper shape for maintenance and to eliminate flat spots.

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	32 of 100



DEPARTMENT OF TRANSPORTATION SERVICES AGENCY RAIL SAFETY PLAN



Figure 3.3 Rail Operations Center (Maintenance and Storage Facility)

6.5 Operations and Maintenance

Technical details and specifications are provided in the DTS Rail Operations and Maintenance Plan.

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	33 of 100



7 COMPONENT I - SAFETY MANAGEMENT POLICY

The Safety Management Policy is the written foundation of the DTS SMS. It formally and explicitly commits DTS to the development and implementation of the organizational structures and resources necessary to sustain the safety management processes and activities. DTS' Safety Management Policy establishes a transit agency's top executive is ultimately accountable for safety management.

Section 2.1 of SSOA Rail Transit Safety Oversight Program Standards & Procedures (PSP) and 49 CFR 673.23(a) requires DTS to establish organizational accountabilities and responsibilities and have a written statement of safety management Policy, which includes the agency's safety objectives.

- Safety objectives
- Confidential and anonymous employee reporting program
- Organizational accountabilities and safety responsibilities
- Designation of a Chief Safety Officer

7.1 Policy

DTS, the City and County of Honolulu, and its contractors for the rail system, are committed to providing safe, reliable, efficient, and resilient rail transportation service. Safety and security are critical functions, which affect all activities, therefore, all City and County of Honolulu employees and contractors are charged with promoting the safety and security of customers, employees and the public through the implementation of an SMS as described in this plan and other applicable plans and policies. DTS and its contractors are required to conduct their duties in a safe manner to prevent and/or minimize injury and property damage. DTS managers are expected to be leaders in promoting safety and security throughout the organization and to provide the authority, support, and resources necessary to establish and maintain high safety standards. They have the primary responsibility for eliminating unsafe conditions and preventing accidents.

All DTS rail employees and contractors are governed by the requirements and terms of the ARSP and the SSP and must follow the rules and procedures applicable to their areas of responsibility. As the contracted rail service provider, LOMC-CSC is responsible for providing the safety programs, training and equipment, which enable employees to avoid accidents and injuries. All employees must take an active part in identifying and reporting hazards and security threats and must know the response plans for abnormal and emergency situations, which apply to their assignments. Each rail system contractor must implement the ARSP through plans, procedures, and work instructions accepted by DTS. All contractor managers

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	34 of 100



and supervisors must guide the process of identifying, assessing and resolving hazards and threats and are expected to cooperate fully with the DTS CSSO in this endeavor.

DTS is committed to an environment where open and honest communications with employees and contractors are encouraged and employees and contractors are encouraged to submit reports relating to safety and hazardous conditions. DTS provides SMS training to all DTS rail employees and to the management level of all DTS rail contractors. All DTS Rail contractors are required to, in turn, provide SMS training to all of their remaining employees and all of their rail subcontractors.

When employees and contractors submit information of hazardous conditions, there are no repercussions, however, if the employee and/or contractor willingly and/or negligently caused the hazardous conditions there could be consequences. To support these communications, each organization establishes and maintains an anti-retaliation program to protect employees who report unsafe and unhealthy conditions and/or hazards. Such employees and contractors are protected by the Whistle Blower Act when reporting these hazardous conditions. Employees and contractors receive this information during their safety orientation/training.

7.2 Rail Specific Policies

DTS adheres to the following 49 CFR Part 670, 672, 673, and 674 requirements in implementing this ARSP:

- 1. This ARSP, and subsequent updates, must be approved and signed by the Director Accountable Executive, Director of Rapid Transit, Chief Safety and Security Officer, and the Safety Systems and Incident & Accident Investigation Committee and adopted by the City Council of Honolulu.
- 2. This ARSP must document the processes and activities related to SMS implementation.
- 3. This ARSP must include safety performance targets based on the safety performance measures established under the National Public Transportation Safety Plan.
- 4. This ARSP must address all applicable requirements and standards as set forth in FTA's Public Transportation Safety Program and the National Public Transportation Safety Plan.
- 5. DTS must establish a process and timeline for conducting an annual review and update of the ARSP.

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	35 of 100



6. DTS must include or incorporate by reference in the ARSP an emergency preparedness and response plan or procedures, which address, 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 within the DTS service area.

DTS has established the following specific Rail Policies and/or Rail Procedures:

- a) Organizational accountabilities and responsibilities.
- b) Safety policies, procedures, and requirements that integrate safety into decisionmaking and operations.
- c) Assignment of responsibilities related to safety policies, procedures, and requirements.
- d) Methods to verify adherence to safety policies, procedures, and requirements.
- e) Processes to investigate all accidents, fires, injuries, and incidents as warranted.
- f) Methodologies to identify, analyze, and resolve all hazards in a timely manner.
- g) Programs to meet or exceed safety requirements in specifications, facility construction, equipment installation, system testing, and operations and maintenance.
- h) Meet or exceed safety requirements in vehicle operations and maintenance.
- i) Methodologies to evaluate and verify operational readiness of new transportation systems.
- j) Requirements to establish standards and procedures for safety training, and performance.
- k) Requirements to establish and implement a process, which allows employees to report safety issues to senior management including protections for employees who report safety conditions to senior management, and a description of employee behaviors, which may result in disciplinary action.
- I) The ARSP and Contractor Safety Plans are communicated throughout DTS, LOMC-CSC, and other LOMC organizations through the training programs.
- m) Must establish the necessary authorities, accountabilities, and responsibilities for the management of safety amongst the following individuals within its

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	36 of 100



organization, as they relate to the development and management of the transit agency's SMS.

- n) An Accountable Executive for ensuring the agency's SMS is effectively implemented, throughout the agency's public transportation system, and for ensuring Front Line employees are members of the Safety Systems and Incident & Accident Investigation Committee, which reviews and approves the ARSP annually.
- o) Chief Safety Officer or SMS Executive who has the authority and responsibility for day-to-day implementation and operation of an agency's SMS. The Chief Safety Officer or SMS Executive must hold a direct line of reporting to the Accountable Executive. A transit agency may allow the Accountable Executive to also serve as the Chief Safety Officer or SMS Executive.
- p) Agency Leadership and Executive Management (other than the Accountable Executive, Chief Safety Officer, or SMS Executive) who has authorities or responsibilities for day-to-day implementation and operation of an Agency's SMS must be identified

7.3 Purpose, Goals and Objectives

This ARSP describes and documents DTS' overall policies and procedures for overseeing the implementation of its SMS Program. The purpose of this ARSP is to:

- Establish a written statement of safety Policy, which includes the Agency safety objectives, confidential anonymous employee safety reporting program, and organizational accountability and safety responsibilities for the Accountable Executive, Chief Safety Officer, agency leadership, and key staff responsible for safety and performing verification on all safety tasks.
- Establish a process to identify safety hazards and consequences, assessing the safety consequences associated with the identified safety hazards, prioritizing safety hazards based on the level of risk, and implementing safety risk mitigations.
- Establish and implement a process for safety performance monitoring and measurement, management of change, and continuous improvement.
- Establish and implement a comprehensive safety training program, which includes SMS for all employees and contractors directly responsible for safety and their methodology for communicating an agency's safety performance throughout the organization.

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	37 of 100



• Satisfy federal, state, and local requirements.

The ARSP goals are as follows:

- Provide a safe, reliable, high-quality, resilient transportation service for the Honolulu community.
- Clearly identify the organizational responsibilities for the safe operation of the rail system.
- Identify, eliminate, minimize, and/or control safety hazards and risks throughout the project. Ensure compliance with safety, health and environmental laws, regulations and codes.
- Maintain a high level of employee competence for responding to emergency/disaster conditions.
- Establish requirements, lines of authority, levels of responsibility and accountability for the implementation of the DTS safety program within the organization.
- Provide a superior level of safety in transportation operations (i.e., verification of adequate personnel training, operating rules, and operating and maintenance procedures for continuing safe and secure revenue service operations).
- Achieve and maintain a superior level of safety in the agency's work environment (i.e. establish a proactive construction safety and security program, which results in lowest number of incidents for construction employees and the general public, as well as minimized Project security breaches).
- Comply with applicable requirements for regulatory agencies.
- Maximize the safety of future operations through the design and procurement process.
- Meet the FTA's four categories of safety performance measures in the National Public Transportation Safety Plan.

The ARSP goals are attained by achieving the following objectives:

- Establish safety policies, procedures, and requirements, which integrate safety into decision-making and operations.
- Assign responsibilities related to safety policies, procedures, and requirements.
- Verify adherence to safety policies, procedures, and requirements.
- Thoroughly investigate all accidents, incidents, near misses, close calls, fires, injuries, and occurrences of vandalism as warranted.
- Identify, analyze, and resolve all hazards in a timely manner.
- Meet or exceed safety requirements in specifications, facility construction, equipment installation, and system testing, operations, and maintenance.
- Meet or exceed safety requirements in vehicle operations and maintenance.

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	38 of 100



- Establish standards and procedures for safety training, and performance.
- Establish safety performance targets to quantifiably measure the level of performance based on the FTA's four categories of safety performance measures and the two categories of security performance measures.

The ARSP objectives are measured by confirming the following key performance indicators:

- Confirm the Drug & Alcohol program is exceeding the FTA-mandated minimum rate of random drug tests (>50%) and alcohol tests (>10%) per year.
- Confirm 100 percent of LOMC-CSC, other contractors and City and County of Honolulu employees are receiving annual training and certification.
- Confirm at least one emergency drill is performed annually
- Confirm facility and equipment inspections are performed at least once per month and properly documented for DTS approval.
- Confirm vehicles are maintained at the appropriate intervals as specified in the LOMC-CSC Maintenance Plan and OEM specifications, and DTS conducts internal audits on an annual basis.
- Confirm the Health, Safety, Quality and Environmental Steering Committee (HSQESC), the Emergency & Security Systems Committee (ESSC), and the Incident & Accident Investigation Committee (Safety Systems) meet on a monthly basis and official meeting minutes are prepared and distributed to stakeholders.
- Confirm the risk management process is followed through review of each hazards severity and probability of the risk management program.
- Confirm the LOMC-CSC provides the DTS CSSO with an updated HTL on a monthly basis.
- Confirm the appropriate corrective action plans (CAPs) are prepared when identified in the risk management program cannot be corrected by the end of the day.
- Confirm LOMC-CSC provides the DTS CSSO with an updated CAP log on a monthly basis and each CAP is assigned to an individual employee with a target completion date.
- Confirm LOMC-CSC notification of all events is accomplished by phone to the DTS CSSO.
- Confirm a preliminary report is always completed within 48 hours after an accident/incident, and a final accident report, including all root causes and CAPs, are prepared in a format approved by SSOA and submitted within 30 days of an event.

7.4 Management Structure and Organization

The management and oversight of the ARSP is the responsibility of the DTS CSSO. The system has been built using a design-build contracting strategy and is operated by a contracted rail

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	39 of 100



service operator. Consequently, the implementation of the ARSP activities is primarily the responsibility of two organizations:

- DTS
- The City's Operations and Maintenance for rail (LOMC-CSC)

The DTS Director, Director of Rapid Transit, and Chief Safety and Security Officer are the key executive staff.

Director of Rapid Transit: Administers and directs the activities of the City's multi-modal public and privatized transportation programs. This includes direct administrative oversight of rapid transit assets, operations, safety, security, contract compliance, and maintenance activities across all departmental divisions; may perform other related duties as required. The position reports directly to the Director and is distinguished by its primary responsibility for assisting the appointive Director in administering and directing a robust multi-modal transportation system for the City. The position is afforded full management oversight and responsibility for the multimodal transportation program. The position oversees through subordinate managers and supervisors, the planning, development, operations, maintenance, integration, and expansion of the City's multi-modal (e.g., bus, rail, ADA complementary paratransit services) public and privatized transportation network, through all of DTS' divisions.

Chief Safety and Security Officer: The position is responsible for environmental, health, and safety, system safety and compliance, emergency, cyber security, and security functions. The position serves as the safety, emergency, and security subject matter expert. The position is the primary liaison with the State Safety Oversight Agency and is responsible for safety and security certifications. The position manages and directs the complex development, implementation, monitoring, evaluation, and enhancement of safety, emergency, and security programs for multimodal transportation. The position is responsible for the reduction and mitigation of hazards, injuries, accidents, as well as threats and ensures compliance with local, state, and federal laws, regulations, and standards.

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	40 of 100



7.4.1 Safety and Security Office Organization and Oversight Responsibilities

The DTS Safety and Security Office is responsible for overseeing the safety and security programs of the rail system. The DTS CSSO has the overall responsibility of overseeing the implementation of the safety and security programs. The DTS CSSO has two direct reports to assist in the oversight of contractor safety and security activities.

7.4.2 Chief Safety and Security Officer

The DTS CSSO is responsible for safety, emergency, and security design criteria, policies, plans, procedures, work instructions, practices, and activities for multimodal transportation. The position has overall responsibility for the Safety and Security Office including environmental, health, and safety, system safety and compliance, emergency, cyber security, and security functions. The position serves as the safety, emergency, and security subject matter expert. The position is the primary liaison with the State Safety Oversight Agency and is responsible for safety and security certifications. The position manages and directs the complex development, implementation, monitoring, evaluation, and enhancement of safety, emergency, and security programs for multimodal transportation. The position is responsible for the reduction and mitigation of hazards, injuries, accidents, as well as threats and ensures compliance with local, state, and federal laws, regulations, and standards.

Other oversight responsibilities include, but are not limited to:

- Participating in monthly safety and security committee meetings to discuss system safety and security issues, including chairing the HSQE Steering Committee;
- Ensuring annual Internal Safety Audits and other audits as required are completed;
- Reviewing the ARSP and SSP annually;
- Participating in annual emergency preparedness drills and tabletop exercises; and
- Reviewing LOMC-CSC and other contractor corrective action plans;
- Participating in regular SSOA meetings;
- Managing and updating SMS processes based on experiences and lessons learned.

The DTS CSSO oversees and coordinates with the LOMC-CSC Head of HSQE and other contractor Safety Professional's assigned to the rail system.

7.4.3 Manager of Safety Systems

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	41 of 100



The Manager of Safety Systems is responsible for multimodal agency safety plans including safety management systems, programs, and procedures as they relate to employee safety and health, and the operational, maintenance, and industrial aspects of safety. The position oversees hazard identification, reporting, mitigation and corrective action plans. Responsible for analyzing situations, identifying problems, recommending practical solutions, and evaluating outcomes. The position is responsible for the implementation and maintenance of the ARSP, including SMS, and oversees LOMC-CSC and other contractors in performing hazard identification, reporting, mitigation, and corrective action plans.

Other oversight responsibilities include, but are not limited to:

- Participating in monthly committee meetings to discuss system safety issues, including the IAICSS;
- Conducting safety audits as required;
- Participating in annual emergency preparedness drills and tabletop exercises;
- Reviewing LOMC-CSC and other contractor's corrective action plans;
- Communicating lessons learned with employees and contractors;
- Implementing the Safety Systems Compliance Manual; and
- Providing SMS training to DTS rail staff and DTS contractors (manager level and above).

The Manager of Safety Systems oversees and coordinates with the LOMC-CSC Safety & Security Manager.

7.4.4 Manager Emergency & Security Systems

The Manager Emergency & Security Systems is responsible for multimodal emergency and security programs, training, procedures, drills and exercises for operations and facilities. Responsible for the complex development, implementation, monitoring, evaluation, and enhancement of the DTS emergency and security system programs. Serves as liaison with other agencies to improve interagency coordination for emergency and security preparedness. The position is responsible for the implementation, and maintenance of the SSP, overseeing emergency management and security programs, training, procedures, drills and exercises, and will serve as the liaison with other agencies to improve interagency.

Other oversight responsibilities include, but are not limited to:

• Participating in monthly committee meetings to discuss emergency and security issues, including participating in the ESSC

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	42 of 100



- Overseeing the Level 2 security contractor;
- Participating in audits related to system security and emergency preparedness;
- Participating in annual emergency preparedness drills and tabletop exercises;
- Reviewing and approving LOMC-CSC emergency drill after-action reports; and
- Implementing the Emergency and Security Systems Compliance Manual.

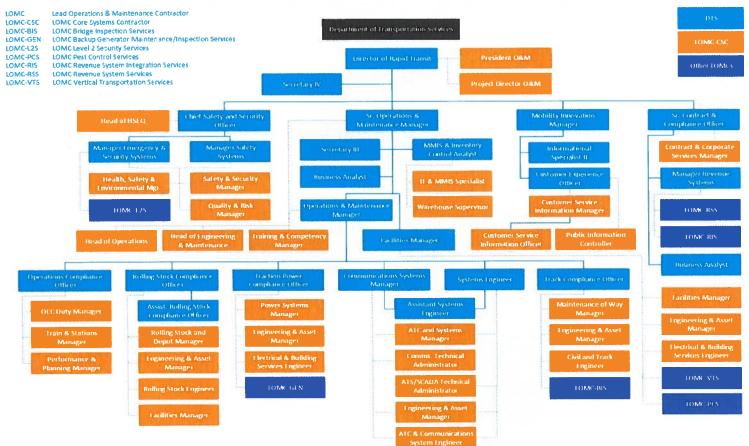
The Manager Emergency & Security Systems oversees and coordinates with the LOMC-CSC HSQE/Quality/Risk Manager, and manages the Level 2 security contractor.

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	43 of 100



The following organizational chart (Figure 4) presents the contractor oversight structure for the DTS.





7.4.5 ARSP Implementation

The implementation of the ARSP is based on the MOU between DTS and HART signed on April 12, 2019. HART has primary responsibilities during the design, construction, testing, and commissioning phases of the project. DTS is the primary agency responsible for overseeing and managing the ARSP during operations and maintenance and is accountable for safety and security activities. The LOMC-CSC is responsible for the day-to-day safety and security activities on the system.

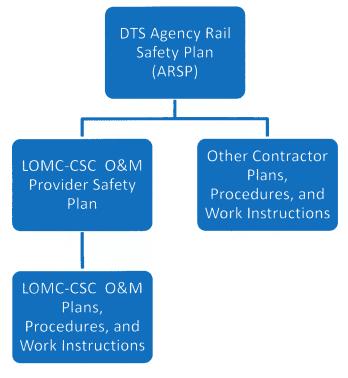
Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	44 of 100



7.4.6 System Safety Document Hierarchy

As shown in Figure 5, LOMC-CSC as the O&M contractor supports DTS in the implementation of its ARSP. Various supporting plans, procedures, and work instructions ensure LOMCs and subcontractors, with DTS oversight, achieve the ARSP goals and objectives to include safety performance targets.

Figure 5. System Safety Document Hierarchy



7.4.7 ARSP Activities and Tasks

As noted in the Policy section, the responsibilities for implementing the ARSP activities are primarily divided among two organizations:

- DTS
- LOMC-CSC

The DTS CSSO is responsible for overseeing the implementation of ARSP. Specifically, the DTS CSSO is responsible for:

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	45 of 100



- Issuing and maintaining the ARSP
- Promoting SMS
- Reviewing and approving safety policies, rules, procedures, and work instructions prepared by LOMC's in support of the operations and maintenance
- Chairing and Managing the HSQE Steering Committee
- Overseeing the Hazard Management Process implemented by LOMC-CSC
- Implementing Safety Certification Programs for new system modifications
- Reporting to SSOA on safety issues as required
- Ensuring LOMC-CSC provides timely Accident/Incident Notification, Investigation and Reporting as described in the LOMC-CSC operating procedures
- Overseeing Emergency Response Planning/Coordination/Training as established by the LOMC-CSC Emergency Response Plan
- Overseeing Internal Safety, Security and Emergency Reviews and Audit Processes
- Ensuring Compliance/Procedures Reviews
- Participating in Maintenance Reviews/Inspections established by LOMC-CSC
- Training and Certification Reviews established by LOMC-CSC
- Demonstrating Compliance with local, state and federal requirements
- Overseeing a Hazardous Materials Program as defined by the approved LOMC-CSC Hazardous Materials Program Plan
- Overseeing the Drug and Alcohol Program including conducting annual audits on the LOMC-CSC Drug and Alcohol Policy and Program

As the contracted rail operations and maintenance service provider, LOMC-CSC is responsible for the day-to-day activities associated with operating and maintaining the system. The LOMC-CSC is responsible for implementing and maintaining its plans, procedures, and work instructions to support the following ARSP responsibilities:

- Maintain a current SMS Implementation Plan with annual reviews and updates The SMS Policy to be communicated throughout the organization and LOMC-CSC shall ensure each LOMC-CSC employee and each LOMC-CSC contractor (manager level and higher) is provided SMS training as part of new employee orientation including hazard reporting, accident/incident/near miss/close call reporting, confidential anonymous reporting and the anti-retaliation policy. LOMC-CSC shall encourage all of its contractors to provide the same training to its remaining employees.
- Lead and chair the Safety Systems and Incident and Accident Investigation Committee, which consists of an equal number of frontline employees and management representatives. The committee identifies and recommends risk-based mitigations or strategies necessary to reduce the likelihood and severity of consequences identified

Document	ocument RSP-00001		Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	46 of 100

through the agency's safety risk assessment; identifies mitigations or strategies that may be ineffective, inappropriate, or were not implemented as intended; and identifies safety deficiencies for purposes of continuous improvement. Additionally, the committee shares the outcomes of incident/accident investigations, status of corrective actions and/or mitigations, as well as applicable statistics. Control safety risk better, detect and correct safety problems earlier, share and analyze safety data more effectively, and measure safety performance more carefully.

- Maintain the Hazard Tracking Log and Open Item List. Update the Agency Rail Safety Plan on an as-needed basis.
- Develop and implement a risk reduction program to improve safety and security by reducing the number and rates of accidents, injuries, and assaults on Transit workers based on data submitted to the national transit database under section 5335.
 Continuously update safety and security performance targets for the risk reduction program using a 3-year rolling average of the data submitted by the recipient to the national transit database under section 5335. Meet the performance targets for the risk reduction program.
- Maintain a current Safety Data Management Procedure with annual reviews and updates The process used to collect, maintain, analyze, and distribute safety data
- Maintain current Accident and Incident Notification, Reporting and Investigation Procedures with annual reviews and updates, including reporting to DTS on a monthly basis to support National Transit Database (NTD) reporting requirements as necessary
- Maintaining a current Emergency Preparedness and Response Plan with annual reviews and updates
- Maintaining a current Safety Risk Management Process, Policy and Procedures with annual reviews and updates including a detailed hazard management process
- Change Control Committee, including Configuration Management Process for identifying and assessing changes, which may introduce new hazards or impact the transit agency's performance
- Corrective Action Plan Procedures Process used to develop, implement, and track corrective actions, which address investigation findings as specified in the SSOA Program Standard Plan and is compliant with the SSOA PSP.
- Prepare and establish operations and maintenance policies, rules, plans, procedures, and work instructions to include any bulletins, which are reviewed and updated annually.
- Rules Compliance Procedures Operating and maintenance rules and procedures, which affect safety are regularly reviewed and updated.

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	47 of 100



- Maintain a current Facilities and Equipment Inspection Plan with annual reviews and updates ensuring regular facility and station inspections are conducted, memorialized, and deficiencies are logged as CAPs.
- Maintain a current Maintenance Audit and Inspection Program with annual reviews and updates, which confirm preventive maintenance and the corrective maintenance programs are conducted at regular intervals to ensure equipment does not compromise safety and performance.
- Maintain a current Training and Certification Program Plan with annual reviews and updates
- Maintain a current Hazardous Materials Program with annual reviews and updates
- Maintain a current Drug and Alcohol Policy and Program with annual reviews and updates
- Maintain a current Employee Communications Program with annual reviews and updates

7.4.8 Confidential Employee Reporting Program

DTS requires an anti-retaliation program, which enables both employees and contractors to report safety and security issues without fear of retaliation. DTS employees and its contractors must notify management when issues are identified. DTS encourages a positive workplace culture, which prevents unlawful retaliation against its employees and contractors and ensures whistleblowers are protected per the Whistleblowers Act. LOMC-CSC maintains a Safety Database to store all reported hazards and concerns from DTS and its contractors along with customers. All entities can report via phone, mailbox, QR code, and orally to a LOMC-CSC or DTS employee. LOMC-CSC produces reports from the Safety Data Base, which are transmitted, to the DTS CSSO at the HSQE Steering Committee meetings. DTS has full access to this Safety Data Base.

LOMC-CSC is also responsible for establishing a confidential employee reporting program to allow employees to report safety issues without fear of reprisal. This information is included as part of the Safety Data Base LOMC-CSC transmits to the DTS CSSO on a monthly basis.

7.4.9 Integration of Safety Functions into Operations and Maintenance Activities

The DTS CSSO interfaces and communicates with other departments within the City, outside agencies, and contractors, including the LOMC-CSC.

Listed below are the primary departments and agencies which interface with the DTS CSSO:

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	48 of 100



- LOMC-CSC Operations
- LOMC-CSC Engineering & Maintenance
- LOMC-CSC Health, Safety, Quality and Environmental (HSQE)
- LOMC-CSC Contracts and Corporate Services
- Honolulu Police Department
- Honolulu Fire Department
- Honolulu Emergency Medical Services
- Honolulu Department of Emergency Management
- Transportation Security Administration
- Department of Homeland Security

The DTS CSSO works with these departments to receive information, identify safety concerns, conduct internal reviews and inspections, develop recommendations and review and approval of corrective action plans to address safety concerns, track and verify the implementation of recommendations and corrective action plans, and report findings to leadership.

The DTS CSSO, the DTS MSS and the DTS MESS coordinate with these departments and agencies through the following committees:

- Health, Safety, Quality and Environmental Steering Committee (HSQESC)
- Emergency & Security Systems Committee (ESSC)
- Safety Systems and Incident and Accident Investigation Committee (SSIAIC)

Refer to Section 3.8 for further details on the rail operations safety and security review committees.

8 COMPONENT 2 – SAFETY RISK MANAGEMENT

The Safety Risk Management component is comprised of the processes, activities, and tools DTS and its contractors use to identify and analyze hazards and evaluate safety risks in operations and supporting activities. It allows DTS to carefully examine what could cause harm and determine whether DTS has taken sufficient precautions to minimize the harm, or if further mitigations are needed.

DTS has established a Risk Management Process, which includes:

- Processes for hazard identification
- Risk assessment
- Mitigation development and tracking

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	49 of 100



CAPs for Management of Change during operations

In support of the DTS ARSP, LOMC-CSC developed and implemented a Safety Risk Management Process for all rail-related elements of the public transportation system, which would be comprised of the following activities:

- Safety Hazard Identification: methods or processes to identify hazards and consequences of hazards.
- Safety Risk Assessment: establish methods or processes to assess the safety risks associated with identified safety hazards, including an assessment of the likelihood and severity of the consequences of hazards, including existing mitigations, and prioritization of the hazards based on the safety risk.
- Safety Risk Mitigation: establish methods or processes to identify mitigations or strategies necessary as a result of the agency's safety risk assessment to reduce the likelihood and severity of the consequences.
- Safety Risk Tracking and Reporting: establish methods or processes for tracking and reporting safety risks, unacceptable hazards, and undesirable hazards and provide ongoing communication to the DTS CSSO
- Develop and implement a risk reduction program with Safety and Security Performance Targets to improve Safety and Security by reducing the number and rates of accidents, injuries, and transit worker assaults (based on the data submitted to the NTD on a monthly basis

DTS oversees the LOMC-CSC Risk Management Program through the following activities:

- Conduct annual audits of the LOMC-CSC Risk Management Program.
- Chair the monthly HSQESC meetings and discuss any hazards and risks identified by or reported to the LOMC-CSC.
- Review, approve, and track all corrective action plans.

8.1 Overview

The hazard management process defines the on-going process of:

- Identifying hazards
- Evaluating and prioritizing mitigations for elimination or control of hazards
- Tracking identified hazards through resolution
- Reporting of hazards to the DTS CSSO who notifies the SSOA
- Regularly evaluating the effectiveness of implemented risk mitigations

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	50 of 100



8.2 Hazard Management Process – Activities and Methodologies

The hazard management process is the primary tool used to ensure the safety of activities, facilities, and vehicles. This process is accessible to all levels of the organization and is the means by which hazards are identified and analyzed for potential impacts on the rail system. The hazard management process includes hazard identification, hazard investigation, evaluation and analysis, hazard control and elimination, and hazard tracking, and will follow the guidelines as detailed below.

A safety hazard is any real or potential condition, which can cause injury, death, and/or damage or loss of equipment and property. Hazard Analyses (HA) is conducted in accordance with the FTA guidance document Hazard Analysis Guidelines for Transit Projects and in MIL–STD 882E, Standard Practice for System Safety. Hazard Analyses (HA) shall be conducted in a manner, which meets or exceeds the FTA guidance document Hazard Analysis Guidelines for Transit Projects and in MIL–STD 882E, Standard Practice for System Safety. Hazard Analyses (HA) shall be conducted in a manner, which meets or exceeds the FTA guidance document Hazard Analysis Guidelines for Transit Projects and in MIL–STD 882E, Standard Practice for System Safety.

The objective of the hazard identification, analysis, and resolution process is to identify and define as many credible hazardous conditions as possible as early as possible and to eliminate or control these hazardous conditions or associated activities prior to their causing or contributing to the aforementioned conditions. This is accomplished by the following:

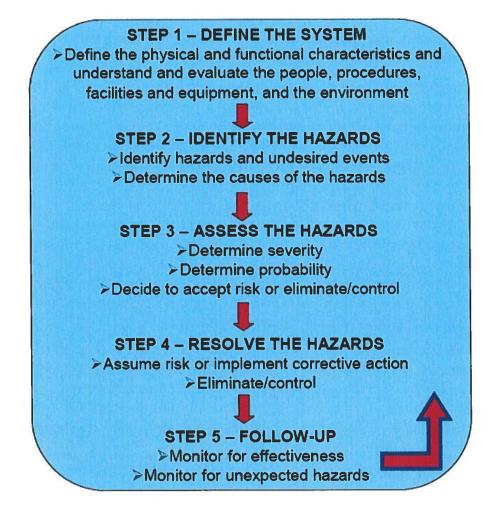
- Identifying potential hazards resulting from failure of system elements and determine their impact on the overall system, people, property, and the environment
- Identifying hazardous activities, which could affect the transit system's safe operation
- Identifying potential accidents and the consequences (e.g., fatalities, injuries, damage, and service interruptions) associated with each hazardous condition
- Identifying measures, which will prevent accidents by eliminating or controlling the underlying hazards
- Documenting the hazard analysis results in a clear and concise manner and facilitating resolution of the unresolved hazards until they are closed.

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	51 of 100



An overview of the hazard identification and resolution process is described in Figure 6.

Figure 6. Hazard Identification and Resolution Process



8.3 Methods for Defining the System

The first step in the hazard identification and resolution process is to define the physical and functional characteristics of the system to be analyzed. These characteristics are considered in terms of the individual elements, which make up the total system including: equipment and subsystems, procedures, people and the environment. A thorough knowledge and understanding of how individual system elements interface with each other is essential to the hazard identification effort.

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	52 of 100



8.4 Hazard Identification and Investigation: Methods for Identifying and Evaluating Safety Risks

Contractors with DTS oversight, incorporate several methods for identifying hazards on the operating system. Hazard identification techniques used for the operations and maintenance of the system include, but are not limited to the following:

Employee Identified Safety Reports - Through the implementation of SMS, all DTS and LOMC employees are encouraged and required to report hazardous conditions. These can be reported to OCC, to the Safety Hotline (confidentially and anonymously), through the SMS QR code, to a Supervisor, through the use of the LOMC-CSC's EcoOnline Reporting tool, through the use of the LOMC-CSC's Safety Managers mailbox.

 Operations and Maintenance Inspection Reports – Through the implementation of SMS, all DTS and LOMC employees are encouraged and required to report hazardous conditions. These can be reported to OCC, to the Safety Hotline (confidentially and anonymously), through the SMS QR code, to a Supervisor, through the use of the LOMC-CSC's EcoOnline Reporting tool, through the use of the LOMC-CSC's EcoOnline QR Code, or in the LOMC-CSC's Safety Managers mailbox. LOMC-CSC has established a program of inspecting Operations and Maintenance facilities.

Close-Call/Near Miss Event Reports – Through the implementation of SMS, all DTS and LOMC employees are encouraged and required to report close-call events. These can be reported to OCC, to the Safety Hotline (confidentially and anonymously), through the SMS QR code, to a Supervisor, through the use of the LOMC-CSC's EcoOnline Reporting tool, through the use of the LOMC-CSC's Safety Managers mailbox.

- Internal Safety Audits DTS conducts internal safety audits on the activities identified in the ARSP. DTS initiates corrective action plans (CAPs) based on findings and recommendations from the internal safety audits, as necessary, which are added to the LOMC-CSC CAP log.
- Emergency Tabletop and Drill Exercises LOMC-CSC conducts an annual emergency response exercise. Findings and recommendations from the exercises are documented in after-action reports and deficiencies result in corrective action plans (CAPs).
- **Operations Activity Reports including Customer Complaints** The HSQESC and DTS review customer complaints for hazardous conditions. Findings and recommendations from the committee reviews may generate corrective action plans (CAPs).

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	53 of 100



- Other Agencies DTS and its contractors use notifications, publications, audits/inspections and applicable standards from federal, state, and local sources to collect hazard information on the rail system.
- State Safety Oversight Agency and or the Federal Transit Administration Either Agency may be a possible source of hazard information.

Risk assessments are used to determine the acceptability of assuming the risk associated with assessing hazards and involves two primary steps: first evaluating the hazard severity (categorizing the hazard) and second evaluating hazard probability. A hazard severity rating is assigned to each hazard based on the definitions in MIL–STD 882E, Standard Practice for System Safety. It is a subjective determination of the worst case scenario, which could be anticipated to result from human error, design inadequacies, component failure, or malfunction. The categorization of hazards is consistent with risk-based criteria for severity; it reflects the principle not all hazards pose an equal amount of risk to safety.

DTS defines safety risk severity categories as a qualitative measure of the worst credible outcome, as indicated in Figure 7:

Category	Description	Severity Definitions
1	Catastrophic	Operating conditions are such that human error, environment, design deficiencies element, sub-system, or component failure or procedural deficiencies may cause dire events resulting in major system loss, thereby requiring immediate cessation of the unsafe activity or operation.
2	Critical	Operating conditions are such that human error, environment, design deficiencies, element, sub-system or component failure or procedural deficiencies may cause severe harm to persons or major system damage thereby requiring immediate action including immediate cessation of the unsafe activity or operation.
3	Marginal	Operating conditions may cause minor harm or minor system damage such that human error, environment, design deficiencies, element, sub-system or component failure or procedural deficiencies can be counteracted or controlled without serious injury, illness or major system damage.

Figure 7. Safety Risk Severity Categories

Docume	nt RSP-00001	Revision	Page
File Nar	ne RSP-00001 01.00 Agency Rail Safety Plan	0	54 of 100



4	Negligible	Operating conditions are such that human error, environment,
		design deficiencies, element, sub-system or component failure or
		procedural deficiencies will result in no, or less than minor, harm or
		system damage.

The probability of occurrence level is assigned to each identified hazard based on the likelihood of its occurrence during the life of the System. A qualitative hazard probability is derived from research, analysis, or historical safety data from similar transit systems. Staff may use either deductive or inductive evaluation methods, depending on circumstances to determine ratings for severity and likelihood. Hazard probability levels are shown in Figure 8:

Figure 8.	Safety	Risk	Probability	Levels

Frequency	Level	Probability Definitions
Frequent	A	Likely to occur frequently to an individual item. Continuously experienced in the fleet inventory.
Probable	В	Will occur several times in life of an item; will occur frequently in fleet/inventory.
Occasional	С	Likely to occur sometime in life of an item; will occur several times in fleet/inventory.
Remote	D	Unlikely, but possible to occur in life of an item; unlikely but can be expected to occur in fleet/inventory.
Improbable	E	So unlikely, it can be assumed occurrence will not be experienced to an individual item; unlikely to occur but possible in fleet/inventory.

8.5 Evaluation and Analysis: Methods for Evaluating Safety Risks

Safety Risk assessment and prioritization criteria are established through the process documented in this section. All official risk assessment and prioritization activities and any required actions developed as a result of assessments, will be led by the DTS CSSO. Once the severity and likelihood of the worst credible outcome have been established, the Safety Risk Index (SRI) can be calculated; i.e., the level of safety risk as a composite of severity and likelihood of the potential consequence of the hazard.

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	55 of 100



Figure 9. Safety Risk Index

Frequency of Occurrence	1	2	3	4
Α	1A	2A	3A	4A
В	1B	2B	3B	4B
С	1C	2C	3C	4C
D	1D	2D	3	4
			D	D
E	1E	2E	3E	4E

A risk assessment determines the acceptability of assuming the risk associated with a hazard. It enables understanding the risk in relation to the costs, which may be incurred. The risk assessment matrix combines the severity and probability of the hazard and quantifies the necessity for implementing corrective measures to reduce the hazard to an acceptable level. DTS uses the Hazard Risk Assessment Matrix to prioritize hazardous conditions and focus resources on the most serious hazards requiring resolution. The results of the assessments are documented and presented to the HSQESC for review and acceptance.

The Hazard Risk Index value determines the specific level of action required. Hazards with a risk index of "Unacceptable" or "Undesirable" are not permitted and must be eliminated, controlled, or reduced to an acceptable level.

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	56 of 100



	S R I	Decision Authority	Special Conditions
High	1A, 1B, 2A, 2B, 3A	Unacceptable	Requires immediate resolution*
Medium	1C, 1D, 2C, 2D, 3B, 3C	Undesirable	Actions require CSSO review and approval, with concurrence from the AE*
Low	1E, 2E, 3D, 3E, 4A, 4B	Acceptable with Review	Requires management review in consultation with CSSO or designee
Acceptable	4C, 4D, 4E	Acceptable	None – Can be managed at department- level

Figure 10. Safety Risk Acceptance Criteria

For hazards/consequences rated "high" or "medium," the SSOA must be notified as soon as practicable or no later than the conclusion of the safety risk assessment.

If the hazard is currently mitigated, the investigation involves an assessment of the effectiveness of current mitigations or a determination of whether they are sufficient to address the associated risk, and if changes or additional mitigations are warranted to further reduce risk (until it reaches an acceptable level).

Based on the approved decision authority level, which results from the safety risk assessment—unacceptable, undesirable, acceptable with review, or acceptable—the department performing the assessment is responsible for notifying immediately OCC if they are not already involved. Ultimately the HRH Head of HSQE will notify the DTS CSSO. The DTS CSSO will notify the DTS Accountable Executive and the SSOA as appropriate.

8.6 Hazard Control and Elimination: Strategy to Resolve / Minimize Exposure of Public, Personnel, and Property to Hazard / Unsafe Conditions

The Hazard and Risk Resolution process involves the analysis and corrective actions taken to reduce the risk associated with an identified hazard to the lowest practical level. The order of precedence for satisfying system safety requirements and resolving identified hazards is listed below:

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	57 of 100



- **Design for Minimum Risk** Design new facilities and equipment to eliminate hazards. If an identified hazard cannot be eliminated, its associated risks must be reduced to an acceptable level through the design selection.
- Use of Safety Devices In the event an identified hazard cannot be eliminated, or its associated risk cannot be reduced through design selection, the risk must be reduced to an acceptable level through the use of protective safety features or devices. Provisions must be made, and procedures must be issued, for periodic inspection and functional checks of safety devices.
- Warning Devices When neither design nor safety devices can effectively eliminate identified hazards or reduce risk to an acceptable level, warning devices must be used to detect the condition and produce an adequate warning signal to alert individuals to the hazard. Warning devices will be standardized to minimize the probability of incorrect reaction of personnel to these warning signals.
- Develop Special Procedures and Training When it is impossible or impractical to eliminate hazards through design selection or adequately reduce its associated risks through safety or warning devices, then approved procedures and special training programs must be used. Procedures may include the use of personal protective equipment. Precautionary notations and warning signs must be standardized. Employees who perform safety critical tasks require certification of proficiency and periodic recertification.

Typically, hazards are controlled by more than one corrective method. The use of warning, caution, and other forms of written advisories to control Severity Category I (Catastrophic) and Category II (Critical) hazards will be carefully reviewed to ensure no other additional countermeasures are necessary.

The last step in the hazard identification and resolution process is the follow-up. The Change Control Committee will monitor the effectiveness of the recommended countermeasures and ensure new hazards are not introduced as a result. DTS and its contractors use a hazard tracking system to track hazards until closure and reopen hazards if necessary. In the event there are design changes, deviations, or other changes to the elements of the system being analyzed, a new hazard analysis may be conducted to identify and resolve any potential new hazards. The Safety and Security certification process ensures all identified safety hazards and security vulnerabilities have been eliminated or reduced to an acceptable level prior to revenue service.

8.7 Hazard Tracking: Methods for Tracking and Reporting Safety Risks

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	58 of 100



The identification and management of hazards is a key element of the safety management program, which contributes to the safety program. The following, therefore, applies:

- Information relative to hazard identification is formalized in a Hazard Tracking Log (HTL) system which provides a means for monitoring completion of actions arising from hazard identification studies, in one central database.
- The HTL database allows all hazards to be listed, viewed, printed, sorted, and modified and thereby aides the management of the risk mitigation process.
- The HTL maintenance and update is a LOMC-CSC function, in coordination with the DTS CSSO.
- The DTS CSSO reviews and accepts all HTL CAPs, and thereafter submits the CAPs to the SSOA for review and approval. The LOMC-CSC provides an updated copy of the HTL to the DTS CSSO on a monthly basis.

LOMC-CSC, with DTS oversight, performs all the necessary activities pertaining to hazard analyses and risk assessment. This information is included in the HTL by the LOMC-CSC. The HTL contains the following information at a minimum:

- ID Number
- Hazard Description
- Date Identified
- Employee assigned to the Hazard
- Target date for completion
- Hazard Source
- Initial Hazard Risk Index
- Immediate Actions and Interim Mitigation (if applicable) with documentation
- Hazard Resolution/CAPs
- Post-mitigation Hazard Risk Index
- Status

Hazard sources include internal safety and security audits, hazard investigations, SSOA directives, event investigations, NTSB investigations, Three- year safety and security audits, emergency drills/exercises, other sources including the SSOA and/or FTA oversight activities indicate an opportunity to intervene with an identified systematic problem or other concern/deficiency proactively before the problem/concern/deficiency becomes a reportable event (customer/employee/public hazard reporting.

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	59 of 100



In general, a hazard is fully controlled when all actions necessary to resolve the hazard are implemented to ensure the risk remains at an acceptable level. The hazard can be closed when:

- Mitigating design features have been implemented
- Safety tests and inspections are completed
- Operating instructions and procedures are established
- Maintenance instructions and plans are established
- Operator and maintainer training courses have been completed

Hazard owners must carefully consider each hazard and if necessary define the hazards specific actions to ensure the activities have been completed. It should be noted all actions must be completed for a hazard to be closed, and for each action actually taken, the documentary evidence of its closure must be referenced.

Periodically the LOMC-CSC needs to verify implemented hazard mitigations are still viable.

8.8 Reporting of "Unacceptable" Hazards

Hazards evaluated, which affect the safety and security of rail operations, classified as "Unacceptable" (likely to cause death, system loss, or severe environmental damage) are reported by the LOMC-CSC to the DTS CSSO within 4 hours, who will notify the SSOA within 24 hours.

If an "Unacceptable" hazard is identified, the DTS CSSO notifies the Accountable Executive, who determines the appropriate course of action to preserve the safety of the system, such as implementing a speed restriction, shutting down a portion of the system, or shutting down the entire system until appropriate measures are taken.

8.9 Investigations of Hazards

The LOMC-CSC prepares and DTS submits an initial report of the unacceptable hazard within 7 calendar days of the hazard being reported to the SSOA. Updates of the investigation are sent to the SSOA based on 7-day report.

8.10 Annual Internal Review of Hazard Management Plan

Annually DTS conducts a review and audit of the LOMC-CSC Hazard Management Plan. If any changes require revision to this ARSP, DTS sends the updated document, along with any changes, to the SSOA.

8.11 Corrective Action Plans and Compliance Requirements

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	60 of 100



Risk Assessment of hazards utilizing Figures 7, 8, 9, and 10, which are classified as 1A, 1B, 1C, 1D, 2A, 2B, 2C, 3A or 3B will require entry into the HTL and a formal written CAP and entry in the CAP log. All other Risk Index Values will be classified as "Compliance Requirement" and not require a CAP or entry on the CAP log.

8.12 Committees

The rail safety and security committees consist of the Health, Safety, Quality and Environmental Steering Committee (HSQESC), the Emergency & Security Systems Committee (ESSC) and the Safety Systems and Incident & Accident Investigation Committee (SSIAIC). These committees oversee the safety and security of the system during passenger service and are made up of voting members from DTS and LOMCs. These committees are responsible for overseeing the safety and security of the system.

HSQESC: To maintain oversight and provide direction on system safety and security performance, hazards, and risk management.

ESSC: To maintain oversight and provide direction on emergency and security systems to include response performance, planning, and management. Control emergency and security risks and resolve emergency and security problems, share and analyze emergency and security data. Share the outcomes of emergency and security events to include the status of corrective actions and/or mitigations. Liaison with emergency responders.

SSIAIC: To share the outcomes of incident/accident investigations, status of corrective actions and/or mitigations, as well as applicable statistics. Control safety risk better, detect and correct safety problems earlier, share and analyze safety data more effectively, and measure safety performance more carefully. Maintain the Hazard Tracking Log and Open Item List. Identifying mitigations or strategies that may be ineffective, inappropriate, or were not implemented as intended. Update the Transit Agency Rail Safety Plan on an as-needed basis.

8.13 Coordinating with SSOA

The DTS CSSO is the point-of-contact for reporting hazards, submissions of the hazard log, and providing the SSOA with all materials (audio/video files, relevant logs, reports, and /or audits), which may be useful for investigation purposes and any other relevant clarification. The hazard log follows the criteria noted for the hazard log in this plan.

8.14 System Modifications

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	61 of 100



This section describes the procedure used by DTS to ensure safety concerns are addressed in modifications to existing systems, vehicles, and equipment, which do not require formal safety certification, but which may have safety impacts.

This process assures safety is not adversely impacted by modifications to the system (facilities, vehicles, equipment, materials, or procedures).

8.14.1 Modification Process

The modification process consists of:

- Identifying responsibilities of the Project Manager or equivalent in submitting request and documentation
- Ensuring compatibility with existing system;
- Ensuring any potential hazard associated with system modifications of any kind is worked into the Hazard Management Process;
- Ensuring design, as-built documentation, and rules and procedures reflect the considered modification;
- Ensuring LOMC employees are aware of the modification and re-trained if necessary;
- Identifying sign-off procedures showing all affected stakeholders have been involved;
- All analysis for modifications is reviewed and tracked through the HSQESC; and
- Assigning CAP's to ensure all items, which pose a hazard are closed out.

When a modification must be implemented, the following LOMC-CSC areas are involved:

- QA/RAM and Safety: Examines requests for modifications and ensures associated hazards (if any) are properly managed. The Safety Department ensures the LOMC-CSC Training Department updates its material as needed per the updates.
- Engineering: Makes requests for modifications, outlines implementation principles, methods and required testing, reviews test results (where applicable), ensures all affected documentation is coherently updated and ensures modifications are tracked within the configuration management process.
- Operation & Maintenance: Interfaces with other areas for required Work permits, ensures O&M documentation is updated and ensures re-training for O&M staff (if necessary) is performed.

The Change Control Committee in coordination with the DTS CSSO provides a safety and security review and approval of all proposed design changes and ensures all other modifications are reviewed for hazards.

Documen	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	62 of 100



8.14.2 Configuration Management

This Section describes the Configuration Management process DTS and its contractors/subcontractors use during operations.

The LOMC-CSC is responsible for preparing and managing the configuration management plan to be reviewed and accepted by DTS.

8.14.3 Process for Change

Proposed changes to the system, its facilities, operations, or vehicles go through a change control process overseen and accepted by DTS. The LOMC-CSC is responsible for the Configuration Management of the rail systems and facilities, with oversight by the Change Control Committee (CCC). The CCC is chaired by the DTS Senior Contract & Compliance Manager. The DTS CSSO participates in the CCC meetings to ensure safety and security is considered in the decision making process.

Configuration Control ensures the following controls are implemented:

- All changes are uniquely identified and documented.
- An impact analysis is performed for every significant change.
- Only approved changes are implemented.
- All required employee training is conducted before implementation.
- All affected drawings, policies, rules, plans, procedures, and work instructions are updated to support implementation.

The following mechanisms are typically used for change management:

- Finding of Merit/Request for Change(RFC): this is the mechanism by the initiator for evaluating a change or initiating a fix/correction to established baselines and or milestones. A Request for Change Response and a Contractors Preferred Cost are transmitted in response to a RFC.
- Change Control Committee (CCC): this is the mechanism set up with representatives of management responsible for the approval/disapproval of all proposed changes.
- Subject Matter Experts: experts from various disciplines review and comment on any proposed changes to include contributing to an impact analyses and detailed change implementation plans for major changes and present them to the CCC.
- Once the change is approved by the CCC, the individual technical groups will implement the change following their own internal procedures. These procedures include the updating of affected documentation including operation & maintenance manuals, and notifications for all affected departments and agencies.

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	63 of 100



8.14.4 Authority for Change

The CCC typically has the final decision authority over the acceptance of proposed changes. Any change is formalized by proper documentation signed by authorized employees across organizations. Discrepancies or issues with items that cannot be resolved by the CCC are escalated by the DTS Senior Contract & Compliance Manager to the DTS Director of Rapid Transit.

8.15 Drug and Alcohol

This Section highlights the policies and procedures dealing with drug and alcohol abuse anywhere on the rail system property during its operation & maintenance.

8.15.1 Drug and Alcohol Program

The DTS program responsibility and oversight of the Drug and Alcohol program for revenue service rests with the DTS CSSO in accordance with 49 CFR Part 40 and Part 655. The City's Drug and Alcohol Policy is applicable to DTS rail employees and its contractors.

8.15.2 LOMC-CSC Drug and Alcohol Program

The LOMC-CSC HR department has the overall responsibility to ensure the implementation and effectiveness of the LOMC-CSC Drug and Alcohol program.

LOMC-CSC is committed to maintaining a drug-free workplace to promote both the quality of its services and the safety of its employees, customers and the public. LOMC-CSC is responsible for establishing drug and alcohol policies and procedures to be reviewed and accepted by DTS.

The LOMC-CSC Drug and Alcohol policy states LOMC-CSC will:

- Prohibit the unlawful manufacture, distribution, dispensing, possession, or use of controlled substances;
- Ensure employees are not impaired in their ability to perform assigned duties in a safe, productive, and healthy manner;
- Create a workplace environment free from the adverse effects of drug and alcohol abuse or misuse; and
- Encourage employees to seek professional assistance when substance abuse adversely affects their ability to perform their assigned duties.

Each employee will be provided a signed copy of the adopted policy.

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	64 of 100



All covered employees are required to submit to drug and alcohol tests as a condition of employment in accordance with 49 CFR Part 655.

All FTA drug and alcohol testing is conducted in accordance with 49 CFR Part 40, as amended. Circumstances for testing includes:

- Pre-Employment Testing
- Reasonable Suspicion Testing
- Post-Accident Testing
- Random Testing

DTS will review, approve and annually audit the LOMC-CSC Drug and Alcohol Program and its procedures during operations. The City and County of Honolulu Department of Human Resources (DHR) is responsible for the administration, review, and update of the LOMC-CSC Substance Drug & Alcohol Procedure.

8.15.3 Over the Counter/Prescription Drugs & Fatigue Awareness

LOMC-CSC is responsible for conducting over the counter/prescription drug and fatigue awareness training for all safety sensitive employees.

8.15.4 Audits of Outside Agencies Responsible for Drug and Alcohol Testing

DTS is responsible for annual audits of all outside agencies, which conduct drug and alcohol tests for the LOMC. The audits follow the guidelines of FTA's Drug and Alcohol Program.

9.0 COMPONENT 3 – SAFETY ASSURANCE

The Safety Assurance component assures that mitigations are implemented, adhered to, appropriate, effective and sufficient in addressing the potential consequences of identified hazards. Mitigations developed under the Safety Risk Management process are "handed-off" to Safety Assurance analysts reviewing the data to determine if, (1) the mitigations are effective, and to (2) ensure no new risks have been introduced through implementation of the mitigations. Safety Assurance also ensures SMS is effectively meeting DTS' performance targets. DTS ensure its safety objectives are met through the collection and analysis of safety data, including the tracking of safety risk mitigations.

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	65 of 100



The HSQESC reviews and reassess safety data outcomes on a monthly basis to advise safety performance metrics and key performance indicators for continuous improvement. Refer to Section 4.7.3 for the DTS' performance targets.

DTS implements its Safety Assurance process through the active monitoring of operations, safety reporting systems, routine workplace observations, inspections, audits, and other activities, designed to support safety oversight and performance monitoring.

LOMC-CSC, with DTS oversight, performs the following:

- Safety Data Collection and Analysis: Monitor and measure safety performance monitoring and measurement;
- **Rules Compliance:** Monitor the system for compliance with, and sufficiency of, the agency's procedures for operations and maintenance;
- Accident Investigation Procedures: Conduct investigations of safety events to identify causal factors;
- Internal Audit Plan: DTS will conduct internal safety audits and reviews (Refer to Section 4.10, Internal Safety Reviews, for DTS audit procedure;
- **System Modification:** Monitor operations to identify any procedures and/or work instruction that may be ineffective, inappropriate, or not implemented as intended; and
- **Configuration Management:** Establish a process for identifying and assessing changes, which may introduce new hazards or impact the transit agency's safety performance; ensure all LOMC's are part of this process; ensure all LOMC's are provided SMS training and taught to submit hazards to OCC so the HRTP maintains a single Hazard log.

9.1 Safety Data Acquisition, Collection and Analysis

The analysis of system specific data is used to determine trends and patterns in system operation. Used as part of the hazard management process, data collection and analysis identify hazards before they cause accidents by such techniques as trend analysis. Safety data collection and analysis is a vital component of efforts to improve system safety performance.

The LOMC-CSC has established methodologies for collecting, maintaining, analyzing and distributing safety data to monitor and measure safety performance.

In coordination with LOMC-CSC, DTS identifies all data reporting requirements from LOMCs. Examples of safety data to be collected include:

- Daily unusual occurrence logs
- Operator and supervisor reports
- Maintenance data

Doo	cument	RSP-00001	Revision	Page
File	e Name	RSP-00001 01.00 Agency Rail Safety Plan	0	66 of 100



- Analysis of vehicle and personnel records
- Procurement contracts, collected and analyzed to support improvements in performance and monitor compliance

9.2 Rules Compliance

Operation and maintenance rules are reviewed on a regular basis through established methods to ensure all safety considerations have been made and the process is documented. Additionally, LOMC-CSC employees are evaluated for rules compliance to assess competency. The LOMC-CSC is responsible for monitoring the system for compliance. The Rules Compliance Evaluation Plan is reviewed and accepted by DTS. The LOMC-CSC Operations & Maintenance Provider Safety Plan provides direction for safety. This Plan is reviewed and updated annually by the LOMC-CSC, who submits to DTS for review and acceptance. In compliance with the SSOA PSP all LOMC-CSC related procedures are reviewed annually. The LOMC-CSC report back to DTS on audits and Inspections via regular reports, committee meetings and through the Safety Database.

9.2.1 Review of Rules and Procedures

Rules and procedures governing the HRTP are reviewed by the Rules and Procedures Committee (RPC). Rules and procedures are internally reviewed and audited on an annual basis by DTS. The LOMC-CSC Managers conduct rule compliance audits on a weekly basis and report findings to the Head of HSQE. These results are forwarded to the DTS CSSO on a monthly basis and presented to DTS during monthly IACSS meetings.

The LOMC-CSC Head of Operations, as the Rules and Procedures Committee (RPC) chair, is responsible for distribution of new rules and procedures.

9.2.2 Process for Ensuring Rules Compliance

The LOMC-CSC and its contractors conduct rules evaluations on a daily basis. The evaluations include, but are not be limited to:

- Operations Supervisors, Controllers, and Operators
- Engineering and Maintenance Engineers, Supervisors, Technicians, Repairers, and Store Keepers

9.3 Management of Change

Change Management is critical to an effective Safety Assurance program. The primary purpose of change management, system modification, is to ensure changes to the baseline/existing

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	67 of 100



system are reviewed for conformance and to identify and assess potential hazards before making changes to documents, equipment, facilities, and the system. Safety critical documents, facilities, vehicles, equipment, and systems are subject to change management and formal document control procedures. Other examples include, but are not limited to policies, rules, plans, procedures, work instructions, training materials, drawings, and engineering reference information.

These documents are subject to review or revision as a result of (not exclusive):

- Accident and Incidents procedures
- Major service changes
- Accumulation of special instructions, notices and bulletins
- Proposed design changes to facilities, equipment, or vehicles
- Improvements, right of way permit requests, etc.
- Policy changes

DTS chairs the Change Control Committee (CCC).

CCC: To review of all operations and maintenance changes to the HRTP and ensure that the impacts and implications are considered and understood prior to acceptance and implementation of a change. This includes safety, security, and technical matters.

9.4 Continuous Improvements

Continuous improvement is defined by the FTA as a process by which a transit agency examines safety performance to identify safety deficiencies and carry out a plan to address the identified safety deficiencies. Reviews for safety improvements shall be required for all levels of employees to complete. DTS uses the HSQE Steering Committee to review HSEQ, reports, investigations, corrective action plans to include safety improvements. The committee tracks these improvements until they are fully implemented. In addition, the committee can direct reviews to evaluate risks/safety concerns, create and execute Corrective Action Plans to continuously improve safety. The committee activities are also expected to include any improvements and changes related to SMS based on experience and changes in the risk environment.

9.5 Compliance Techniques

LOMC-CSC staff compliance with rules, procedures, and work instructions are evaluated by LOMC-CSC Managers and via audits by the LOMC-CSC Head of HSQE. LOMC-CSC determines the method of evaluation and the Head of HSQE maintains the related database and corrective

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	68 of 100



actions. LOMC-CSC employees who fail to demonstrate competency are required to attend refresher training.

In addition, the DTS conducts an annual Rules and Procedures audit.

9.6 Documentation

DTS Rule compliance audits are documented in reports with checklists with non-compliances (if any) highlighted. Also, corrective actions are reported. All CAPs are reviewed and approved by DTS and the SSOA. Once the review and approval process is completed, the LOMC-CSC adds the CAPs to a CAP log and provide monthly status updates to the DTS CSSO.

9.7 Safety-Related Facility and Equipment Inspections and Audits

The maintenance regime is broadly separated into two types of maintenance: Preventive and Corrective Maintenance. Preventive maintenance is aimed at minimizing the frequency and ideally eliminating the potential occurrence of events, which may affect the overall System Service Availability and Reliability.

Corrective maintenance is aimed at rectifying issues or faults, which currently are affecting the System Service Availability and Reliability.

Safety-related facilities and equipment subject to the maintenance program include, but are not limited to:

- Rolling Stock (including MOW and service vehicles, train exterior, train interior, emergency drive consoles, etc.)
- Traction Power Sub-Stations and Gap Breaker Stations
- 3rd rail and running rail
- Power Distribution Systems
- ROC and Stations and all related equipment (platform screen gates, fare vending equipment and gates, vehicle lifts, cranes, fall arrest systems, etc.)
- Guideway
- Train Control System/ Automatic Train Control (ATC) and Supervisory Control and Data Acquisition (SCADA)
- Communications
- Other office buildings or structures used

9.7.1 Inspections

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	69 of 100



The timing for LOMC-CSC to perform preventive maintenance activities and inspections of facilities is based on Maintenance Plans and OEM specifications. The Maintenance Management Information System (MMIS) automatically create appropriate checklists. All maintenance actions and system data are recorded in the MMIS. This enables monitoring of the reliability, availability, maintainability, and security of the system and sub-system equipment.

The LOMC-CSC informs the DTS CSSO of any hazardous conditions identified during maintenance activities and inspections. Identified hazardous conditions are entered into the hazard resolution process and reported to SSOA by the DTS CSSO, as appropriate (refer to the SSOA Rail Transit Safety Oversight Program Standards & Procedures, Revision 6, February 2022, Section 3.4.4 Hazard Investigations and Section 3.4.5 Hazard Tracking Log)

9.7.2 Audits

Periodic audits are conducted to assess the proper implementation of the current maintenance program, as determined by LOMC-CSC in coordination with DTS. In case of non-compliances, temporary workarounds may be necessary until remedial actions are completed. Safety critical systems in a failed or unacceptable condition must be placed on the hazard log until remedial actions are completed.

The DTS CSSO must be advised of proposed temporary workarounds and proposed remedial actions. The DTS CSSO reviews and accepts each proposed workaround and each proposed remedial action.

DTS conducts a review of the LOMC-CSC audit program on an annual basis as described in Table 9, Summary of DTS Audits.

9.8 DTS Emergency Management Program

The overall responsibility of the DTS emergency management program is overseen by the Manager Emergency & Security Systems. In the event of an emergency, the Manager Emergency & Security Systems serves in the following capacity:

- Assists with the coordination with the LOMC-CSC Head of HSQE, Joint Traffic Management Center, Honolulu Department of Emergency Management, Honolulu Police Department, Honolulu Fire Department and Emergency Medical Services, as needed.
- Interfaces with the Honolulu Department of Emergency Management to relay city-level emergency communications to the rail system.

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	70 of 100



- Inform the Director, Director of Rapid Transit and the CSSO of updates to emergency management activities and conditions.
- Manages Level 2 security services contract.

The following sections provide further details on how the City's Comprehensive Emergency Management Plan and the LOMC-CSC Emergency Management Plan provides emergency preparedness and management for the rail system

9.8.1 Comprehensive Emergency Management Plan

The City and County of Honolulu maintains a Comprehensive Emergency Management Plan (CEMP). The City's plan includes procedures for natural as well as manmade disasters such as hurricanes, tsunamis, earthquakes, pandemics, terrorist attacks, bomb threats, etc. The plan also identifies essential employees and lists the responsibilities and obligations for each. The DTS Manager Emergency & Security Systems is responsible for assisting with the coordination of drills and simulations, which test the CEMP, with the LOMC-CSC Head of HSQE.

The LOMC-CSC is responsible for coordinating and planning emergency response with external agencies such as the Honolulu Fire Department, the Honolulu Police Department, Honolulu Emergency Medical Services, and the Honolulu Department of Emergency Management in coordination with DTS.

9.8.2 Rail System Emergency Management Plan

The LOMC-CSC Emergency Management Plan (EMP) includes emergency management of all incidents or accidents on or affecting rail system infrastructure or premises. The LOMC-EMP is intended to prevent and mitigate, prepare for, respond to, and recover from emergencies. These activities are aligned to but separate from crisis management activities. All management, employees, contractors, and other individuals working for or on LOMC-CSC controlled infrastructure shall comply with the LOMC-CSC EMP and procedures to ensure emergencies are managed uniformly, appropriately and swiftly while minimizing the impact of the emergency to the greatest extent possible.

LOMC-CSC is committed to the environment, health and safety of its employees, contractors, customers, the public, and all who are affected by its operations. Implementation of sound emergency management procedures and principles are fundamental to achieving this commitment.

The LOMC-CSC EMP defines the strategic framework and references the standard processes for managing responses to operational emergencies.

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	71 of 100



The key elements to emergency management are:

- Prevention and mitigation (identifying, assessing, and managing risk),
- Emergency preparedness (preparing plans, training, setting up communication networks, identifying roles and responsibilities, call out rosters, exercise and drills),
- Emergency response (systematic, uniform and organized approach to responding to an emergency, including allocation of resources and external agency interaction, where applicable), and
- Recovery and service restoration (getting the business back to normal, post incident review, lessons learned, returning to normal operations).

9.9 Procurement

Each LOMC is responsible for establishing procurement procedures to be reviewed and accepted by the DTS CSSO.

This Section provides an overview of the measures, controls, and assurances in place to ensure safety principles and requirements are included in the LOMC procurement process.

9.9.1 Program Responsibility

Procurement of materials, products, systems and services for the rail system in compliance with safety principles and requirements is the responsibility of each LOMC, with DTS oversight, to support the procurement process.

9.9.2 Safety-Related Procurement Process and Procedures

As a part of the LOMC-CSC procurement process, Contract Documents issued to Contractors contain basic safety principles and requirements. This is in addition to functional, performance and other requirements, which apply to various materials, products, systems and services.

Qualified Contractors' proposed solutions are evaluated for compliance with safety principles and safety requirements prior to award of contractors.

The procurement controls of spare and replacement parts and O&M materials will be in place to ensure:

• Items documented in the Configuration Management and/or MMIS are procured from approved suppliers for replacement and/or repair of failed items.

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	72 of 100



• Consumable materials and supplies, including hazardous materials, are procured from approved Suppliers/Vendors in accordance with applicable specifications and proper documentation.

9.9.3 Coordination with Hazard Management Process

The LOMC-CSC procurement process links to the Hazard Management process through the application of hazard analyses, risk acceptability criteria, and other processes as described elsewhere in this Plan.

The DTS CSSO reviews the relevant procurement packages to ensure the following safety and security requirements are met:

- Safety and security analyses are performed as required.
- Hazardous materials requirements are met including submission of SDS sheets.
- Roadway worker protection requirements are clearly provided within the procurement documents.
- All required employee training is conducted before implementation.
- All affected policies, rules, procedures, and work instructions are updated and implemented.

The procurement process must not relax or waive any safety requirements for materials, products, systems or services without the written approval from DTS. The DTS CSSO is required to review and accept the purchase of all relevant non-stock purchases, including those for a test or trial.

9.10 Accident/Incident Reporting

This section describes the process to be used by DTS and LOMC to conduct accident investigations, and to notify the appropriate external agencies.

9.10.1 Accident/Incident Internal Notification Procedure

All accidents and incidents on DTS rail infrastructure is reported to the LOMC-CSC OCC, and the LOMC-CSC Supervisor ensures the info is recorded in the OCC Log. All LOMC's and other contractors receive these procedures during initial SMS training. The LOMC-CSC leads investigations for all reported events on the HRTP. Incidents brought to the attention of any other control room staff must be reported by them to the LOMC-CSC OCC Supervisor. The

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	73 of 100



LOMC-CSC director on-call notifies the LOMC-CSC Head of HSQE of any accidents and incidents as soon as possible, no longer than 1-hour and ensure the Everbridge emergency notification system has been used to message the info to stakeholders.

The LOMC-CSC Accident and Incident Notification, Reporting and Investigation Procedure is reviewed annually by the LOMC-CSC, and reviewed and accepted by DTS annually.

The DTS audits the LOMC-CSC accident/incident notification and reporting procedure annually.

9.10.2 Accident/Incident/Occurrence External Notification Procedure

Reportable events to NTSB, FTA, and SSOA are reported immediately to the LOMC-CSC Senior On-Call Manager who alerts the LOMC-CSC Head of HSQE.

External notification is accomplished by the DTS CSSO, who informs NTSB, FTA, and SSOA in the cases and timeframes required. Notification can occur via a method as approved by the SSOA.

- <u>Accident (1-hour Response)</u>: LOMC-CSC is responsible for providing the DTS with the information per the accident notification process to include Everbridge (e.g., Reportable Occurrence): 1-hour telephonic notification. The DTS CSSO notifies the NTSB, FTA, and SSOA with a call to the National Response Center (1-800-424-0201). Types of events include:
 - A collision between a rail transit vehicle and another rail transit vehicle.
 - A collision with a person resulting in serious injury or fatality.
 - A collision with an object resulting in serious injury or fatality.
 - A collision that results in substantial property damage (pursuant to NTD definition).
 - o A runaway train.
 - Evacuation due to life safety reasons.
 - A derailment (mainline or yard).
 - Fires resulting in a serious injury or fatality.
- Incident (24-hour Response): LOMC-CSC is responsible for notifying the DTS CSSO of all incidents per the incident notification process: telephonic notification to the DTS CSSO within 12-hours. The DTS CSSO provides notification to SSOA and FTA (NTD) for incidents involving a personal injury, which is not a serious injury or one or more injuries requiring medical transportation away from the event. Types of events include:
 - Evacuation of a train into the right-of-way or onto adjacent track; or customer selfevacuation.
 - Certain low-speed collisions involving a rail transit vehicle which results in a nonserious injury or property damage.

Docum	ent RSP-00001		Revision	Page
File Na	me RSP-00001 01.0	00 Agency Rail Safety Plan	0	74 of 100



- Damage to third rail equipment, which disrupts transit operations.
- Fire, which results in a non-serious injury or property damage.
- A train stopping due to an obstruction in the tracks/hard stops.
- Most hazardous material spills.
- Occurrence: LOMC-CSC is responsible for recording and maintaining occurrence data for near miss events where no personal injuries occurred. The Head of HSQE collects and tracks Occurrence data to reduce the likelihood of recurrence and in compliance with SMS. The DTS CSSO is responsible for providing occurrence data to SSOA and/or FTA when requested. Types of events include:
 - Close Call/Near Misses.
 - Safety rule violations
 - Violations of safety policies
 - Damage to third-rail equipment, which does not disrupt operations
 - Vandalism or theft

9.10.3 Accident/Incident Investigation Procedures

An SSOA must investigate or require an investigation of any accident and is ultimately responsible for the sufficiency and thoroughness of all investigations, whether conducted by the SSOA or DTS. If an SSOA requires DTS to investigate an accident, the SSOA must conduct an independent review of DTS' findings of causation. In any instance in which DTS is conducting its own internal investigation of the accident or incident, the SSOA and DTS must coordinate their investigations in accordance with the SSO program standard and any agreements in effect.

Within a reasonable time, a SSOA must issue a written report on its investigation of an accident or review of DTS' accident investigation in accordance with the SSOA Program Standard. The report must describe the investigation activities; identify the factors, which caused (root causes) or contributed to the accident; and set forth a corrective action plan, as necessary or appropriate. The SSOA must formally adopt the report of an accident/incident and transmit the report back to the DTS CSSO for review and concurrence. If the DTS CSSO does not concur with the SSOA report, the SSOA may allow DTS to submit a written dissent from the report, which may be included in the report, at the discretion of the SSOA.

All personnel and contractors who conduct investigations on behalf of an SSOA must be trained to perform their functions in accordance with the Public Transportation Safety Certification Training Program (PTSCTP). Refresher training is required for all personnel with this certification, which includes courses such as 1) O&M Rulebook class, 2) Roadway Worker Protection class, and 3) SMS course (DTS or LOMC-CSC version).

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	75 of 100



The FTA may conduct an independent investigation of any accident or an independent review of an SSOA's or DTS' findings of causation of an accident.

LOMC-CSC is responsible for conducting accident/incident investigations. The DTS CSSO reviews, accepts, and annually audits the LOMC-CSC accident/incident investigation procedure. In the event there is a conflict of interest, DTS conducts an independent investigation.

9.10.4 Investigation Reports

A preliminary report is completed within 24 hours after each accident/incident. A final accident report, including all root causes and corrective action plans, must be submitted to the DTS CSSO within 21 days of the event, in a format approved by the SSOA. The LOMC-CSC Head of HSQE is responsible for tracking and reporting the implementation of corrective actions with monthly status update reports.

9.10.5 Coordination with SSOA

The DTS CSSO is the primary point of contact to the SSOA for accident/incident issues. All materials (audio/video files and relevant logs), which may be useful for investigation purposes and any other items relevant for clarification shall be provided.

If SSOA designates DTS to lead investigations on its behalf (for incidents meeting and/or exceeding thresholds specified in applicable norms), the LOMC-CSC O&M staff provide a detailed report for review and acceptance by DTS, indicating root causes, and corrective action plans.

9.10.6 National Transit Database (NTD) Reporting Procedures

DTS is responsible for reporting to the FTA's National Transit Database (NTD) per the requirements set forth in Title 49 U.S.C. Section 5335. DTS has an existing agency profile as an Urban Reporter and currently provides NTD reports to the FTA for its non-rail transit services.

LOMC-CSC is responsible for collecting transit-related safety data, as required, and provides monthly reports (stored in the MMIS system) to the DTS Senior Multi Modal Performance Analyst. The DTS Senior Multi Modal Performance Analyst is accountable for the accurate and timely submission of the required monthly and annual NTD reports.

In the event of an incident, which meets a Major Event reportable threshold, LOMC-CSC is required to report to the DTS CSSO within 12 hours. The Senior Multi Modal Analyst will be accountable for the submission of Major Event Reports no later than 30 days after the date of the event.

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	76 of 100



9.10.7 NTD Safety Reports (Rail)

DTS submits transit-related safety data and reportable events, which meet NTD reporting thresholds. The following sections summarize the NTD safety reporting requirements.

9.10.8 Chief Executive Officer Certification (S&S-20)

The DTS Senior Multi Modal Analyst ensures submission of an annual Safety & Security Chief Executive Officer Certification (S&S-20). The S&S-20 serves as DTS' the attestation all the S&S data submitted is accurate for the previous calendar year. The DTS Senior Multi Modal Analyst must ensure submission of the S&S-20 for the previous calendar year by the end of February.

The S&S-20 automatically tallies the number of events, injuries, and fatalities DTS reports across Major Event reporting forms. It also includes the number of events, injuries, and fires on the Non-Major Summary form. It only tallies submitted reports, which have submission dates; reports, which have only been saved (and thus have no submission dates) are not included.

9.10.9 Major Event Report (S&S-40) (Safety Events)

The Major Event Report (S&S-40) captures detailed information on severe S&S events, which occur within a transit environment. DTS is required to complete one S&S-40 per reportable event, regardless of how many thresholds an event meets. The S&S-40 is due no later than 30 days after the date of the event.

A reportable event is one, which meets any NTD reporting threshold which occurs:

- on transit right-of-way or infrastructure (the underlying framework or structure, which support a public transportation system),
- at a transit revenue facility,
- at a maintenance facility or rail yard,
- during a transit-related maintenance activity, or
- Involves a transit revenue vehicle.

Reportable major safety events include, but are not limited to:

- Collisions
- Fires (suppression)
- Derailments (mainline and yard) including non-revenue vehicles

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	77 of 100



- Hazardous Material Spills
- Acts of God
- Other Safety Events (events, which do not fall into any of the other categories, yet meet a reporting threshold *other than* immediate transport for medical attention for one person)

Threshold for automatic reportable major events include:

- Fatality (includes suicide)
- One or more persons <u>immediately transported</u> for medical attention (injury) or serious injury
- Substantial property damage
- Evacuations of a transit facility or vehicle for life safety reasons or to the rail right-ofway, including both transit-directed and self-evacuations

Automatically reportable - no other threshold:

- Reporting of all mainline/yard derailments
- Rail transit vehicle collisions occurring at a grade-crossing
- Rail transit vehicle collisions with an individual (regardless of injury)
- Rail transit vehicle collisions with another revenue or non-revenue rail transit-vehicle
 - o Including maintenance/hi-rail vehicles
- Incidents involving a runaway train

9.10.10 S&S-50: Non-Major Monthly Summary Report

The Non-Major Monthly Summary Report (S&S-50) captures monthly summary information on minor fires and other less severe safety events, which are not reportable as Major Events. DTS only reports the number of occurrences or safety incidents per month and the number of persons immediately transported away from the scene for medical attention due to those occurrences.

DTS is required to submit one S&S-50 each month regardless of whether they have data to report, or if an S&S-40 has been submitted during the month. All events resulting in two or

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	78 of 100



more injuries are reported as a Major Event. The S&S-50 report is due prior to the last day of the following month.

The Non-Major Monthly Summary Report has two event type categories: Other Safety Incidents and Number of Non-Major Fires.

DTS must report the number of Other Safety Incidents, which are <u>not</u> collisions, fires, derailments, acts of God, hazardous material spills, or security events, but do result in a person being immediately transported from the scene for medical treatment, including transport by personal vehicle.

A reportable Other Safety Incident is one, which meets the single injury NTD reporting threshold and occurs

- on transit right-of-way or infrastructure (the underlying framework or structure, which support a public transportation system),
- at a transit revenue facility,
- at a maintenance facility or rail yard,
- during a transit-related maintenance activity, or
- Involves a transit revenue vehicle.

DTS must report the number of non-major fire events, which require suppression, but do not meet a major event reporting threshold, by location.

A reportable non-major fire is one that occurs

- on transit right-of-way or infrastructure,
- at a transit revenue facility,
- at a maintenance facility or rail yard,
- during a transit-related maintenance activity, or
- On or in a transit revenue vehicle.

9.11 Training

The DTS Budget Analyst who is responsible for submitting the NTD reports to the FTA is required to complete the appropriate NTD training for accurate and compliant reporting.

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	79 of 100



9.12 Safety Performance Targets

DTS is required to establish safety performance targets to address the following four categories of safety performance measures as identified in the FTA's National Public Transportation Safety Plan:

- Fatalities: <u>Total number</u> of fatalities reported to NTD and <u>rate per total vehicle revenue</u> <u>mile (VRM).</u>
- Injuries: **Total number** of injuries reported to NTD and **rate per total VRM**.
- Safety Events: **Total number** of safety events reported to NTD and **rate per total VRM.**
- System Reliability: Mean distance between major mechanical failures.
- Transit Workers Assaults Provoked: Total number of Transit Workers who were assaulted without provocation
- Transit Workers Assaulted Unprovoked: Total number of Transit Workers who were assaulted without provocation on the part of the Transit Worker.

DTS has established the following annual safety performance targets based on the safety performance measures established under the National Public Transportation Safety Plan. Aspirational safety performance targets, including zero fatalities, are set for initial operations. The total VRM calculation was based on the LOMC-CSC Operating Plan, which estimates annual VRM at 600,768 miles.

taliti es otal)	Fataliti es (per 100k VRM)	Injurie s (total)	Injurie s (per 100k VRM)	Safet y Event s (total)	Safet y Event s (per 100k VRM)	System Reliability (VRM/failur es)	Transit Worker Assaults (Provoke d) (total)	Transit Workers Assaults (Unprovoke d) (total)
0	0	4	1.03	7	1.80	75,000	0	0

 Table 4. Annual Safety and Security Performance Targets

DTS is also a party to the Oahu Metropolitan Planning Organization and the DTS CSSO shares the safety performance targets and data with the Oahu Metropolitan Planning Organization and all other local, state and federal organizations upon request. Through the Oahu

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	80 of 100



Metropolitan Planning Organization, DTS coordinates with the SSOA and other applicable agencies to align safety performance targets for the rail system.

9.13 Internal Safety Reviews

DTS SSO conducts internal safety audits and reviews. The audit process described in this section is used to ensure planned and scheduled internal safety reviews are performed to evaluate compliance with the ARSP.

9.13.1 Audit Process

Internal safety audits cover each section of the ARSP over a three-year period. The DTS CSSO and/or MSS take the lead in creating a schedule on which ARSP components and sections are to be covered each year. Checklists are used in the audit, and the CSSO transmits the audit plan along with previous audit corrective action plans to SSOA. DTS notifies the SSOA at least 30 days in advance of each year's internal audits and shares documentation such as checklists used or open corrective actions from previous years.

The DTS notifies the LOMCs to be audited in advance.

9.13.2 Annual Audit Report

DTS submits, by February 1 of each year, an Annual Audit Report to the SSOA, which documents the internal audits conducted in the previous year, including any corrective action plans. The report is accompanied by the Certification Letter from the Accountable Executive.

9.13.3 Audit Reporting

For each audit conducted, audit reporting consists of Audit Findings categorized on severity of the non-compliance. These could be listed as 'Findings', 'Recommendations', and 'Observations'. Each Non-Conformance of a 'Finding' or 'Recommendation' has a Corrective Action Plan (CAP) associated with it. Each Observation has a Preventive Action. The implementation status of these activities are monitored by the CSSO and are documented in a cumulative Internal Audit Findings Tracking Log and submitted to SSOA for approval.

9.13.4 Summary of Internal Audits

A summary of all internal audits DTS is responsible for to promote safety assurance.

	Audit Area	Frequency	Audit Lead	
Document	RSP-00001		Revision	Page
File Name	RSP-00001 01.	00 Agency Rail Safety	Plan 0	81 of 100



Internal Safety Audit	Annually	Chief Safety and Security Officer
Vehicle Maintenance Inspections Audit	Annually	Rolling Stock Compliance Officer
LOMC Risk Management Program	Annually	Manager of Safety Systems
LOMC Hazard Management Plan	Annually	Manager of Safety Systems
LOMC Drug and Alcohol Program	Annually	Chief Safety and Security Officer
LOMC Drug and Alcohol Testing by Outside Agencies	Annually	Chief Safety and Security Officer
LOMC Audit Program	Annually	Manager of Safety Systems
LOMC Rules and Procedures	Annually	Operations Compliance Officer
LOMC Accident/Incident Notification, Reporting and Investigation Procedure	Annually	Manager of Safety Systems
LOMC Hazardous Materials Program	Annually	Manager of Safety Systems

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	82 of 100



DTS Audit Schedule

YEAR 1 (2023, 2026, 2029)

Emergency Management

System Modification, Procurement, Materials Management, Management of Change

ADA, Drug and Alcohol Program

Accident/Incident Investigation Plan

Security Administration

Year 2 (2024, 2027, 2030)
Fare Collection
Facilities Maintenance
Infrastructure Maintenance
Security Data , Investigations, Training

Year 3 (2025, 2028, 2031)	
Vehicle Maintenance (Rolling stock, support vehicles)	
Operations (Operators, Supervisors, OCC, Training)	
Training	
Hazardous Materials and Hazard Management	

200	Document	RSP-00001	Revision	Page
10000	File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	83 of 100



Rules Compliance

Security Risk Assessments and Audits

Security Plan

Audit	Year 1	Year 2	Year 3
System Security	x		
System Description	x		
System Security Roles and Responsibilities			
Personal Security of Passengers and employee		x	
Division of Security responsibilities between contractors and Law Enforcement, SSP Roles and responsibilities		x	x
Required Tasks for goals and objectives			x
Security Data Collection and Analysis			x
Exercises and evaluations	X		
Security Training and PPW		x	
Internal Security Audit			x
TVA identification and resolution		x	
SSP annual review and update/Control and review/Management of SSP	x		

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	84 of 100



10.0 COMPONENT 4 – SAFETY PROMOTION

Safety Promotion provides visibility of executive management's commitment to safety and fosters improved safety performance by increasing safety awareness through safety communication and training. Through communication of lessons learned and broader safety information, employees and contractors are made aware of safety priorities and safety concerns at both the organizational level and as they relate to their own duties and responsibilities.

LOMCs and all subcontractors establish and perform the following:

- Comprehensive Safety Training Program Comprehensive safety training program for all employees and contractors directly responsible for safety.
- Safety Communication Approach for communicating safety performance throughout the organization.

10.1 Training and Qualification

One of the key elements of safety promotion is to implement an effective training program which ensures staff are best prepared to safely operate and maintain the system. The process of building and maintaining up-to-date training programs is based on:

- Identifying required competencies
- Training material requirements
- Testing Requirements
- Evaluation of performed training (passing level, satisfaction etc.)
- Re-training requirements
- Documentation
- Requirements for certifications.

LOMC-CSC is responsible for preparing a comprehensive training and qualification program plan. DTS must review and accept the training plan, procedures, and work instructions. All individuals trained may request copies of their own training records.

LOMC-CSC develops and maintains the basic training programs for operation and maintenance employees. The training program includes both an initial training program for new employees, and an annual re-training program to maintain competency of staff on revised procedures.

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	85 of 100



LOMC-CSC determines the necessary passing scores and requirements for personnel in the various positions to maintain their certifications, along with the requirements of the trainers. Training materials are reviewed by the HSQESC with documents maintained through the configuration management system.

10.1.1 LOMC Employee Safety

New employees will receive basic health and safety training prior to receiving the in-depth system specific training courses developed in partnership between LOMC-CSC and the system suppliers applicable to the particular job function.

10.1.2 Third Party Contractor Safety

LOMC-CSC provides familiarization training for outside contractors, DTS and to the City's fire, safety, and security personnel and others entering the system. Roadway Worker Protection Training must be given to all contractors' personnel prior to working on or around the right-of-way.

10.1.3 Record Keeping

During the entire lifecycle of the system all information related to training is be stored and managed by the LOMC-CSC. The Training and Competency Manager is responsible for the development and updating of safety related training courses, other courses, training materials and examination material and records. Such records are made available for DTS to audit when requested.

10.1.4 Compliance with Training Requirement

A testing program has been implemented by LOMC-CSC to personnel for proficiency within their job classification. Training is completed via written and practical tests to assess a trainee's competence and capabilities and will include written cases or scenarios. Assessment forms a primary basis for the establishment of qualifications and certification of trainees. Personnel must pass the testing program appropriate to their positions prior to assuming those positions.

10.1.5 Testing of Operations & Maintenance Personnel

LOMC-CSC personnel are given operational readiness tests to verify their knowledge of safetycritical responsibilities and proper failure management responses, including spot checks, audits, or programmed training. The results of each test are quantified, and a test score is recorded and entered in the employee's training record. Where tests indicate a lack of proficiency on the

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	86 of 100



part of the person tested, the person is provided with additional training and instruction. Such records are made available for DTS to audit when requested.

10.1.6 ARSP System Safety Implementation Training Requirements

DTS and LOMC-CSC staff responsible for the implementation of the ARSP have special training and certification requirements. DTS is responsible for identifying positions within the organization directly responsible for safety oversight. Specifically, staff responsible for the implementation of the ARSP shall meet the requirements of 49 CFR 672, Transit Safety Training. Identified staff are required to complete the following courses:

- One (1) hour course on SMS Awareness
- Two (2) hour courses on Safety Assurance
- Twenty (20) hours on SMS Principles for Transit
- TSSP curriculum (minus Transit System Security (TSS) course) (all required participants credit will be provided if participant has a Course Completion Certificate of previously taken TSSP courses)
- Two hour DTS SMS course
- Two-hour course on De-Escalation
- Two-hour course on Blood borne Pathogens

DTS staff who have primary responsibilities to the ARSP include the Chief Safety & Security Officer, Manager Safety Systems, and the Manager of Emergency & Security Systems. These employees are the key staff required to comply with the training in this section.

10.2 Hazardous Materials Program

This section provides a high-level description of the program, which deals with the use of hazardous materials. This program's purpose is to control the hazards to human health and to control the pollution to the environment (air, water and land) during the storage, handling/use, and disposal of hazardous materials.

LOMCs are responsible for implementing a Hazardous Materials program. DTS is responsible for reviewing, accepting, and conducting annual audits of the programs.

10.2.1 Program Responsibility

LOMCs are responsible for implementing the Hazardous Materials program as it relates to materials purchased, handled, stored, and disposed of.

10.2.2 Hazardous Material Process

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	87 of 100



Hazardous Materials Process consists of:

- Identifying the Hazardous Materials, as classified by the U.S. Environmental Protection Agency and the applicable Hawaii State and Local (Honolulu) Regulations, which are used during the construction, operation & maintenance of the rail system, or stored on the HRTP controlled by the LOMC-CSC.
- Obtaining the Safety Data Sheets on the Hazardous Materials and displaying/locating them at defined places for use by the employees.
- Employee training in:
 - o Identification of the areas where the Hazardous Materials are stored or used
 - o Location and availability of Safety Data Sheets
 - o Safe handling and use of the Hazardous Materials
 - o Required Personal Protective Equipment when using specific hazardous materials
 - Understanding the Hazard Labels on the Hazardous Materials containers
 - Reporting and arranging for cleaning of spills of Hazardous Materials by authorized personnel.
 - Arranging for disposal of Hazardous Materials waste according to approved procedures
 - Notification of appropriate personnel regarding spills and other incidents

10.3 Safety Communications

LOMCs are committed to an environment with open and honest communication, in which employees are encouraged to submit reports relating to safety and hazardous conditions. To support the open communication policy, LOMC-CSC maintains the right-to-know program and unsafe and unhealthy condition-reporting program. In addition, all employees and contractors complete:

- Training on SMS and their role in the hazard management process (e.g., hazard identification and reporting)
- Training on the risk management program including assigning hazard severity and probability
- Emergency numbers on their badges to be able to report something if they see something, or they will call 9-1-1 in case of a real emergency.

LOMC-CSC is responsible for establishing protocols for communicating safety information to all employees throughout the system. DTS uses committees and emails to distribute Safety Communications.

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	88 of 100



10.3.1 Lesson Learned Programs

LOMC-CSC established a Lessons Learned Program, which is reviewed and approved by DTS. The lessons learned include creating and maintaining a list of lessons learned, which has significant findings, recommendations, and new insights realized. LOMC-CSC in coordination with DTS evaluates the Lessons Learned Program to identify ad-hoc and as-needed training or familiarization programs to ensure lessons learned are used for continuous improvement. Information for the Lessons Learned come from hazard reporting, QR code submissions, Accident Incident Investigations and audits/inspections. Lessons Learned are evaluated and communicated through the Incident and Accident Investigation Committee (Safety Systems). The LOMC-CSC uses Safety Bulletins to transmit this information to employees, subcontractors and DTS.

10.4 CAP Procedures

10.4.1 CAP Program Requirements

DTS will ensure the LOMC-CSC develops implements, and maintains a written CAP Program which is compliant with this section and the HDOT PSP. The CAP procedures shall include:

A description of the individuals, departments, and external agencies (to include SSOA, FTA, and NTSB) which have roles and responsibilities for the identification of the need for a CAP as well as CAP development, implementation, monitoring/tracking, and verification.

A description of the events and/or ongoing program activities which trigger the development of a CAP, including the following minimum requirements:

Internal Safety and Security Audit Program

CAPs are developed when findings of non-compliance or partial compliance are identified from internal safety and security audit final reports.

Hazards Investigations

CAPs are developed to correct those elements or activities identified as deficient as a result of hazard investigations. In addition, the SSOA may, during the course of an investigation, identify

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	89 of 100



corrective actions to avoid or minimize the reoccurrence of the unsafe condition or address a related, systemic problem.

Formal hazard analyses (Preliminary Hazard Analysis, Failure Mode and Effects Analysis, Operations Hazard Analysis, Fault Tree Analysis

CAPs are developed to address findings and recommendations from formal hazard analyses (Preliminary Hazard Analysis, Failure Mode and Effects Analysis, Operations Hazard Analysis, Fault Tree Analysis).

Event Investigations

CAPs are developed when the results of the event investigations identify causal or contributing factors which can be minimized, controlled, or corrected such that the identical or similar situations will not reoccur ("reactive").

NTSB Investigations

CAPs are developed based on the findings and recommendations included in NTSB final accident reports, following review of the report by the SSOA and the DTS CSSO.

Three-Year On-Site Safety and Security Audits

CAPs are developed for deficiencies and areas of concern resulting from a SSOA Three-Year On-Site Safety and Security Audits.

Emergency Drills/Exercises

CAPs are developed to address deficiencies or areas of improvement identified in After-Action Reports/Improvement Plans following emergency drills and exercises. Such exercises may include Tabletop Exercises, Functional Drills, and Full-Scale Exercises.

Other

CAPs are developed when the FTA and/or the SSOA's various oversight activities indicate the opportunity to intervene to address an identified systemic problem or other concern/deficiency before it can manifest as a reportable event. CAPs shall be developed by the LMOC-CSC with

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	90 of 100



review and approval by the DTS CSSO, or required by the SSOA in order to manage gaps or trends in safety performance identified using the SMS performance management process.

10.4.2 CAP Log requirements

Each CAP will require the following:

A description of what the CAP will identify, including the minimum requirements outlined in this section.

A description of the CAP internal and external notification process, including coordination with the DTS CSSO and the SSOA.

A description of the CAP internal and external review and approval process, including coordination with the DTS CSSO and the SSOA.

The plan shall describe the process the DTS CSSO will follow to resolve disagreements with the SSOA regarding CAP development, approval, implementation, monitoring, or tracking.

A description of the CAP monitoring and tracking process, including a sample CAP Tracking Log.

A description of the process to review and update the CAP Program, as required, during the engineering and construction phase of the project.

If the DTS CSSO delegates CAP-related roles and responsibilities to a LOMC, then the following shall be included:

A description of the roles and responsibilities of the delegated duties and responsibilities to the LOMC, including an organizational chart;

A description of the authorization to specific LOMC's to make notifications, to create reports, to submit corrective actions, and to speak on behalf of DTS on safety and security issues; and

An identification of specific individual(s) within the LOMC with overarching responsibility for the delivery of contractor services and authority to resolve issues, such as non-responsiveness to SSOA-identified safety or security findings or concerns.

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	91 of 100



In all cases where a description of a process is required for inclusion in the CAP procedures, the DTS CSSO is required to develop and implement the process or procedure in order to comply with the requirement.

10.4.3 SSOA Review CAP Program

In carrying out its oversight responsibilities under 49 CFR Part 674.29, the SSOA will receive, review, and approve in writing this DTS ARSP. The CAP procedures in the ARSP are in compliance with the CAP-related requirements specified in the PTASP Checklist, Section 3.5 CAP program, and the HDOT PSP.

10.5 CAP Development Requirements

10.5.1 CAP General Requirements

In any instance in which the LOMC-CSC must develop and carry out a CAP, the DTS CSSO shall review and approve prior to submittal to the SSOA for subsequent review and approval. The LMOC shall not perform work on any CAP prior to review/approval from the DTS CSSO and the SSOA. There is an exception for immediate or emergency corrective actions which must be taken to ensure immediate safety, provided DTS provides the SSOA with timely notification and the SSOA provides subsequent review and approval. (For purposes of compliance with the 49 CFR Part 674.37(a) requirement, notification by 5:00 PM on the following business day shall constitute "timely notification" of the SSOA.)

Each CAP must describe, specifically, the actions the DTS will take to minimize, control, correct, or eliminate the risk and hazards identified by the CAP, the schedule for taking those actions, and the individual(s) responsible for taking those actions.

DTS shall periodically provide CAP updates to the SSOA. The SSOA may monitor the RTA's progress in carrying out the CAP through unannounced, on-site inspections, or any other means the SSOA deems necessary or appropriate.

10.5.2 CAP Notification Requirements

The CAP Program will include a discussion of the notification requirements the SSOA requires; Each CAP proposed by the LOMC will be developed with the intent of addressing the hazard or deficiency identified as a result of an investigation; the hazard management process;

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	92 of 100



emergency drills or exercises; the internal safety and security audits performed by the DTS or the LOMC; or external audits performed by the FTA, the SSOA, or other parties. DTS will ensure each CAP is submitted to the SSOA for review and approval within 30 calendar days after the need for the CAP has been identified by either the DTS, the SSOA, FTA, or the NTSB. Depending on the complexity of the issue requiring corrective action, and at the SSOA's discretion, DTS may be granted additional time to prepare the CAP. In cases where an emergency CAP is deemed necessary and implementation is initiated, the RTA will be required to notify the SSOA by 5:00 PM the following business day to initiate formal review and approval.

10.5.3 DTS Initiated CAPs

All CAPs will require review and approval by the DTS CSSO and subsequently review and approval by the SSOA. The SSOA will notify the DTS CSSO of acceptance or rejection of a CAP within 10 calendar days of receipt a proposed CAP. If the review will take longer than 10 calendar days, the SSOA will notify the DTS CSSO in writing on or before day 10 and provide a revised date for the completion of the review checklist. In the event the SSOA and the DTS CSSO dispute the need, findings, or enforcement of a CAP, the SSOA will allow the DTS CSSO 30 calendar days to submit its case. The SSOA will then issue final direction to the DTS CSSO in writing regarding the CAP.

10.5.4 SSOA Initiated CAPs

In the course of carrying out its oversight responsibilities, if the SSOA determines additional corrective actions are required in response to a safety hazard not properly addressed by DTS through the DTS initiated CAP process, hazard management activities, or accident investigation, the SSOA will notify the DTS CSSO in writing. The notice will identify the SSOA's concerns and direct the DTS CSSO to develop an appropriate CAP. In response, the DTS CSSO is required to prepare a new CAP and submit it to the SSOA for review and approval within 30 calendar days. At the sole discretion of the SSOA, depending upon the complexity of the concern, the 30-day requirement may be extended.

The DTS CSSO is responsible for (1) proposing corrective actions which are attainable and address the SSOA's concerns, or (2) demonstrating to the SSOA a CAP is not necessary because system safety or security is not compromised. If the SSOA rescinds its decision to require a CAP, the rescission will be documented in writing. The SSOA has the authority to reconsider its decision at any time.

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	93 of 100



10.5.5 NTSB Findings and Recommendations

NTSB findings and recommendations are transmitted directly to CCH, however, the SSOA may be responsible for a response to NTSB's findings and recommendations in coordination with the DTS CSSO. As a result, the DTS CSSO and the SSOA will review the NTSB findings and recommendations to determine whether or not a CAP should be developed. In coordination with SSOA, the DTS CSSO and the LOMC-CSC will follow these steps to examine each recommendation included within the NTSB written report:

- 1. Confirm or clarify, if necessary, the problem identified in (or associated with) the NTSB recommendation;
- 2. Assess the NTSB-recommended corrective action(s) to evaluate its effectiveness in addressing the identified problem(s), using the appropriate analyses, including formal hazard analyses methods;
- 3. Assess the safety benefits of implementing the NTSB-recommended action and compare it with any similar DTS/LOMC-CSC or SSOA corrective actions. Identify alternative corrective actions with comparable safety or other benefits, if appropriate;
- 4. Determine, based on the analysis of the recommendation and existing/alternative corrective actions, if the DTS/LOMC-CSC will adopt the NTSB corrective action and/or additional corrective actions;
- 5. If the DTS CSSO, LOMC-CSC, and SSOA decide a CAP is necessary, the LOMC-CSC will develop and document appropriate CAPs as required, and in accordance with the CAP review and approval process outlined in this section and submit it to the DTS CSSO for review and approval within 30 days.
- 6. The DTS CSSO will submit the documentation and the analyses performed under this subsection and submit the analyses package to the SSOA for review and approval within an agreed-upon timeframe following the receipt of the NTSB report;
- 7. If the DTS CSSO/LOMC-CSSO elect not to adopt a particular NTSB recommendation and its corresponding corrective action, the SSOA may require the DTS CSSO to prepare a written justification and risk assessment in support of the preferred action of DTS.

The SSOA will follow a similar process as described above for those NTSB recommendations applicable to the SSOA.

10.5.6 CAP Review and Approval Process

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	94 of 100



The SSOA will notify the DTS CSSO of its approval or disapproval of a CAP within 10 calendar days of receipt of a CAP. If the CAP review will take longer than 10 calendar days, the SSOA will notify the DTS CSSO in writing on or before tenth and provide a revised date for the completion of the review checklist. In the event the SSOA does not approve a CAP, the SSOA will state its reasons in writing and recommend revisions. In these instances, the DTS CSSO will submit a revised CAP to the SSOA within 30 calendar days following the disapproval.

10.5.7 CAP Issue Resolution Process

Safety and security issues of various severities necessitating the development of a CAP may arise at any stage of the rail system lifecycle, including engineering, construction and testing as well as operations and maintenance. It is important for the SSOA and the DTS SSO staff to communicate and resolve these issues in order to reach an agreement on corrective actions necessary to ensure a safe, secure, and resilient rail system. The CAP issue resolution process extends to disputes regarding the overall necessity of a CAP, the appropriateness of the CAP itself relative to the identified hazard, and implementation of the agreed-upon CAP.

If the DTS CSSO disagrees with the rationale for the SSOA's disapproval of a CAP and recommended revisions, the SSOA and the DTS CSSO will attempt to resolve issues associated with CAPs at their level and appropriate with the urgency and severity of the issue as soon as possible. If the SSOA and the DTS CSSO are unable to resolve the disagreement in a timely manner, they will jointly bring the issue to the attention of the Accountable Executive.

If the Accountable Executive and the SSOA are unable to resolve the disagreement within a time period consistent with the urgency and severity of the issue, the Accountable Executive and the SSOA will jointly bring the issue to the attention of the HDOT Director of Transportation. The HDOT Director of Transportation has ultimate authority over the SSO Program, including CAPs. It is within their discretion to attempt to resolve safety and/or security issues with the Accountable Executive and Director of Rapid Transit.

The SSOA will consider the issue resolved when the DTS CSSO submits written notice of resolution, including the agreed-upon CAP developed based on the process described above.

10.6 CAP Monitoring and Tracking

10.6.1 CAP Log

DTS/LOMC-CSC will develop and maintain a CAP Tracking Log identifying all CAPs reviewed and approved by the DTS CSSO and the SSOA, as well as the status of each CAP. The LOMC-CSC will

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	95 of 100



submit the updated CAP log to the DTS CSSO via email on a monthly basis. The DTS CSSO will provide regular updates of the CAP Tracking Log to the SSOA (at a minimum of quarterly). to the SSOA in electronic form via email. Quarterly updates shall summarize the status of all open CAPs and any updates or new verification material since the last submittal. Quarterly submittal deadlines will be coordinated between the DTS CSSO and the SSOA. Quarterly submittals may be subject to change based on holidays or extenuating circumstances, if agreed upon in writing by the DTS CSSO and the SSOA

Log Element CAP ID Number CAP Title Date CAP Opened CAP Source ID	Description The number assigned to the CAP by DTS A brief title describing the nature of the CAP The date the need for the CAP was identified The number assigned to the source (internal audit, accident/incident/occurrence, three-year review findings, etc.) of the CAP
Finding	A brief narrative summary of the finding which led to the CAP – what it is, what evaluation criteria was used, what the area of concern or deficiency is, etc.
CAP Requirements	The description of the corrective action required by DTS to address the finding
Initial Hazard Risk Index	The hazard severity and hazard frequency (or risk index) ratings initially assigned to hazard by DTS
Individual/Department	The individual (name and title) and department assigned
Responsible for CAP Implementation	responsibility for implementation of the CAP
CAP Alternative	If DTS wishes to modify an open action, the proposed alternative must be described in sufficient detail so the SSOA can determine its acceptability as a substitute for the originally approved CAP. If there is disagreement between DTS and SSOA regarding CAP changes, the process described in the HDOT PSP will be implemented to resolve differences
CAP Due Date	The estimated date of completion of the CAP. If DTS identifies an extension for the CAP is required, it will note the change here as well as in the CAP status updates
CAP Status Updates	The periodic updates provided by the responsible individual/department to implement the agreed-upon CAP

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	96 of 100



Table 6. CAP Tracking Log

Element	Description
CAP ID Number	The number assigned to the CAP
CAP Title	Brief title describing the nature of the CAP
Date CAP was opened	The date the need for the CAP was identified
CAP Source ID	The number assigned to the source (internal audit, accident/incident occurrence, triennial audit, etc.
Finding	A brief narrative summary of the finding which led to the CAP; what it is, what evaluation criteria was used, what area the area of concern or deficiency is, etc.
CAP Requirements	Description of the corrective action required to address the finding
Initial Hazard Risk Index	The hazard severity & hazard frequency (risk index) ratings initially assigned to the to the hazards
Individual/department responsible for CAP implementation	The individual (name/title/phone number) and department assigned responsibility for implementation of the CAP
CAP Alternative	If DTS/LOMC-CSC want to modify an open CAP, the proposed alternative must be described in sufficient detail so the SSOA can determine its

Document	RSP-00001	Revision	Page	
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	97 of 100	



	acceptability as a substitute for the originally approved CAP. If there is disagreement between the DTS CSSO and the SSOA regarding CAP changes, the process described in section 6.5.1 will be implemented to resolve the issue.
CAP Due Date	The estimated completion date of the CAP. If the DTS CSSO/LOMC-CSC determine an extension for the CAP is required, it will note the changed date in this section and in the CAP status update section.
CAP Status Updates	The periodic updates provided by the responsible individual/department to the DTS CSSO to implement the agreed upon CAP+
Issues preventing resolution	Issues which prevent the timely and adequate resolution to the CAP. This shall be updated in cases where a CAP due date extension is requested
CAP Verification	For CAPs closed since the last submittal, the log must indicate when and how the implementation was verified
Post-Mitigation Hazard Risk Index	The hazard severity and hazard frequency (or risk index) ratings after implementation of the CAP

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	98 of 100



Status	The status of the CAP. Status may be designated as pending, open, in progress, or closed.	
CAP completion date	The actual completion date for the identified CAP	

Document	RSP-00001	Revision	Page
File Name	RSP-00001 01.00 Agency Rail Safety Plan	0	99 of 100