Metrolinx
Training Plan: Product Description

MX-SEA-PD-129

Revision 00

Date: April 2023

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Amendment Record

Revision	Date (DD/MM/YYYY)	Description of changes

Preface

This is the first edition of the Metrolinx Training Plan Product Description (MX-SEA-PD-129). It forms part of a suite of guidance documents that describe the procedures to be followed to comply with Metrolinx's Reliability, Availability, Maintainability and Safety (RAMS) requirements.

The purpose of this document is to describe the Plan that defines the training required for the staff impacted by the project. Project proponents may need to apply the process when they are undertaking a technical change to the railway system or modifying a maintenance regime or undertaking an operational change to the railway system.

Suggestions for revision or improvements can be sent to the Metrolinx Systems Engineering Assurance office at Engineering.Assurance@metrolinx.com. The Director of the Systems Engineering Assurance office authorizes the changes. Include a description of the proposed change, background of the application and any other useful rationale or justification. Be sure to include your name, company affiliation (if applicable), e-mail address, and phone number.

April 2023

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Documents

Table 1 Supporting Documents

Document Number	Document Title	Relation
BS EN 50126-1:2017	Railway Applications – The Specification and Demonstration of Reliability, Availability, Maintainability and Safety (RAMS) (PHASE 1: Adoption of European Standard EN 50126-1:2017)	Parent Standard
ISO 9001:2015	Quality management systems — Requirements	Supporting Standard
MX-SEA-STD-100	RAMS Process Standard	Related Standard
MX-SEA-GDC-129	Training Plan Guidance	Guidance
MX-SEA-TPL-129	Training Plan Template	Template
MX-SEA-PD-144	Training Procedure Product Description	Product Description
MXSD-SSA-L1-STD-0001	Railway Risk Assessment Standard	Supporting Standard
MX-SEA-TOR-001	Metrolinx System Review Panel (SRP) Terms of Reference (ToR)	Review Panel ToR
April 5, 2023	Metrolinx Safety Certification Committee (SSC) Terms of Reference (ToR)	Certification Committee ToR

Acronyms and Abbreviations

Table 2 Acronyms & Abbreviations

Abbreviation	**Full Name**
CTC	Consent To Construct
CTO	Consent To Operate
ISA	Independent Safety Assessor
RACI	Responsible, Accountable, Consulted and Informed
RAM	Reliability, Availability and Maintainability
RAMS	Reliability Availability Maintainability and Safety
SCC	Safety Certification Committee
SRP	System Review Panel

Definitions

Table 3 Definitions

Term	Definition	Source
Asset owner	Groups and individuals that are responsible for asset ownership, asset maintenance, inventory management, document control, asset handover and reliability engineering	MX-ALM-STD-001
Availability	Ability of an item to be in a state to perform a required function under given conditions at a given instant of time or over a given time interval, assuming that the required external resources are provided.	BS EN 50126:2017
Maintainability	Ability to be retained in, or restored to, a state to perform as required, under given conditions of use and maintenance.	BS EN 50126:2017
Project Company	The private sector entity which enters into the Project Agreement with Infrastructure Ontario and Lands Corporation and Metrolinx to design, build and where applicable, finance, operate or maintain a Project. The special-purpose entity which has entered into a Project Agreement with the Contracting Authority.	CKH-QMA-FRM-003
Project Manager	Appointed by Metrolinx as its representative and is responsible for the delivery of the Project within the prescribed Schedule and budget. Metrolinx employees fulfilling the role of the Project Manager may also be considered the Cost Centre Manager, if this person is also delegated signing authority in accordance with the Metrolinx Corporate Administrative Manual, Administrative Management, Approval Authorization Controls and Designations. It is noted that non-Metrolinx employees fulfilling the role of the Project Manager are not considered Cost Centre Managers. In such cases refer to	CKH-QMA-FRM-003

	approved Project Chart of Accounts for the Program for the designated Cost Centre Manager.	
Reliability	Ability to perform as required, without failure, for a given time interval, under given conditions.	BS EN 50126:2017
Safety Certification Committee	The Safety Certification Committee, under the authority of the Metrolinx Chief Safety Officer, promotes the safety, efficiency and protection of transportation corridors by ensuring appropriate structures, practices and policies are in place for any changes to the rail transportation network. The purpose of the Metrolinx Safety Certification Board is to: (a) ensure that any proposed Significant Change to transportation infrastructure or operations that may affect the safety of the public or personnel or the protection of property or the environment is design, constructed, commissioned and operated safely; (b) provide safety approvals at various stages of a project for the project proponent to be able to proceed to the next stage after having provided appropriate evidence of the management of safety risks; and (c) be accountable to the Audit, Finance, and Risk Management Committee of the Metrolinx Board of Directors that the mandate of the Metrolinx Safety Certification Board is being fulfilled. (d) that the two components of promoting the safety, efficiency and protection of the transportation corridors are addressed. The SCC has the specific mandate related to the duties of the corporation and the regulatory accountability of the Chief Safety Officer. The membership of the committee is comprised of senior executives within the organization.	Metrolinx Safety Certification Board Terms of Reference
System Review Panel	A group include Engineering Directors or delegates, representing each discipline in Engineering & Asset Management, Systems Engineering Assurance, Systems Safety Assurance, and Operations.	N/A

Subsystem	Part of a system, which is itself a system	BS EN 50126:2017
System	Set of interrelated elements considered in a defined context as a whole and separated from their environment	BS EN 50126:2017

1 Training Plan

1.1 Purpose

1.1.1 The Training Plan defines the training measures and training material required to implement the change to the railway and to operate and maintain the railway once the change has been implemented. This includes training and materials for integration and commissioning activities, as well as operations and maintenance staff.

1.1.2 This product is mandatory for any project that undertakes a technical change to the railway system (i.e., introduction of a new subsystem, renewal of an existing subsystem, a modification to an existing subsystem, or introduction of a new or modified maintenance regime) or undertakes an operational change to the railway system.

1.1.3 This product is not applicable for established routine maintenance activities including like-for-like replacement of components.

1.2 Applicability

1.2.1 This product is mandatory for any project that undertakes a technical change to the railway system (i.e., introduction of a new subsystem, renewal of an existing subsystem, a modification to an existing subsystem, or introduction of a new or modified maintenance regime) or undertakes an operational change to the railway system.

1.2.2 This product is not applicable for established routine maintenance activities including like-for-like replacement of components.

1.2.3 This product is considered good practice when developing or modifying any complex system.

1.3 Supporting Material

1.3.1 The Training Plan template is located in MX-SEA-TPL-129.

1.3.2 Guidance on completing the Training Plan is located in MX-SEA-GDC-129.

1.4 Products

1.4.1 The Training Plan is a product of the System Assurance process. Guidance on this process is available via MX-SEA-STD-100.

1.5 Key Responsibilities

1.5.1 The Project Company is responsible for the production of the Training Plan. Preparation of the Commissioning Plan may be delegated; however, the Project Company is responsible for its content and quality.

1.5.2 The System Review Panel (SRP) has delegated authority from the Safety Certification Committee (SCC) and is responsible for endorsing the Training Plan. The System Review

Panel ensures that the Training Plan is compliant with the project requirements, applicable legislation, and national, industry, and Metrolinx standards. The SRP may also identify uncertainties, issues, and assumptions that may arise as the project progresses that should be addressed.

1.5.3 The Project Company is the organization that is responsible for the contracted scope of work at the time of development.

1.5.4 The Project Management may be performed by Metrolinx or may be contracted, for example in a Design/Build, whereby Metrolinx Project Management would ensure contract provisions for Reliability, Availability and Maintainability (RAM) Test Specification are met and would not develop the Training Plan.

1.5.5 Some of the Asset Owner obligations and responsibilities may be transferred through contracting, whereby the contract contains RAM and operating requirements. The Metrolinx Asset Owner would participate in endorsing the Training Plan whereas a contracted party responsible for RAM would develop the Training Plan as directed by the Project Management.

1.5.6 The full Responsible, Accountable, Consulted, and Informed (RACI) information that sets out the interaction between all stakeholders involved in the production and endorsement of the Training Plan is available in MX-SEA-STD-100.

1.6 Competence

1.6.1 The Training Plan shall be completed by personnel with knowledge of safety management and railway training. Additional support may be needed from personnel with expertise of training in the area of the project and Operational and Maintenance personnel.

1.7 Structure

1.7.1 The structure of the Training Plan is described in the Training Plan Guidance document located in MX-SEA-GDC-129.

1.7.2 The document requires the following section titles:

a) Introduction;

b) Project Scope;

c) Training Strategy and Implementation; and

d) Training Procedures

1.8 Contents

1.8.1 The contents of the Training Plan are described in the Training Plan Guidance document located in MX-SEA-GDC-129.

1.8.2 As a minimum, it shall contain the following:

a) Summary of the methodology to identify training needs

b) List of training procedures with a brief description of the content of each module, learning objectives, pre-requisites, training audience, and if the training procedure is associated with a particular activity or being used to mitigate a particular risk.

c) Identify "Train the Trainer" activities and any required Trainer qualifications

d) Identify if a training activity or group of activities fit into a qualification or certification regime

e) Competence management plan for all individuals involved who develop, deliver, or receive training

f) Impact on the number and level of competency of personnel

g) Impact on logistics if processes or procedures are changed

h) Necessary Equipment to support training

i) Description of the training approach developed to detail the activities required to deliver the training. The training approach must have sufficient detail to support the development of detailed training procedures, and assign tasks

j) Logic-tied schedule for the development of training materials, training procedures and delivery of training

k) Roles and responsibilities for delivering and maintaining training, training materials, and managing competence.

l) Describe how Health and Safety content will be managed and incorporated

1.8.3 The update to the Training Procedures shall include the status of the implementation at the different phases.

1.9 Quality Criteria

1.9.1 The Training Plan shall have sufficient detail to describe the training that is needed due to the change required by the project and the plan for implementing the required training. It shall set a clear plan for all actors responsible for training.

1.9.2 The quality management system used shall conform to ISO 9001:2015 rules or equivalent rules accepted by the Metrolinx Project Delivery Team and be appropriate for the system under consideration.

1.10 Document Management

1.10.1 The Training Plan is produced at Phase 6 (Design and Implementation) and reviewed at Phase 8 (Integration) and Phase 10 (Acceptance) as the Training Procedure is developed. The Training Plan is a requirement for Consent to Construct (CTC) Gate progression.

1.10.2 Table 4 provides an overview of the Training Plan document phases.

Document	Phase
Training Plan	6 – Design and Implementation

TABLE 4: DOCUMENT PHASES