Metrolinx
Training Procedure: Product Description

MX-SEA-PD-144

Revision 00

Date: May 2023

Training Procedure: Product Description

MX-SEA-PD-144

Publication Date: May 2023

Amendment Record

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

Preface

This is the first edition of the Metrolinx Training Procedure Product Description (MX-SEA-PD-144). It forms part of a suite of guidance documents that describe the procedures to be followed to comply with Metrolinx Reliability, Availability, Maintainability and Safety (RAMS) requirements.

The purpose of this document is to describe the procedure that defines the training required for the staff who will operate or maintain the railway system after the proposed change has been implemented. 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.

May 2023

Contents

Documents ..... **iv**

Acronyms and Abbreviations ..... **v**

Definitions ..... **vi**

1 Training Procedure **1**

1.1 Purpose 1
1.2 Applicability 1
1.3 Supporting Material 1
1.4 Products 1
1.5 Key Responsibilities 1
1.6 Competence 2
1.7 Structure 2
1.8 Contents 2
1.9 Quality Criteria 3
1.10 Document Management 3

Tables

Table 1 Supporting Documents iv

Table 2 Acronyms and Abbreviations v

Table 3 Definitions vi

Table 4: Document Phases 3

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) Part 1: Generic RAMS Process	Parent Standard
MX-SEA-STD-100	RAMS Process Standard	Related Standard
ISO 9001:2015	Quality management systems — Requirements	Supporting Standard
MX-SEA-PD-129	Training Plan Product Description	Product Description
MXSD-SSA-L1-STD-0001	Railway Risk Assessment Standard	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 and Abbreviations

Acronym	**Full Name**
CTO	Consent To Operate
ISA	Independent Safety Assessor
PDD	Process Description Document
PFD	Process Flow Diagram
RACI	Responsible, Accountable, Consulted and Informed
RAM	Reliability, Availability and Maintainability
RAMS	Reliability Availability Maintainability and Safety
SCC	Safety Certification Committee
SPRB	Safety Performance Review Board
SRAC	Safety-Related Application Condition
SRP	System Review Panel
ToR	Terms of Reference

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 Management	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	Freedom from unacceptable risk that related to human health or to the environment	BS EN 50126:2017
Safety Related Application Condition	Those conditions which need to be met in order for a system to be safely integrated and safely operated	BS EN 50126:2017
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 Procedure

1.1 Purpose

1.1.1 The Training Procedure shall define the purpose of a particular training module required for the staff who will operate or maintain the railway system after the proposed change has been implemented.

1.1.2 The Training Procedure shall describe what competence the trainees will learn at the end of a particular training module.

1.1.3 The procedures shall include all the relevant information required for training of staff who will operate or maintain the railway system and enable compliance with RAMS requirements to be maintained during the operation of the railway system with the proposed change implemented.

1.1.4 The procedures for training shall consider any Safety-related Application Conditions (SRACs) identified during the course of project development. In particular, there may be a need for briefings to provide instructions on temporary conditions.

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 Procedure shall be compiled by the responsible stakeholder.

1.4 Products

1.4.1 The Training Procedure 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 Procedure. Preparation of the Training Procedure 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 Procedure. The System Review Panel ensures that the Training Procedure 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 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 Training Procedure are met and would not develop the Training Procedure.

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

1.6 Competence

1.6.1 The Training Procedure shall be developed by personnel with knowledge of safety management and the design of the system delivered by the project company. 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 Procedure should have the following section titles:

a) Introduction;

b) Project Scope;

c) Roles and Responsibilities;

d) Resources and Competence Required;

e) Training Strategy and Implementation;

f) Training Procedure; and

g) Safety Precautions (if any).

1.8 Contents

1.8.1 The contents of the Training Procedure shall contain the following:

a) the impact of the project;

b) description of the system;

c) learning objectives – what competence are trainees expected to gain from the training;

d) the resources required for training including competence of trainer and trainee and any tools or materials required;

e) training methods such as classroom training, usage of simulator or scenario training, assessments, testing etc.;

f) the procedure to train the staff;

g) consideration of any Safety-related Application Conditions (SRACs) and any needed briefings to provide instructions on temporary and/or permanent conditions; and

h) safety requirements that are addressed through the training module.

1.8.2 Any updates to the Training Procedure from previous versions shall be described to facilitate understanding of the changes to the system.

1.9 Quality Criteria

1.9.1 The Training Procedure shall have sufficient detail to enable understanding of the training that is needed due to the change, a clear procedure for implementing the required training for each stage, and detail of who is responsible for the actions. It shall set a clear procedure 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 Procedure is produced at Phase 7 (manufacture) and reviewed at the Consent to Test Gate following the Training Plan developed in Phase 6 (design and implementation).

1.10.2 The Training Procedure is a requirement for the Consent to Test (CTT) Gate.

1.10.3 Table 4 provides an overview of the Training Procedure document phases.

Document	Phase
Training Procedure	7 - Manufacture – 10 - Acceptance

TABLE 4: DOCUMENT PHASES