



Procedure for Requesting Deviations to Metrolinx Standard Requirements

CKH-ENG-PRC-001

Superseded

Revision 01

Approval Date: 09/07/2020

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Revision	Purpose of Submittal	Date (DD/MM/YYYY)	Comments
00	Approved	23/12/2019	
01	Approved	09/07/2020	Expanded scope to include all standards and included Sponsor's role

Preface

This is the second version of the procedure for requesting deviations to Metrolinx standard requirements. This version:

- introduces MxDeviationRequest@Metrolinx.com, a central email depository that is monitored regularly for all deviation related correspondence;
- expands the use of the Deviation Procedure to all mandatory Mx standards by removing 'technical' from the descriptor;
- adds endorsement by the Sponsor Office for both the Deviation Request and Notice of Deviation;
- revises the requirement for endorsement by the team submitting a deviation request to the VP level;
- requires inclusion of a live, mandatory Safety Risk Assessment unless exempted by the corresponding SME team;
- defines timelines for the Deviation Procedure including escalation process

Metrolinx Capital Projects Group (CPG) Engineering & Asset Management (E&AM) is responsible for developing engineering governance frameworks to support delivery in the assurance of design, safety, integrity, construction, and commissioning of transportation assets for the whole asset lifecycle.

Suggestions for revisions and improvement:

Suggestions for revision(s) or improvement can be sent to Metrolinx Engineering and Asset

Management, Attention; Director Facilities Engineering and Standard Development who will introduce and coordinate the management of the proposed change(s) within Metrolinx. Be sure to include a description of the proposed change(s), complete with appropriate background information and any other useful rationale or justification. Also, be sure to include your name, company affiliation (if applicable), email address, and phone number.

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Documents

TABLE 0-1 SUPPORTING DOCUMENTS

Reference	Title
CKH-ENG-FRM-008	Request for Deviation to Metrolinx Standards Requirements Form
CKH-RISK-PRC-001	Risk Management Procedure
CKH-ENG-FRM-007	Notice of Deviation Form
CKH-ENG-FRM-010	SME Checklist for Notice of Deviation

Acronyms and Abbreviations

TABLE 0-2 ACRONYMS AND ABBREVIATIONS

Acronym or Abbreviation	Definition
CPG	Capital Projects Group
E&AM	Engineering & Asset Management
PDT	Project Delivery Team
SFAIRP	So far as is reasonably practicable
SME	Subject Matter Expert
SRA	Safety Risk Assessment
TSD	Technical Standards Development

Definitions

The following terms and definitions apply in this document:

Metrolinx standard requirements: the standards, plans, processes, procedures, instructions, requirements, and guidance material (in whatever form) published externally or notified by E&AM and other SME divisions at Metrolinx in the exercise of its functions

Competent Person: a person identified or certified within an organization to have required skills and knowledge to perform specified tasks

Deviation: departure from a Metrolinx standard requirement

International Standard: an internationally accepted standard such as those prepared by an internationally recognized standards development organization such as ISO or IEC

Nonconformance: a deviation from a Metrolinx standard requirement that has occurred without prior approval from E&AM or standards owners/appropriate SME teams

Not reasonably practicable: means that the cost of compliance grossly outweighs the risk being managed through the standard requirement and other suitable means of reducing the risk to a tolerable level are available.

Requestor: the party requesting either an approval or review of a deviation from a Metrolinx standard requirement; the requestor is a project-specific, engineering/architectural consultant, design builder, or full lifecycle concession owner

Responsible body: the Metrolinx business unit responsible for the management of the contract to which the deviation or review of nonconformance request relates and is acting in the best interests of Metrolinx

SFAIRP: so far as is reasonably practicable; that which is, or was at a particular time, reasonably able to be done to ensure health and safety, taking into account and weighing up all relevant matters including:

- a) the likelihood of the hazard or the risk concerned occurring;
- b) the degree of harm that might result from the hazard or the risk;
- c) what the person concerned knows, or ought reasonably to know, about the hazard or risk, and ways of eliminating or minimizing the risk;
- d) the availability and suitability of ways to eliminate or minimize the risk; and
- e) after assessing the extent of the risk and the available ways of eliminating or minimizing the risk, the cost associated with available ways of eliminating or minimizing the risk, including whether the cost is grossly disproportionate to the risk.

1. Overview

1.1 Introduction

- 1.1.1 Metrolinx standard requirements include all requirements applicable to Metrolinx projects that consultants and contractors are obligated to adopt when delivering or modifying assets for revenue service. Consultants and contractors providing asset-related services to Metrolinx through contracts are required to comply with all requirements.
- 1.1.2 While it is expected that every effort is made to comply with all requirements, Metrolinx recognizes that it may not be reasonably practicable to comply fully with its requirements at all times. In other instances, better outcomes can be achieved for Metrolinx through noncompliant alternatives even when compliance is reasonably practicable to achieve. These situations require approval to be sought for deviations from Metrolinx requirements to ensure that potential unintended consequences are identified and all risks are understood.

1.2 Purpose

- 1.2.1 The purpose of this document is to specify the process and procedure to obtain concurrence from Metrolinx for a deviation from Metrolinx standard requirements in the following situations:
 - a. When compliance is not reasonably practicable; or
 - b. When an innovative solution that benefits Metrolinx in the larger context of its application beyond the particular instance involved is proposed as an alternative to a compliant solution.
- 1.2.2 In addition to these situations, this document specifies the actions when the correct processes have not been followed; that is, when the deviation has already occurred without approval.

1.3 Scope

- 1.3.1 This document describes the submission process when requesting an approval for a deviation from Metrolinx requirements. It provides details of information that needs to be submitted and the types of notices that are issued following assessment or review of such requests.

1.4 Application

- 1.4.1 The process described in this document applies to deviations from Metrolinx standard requirements that are published and managed by Metrolinx.
- 1.4.2 The requirements in this document apply to the following:
 - a. Consultants and contractors that are required to comply with Metrolinx standard requirements;
 - b. All new Metrolinx Capital Infrastructure projects and contracts where scope includes providing new assets or altering existing assets that are signed or agreed upon contractually after the publication date of this standard; and
 - c. Third parties whose work affects a designated transport corridor or service and are required by a planning instrument to comply with Metrolinx standard requirements.

2. Deviation Process

2.1 Summary of Deviation Process

- 2.1.1 A request submitted for a deviation to a Metrolinx standard requirement shall be made using the *Request for Deviation to Metrolinx Standard Requirements* worksheet. E&AM assesses the request and issues a notice of deviation to the responsible body (where applicable) and to the requestor.

2.2 Early Engagement with E&AM

- 2.2.1 To minimize the possibility of aborting work due to inappropriate, incompatible design selection or noncompliant design, every requestor shall consult with the E&AM deviation process lead who will also engage relevant subject matter experts (SME) at an early stage of development of the deviation request.

2.3 Request for Deviation to Metrolinx Standard Requirement

- 2.3.1 A request for deviation shall be made using the *Request for Deviation to Metrolinx Standard Requirements* worksheet and submitted to E&AM via the responsible body (where applicable) together with all information, signatures and supporting documentation relevant to the request.
- 2.3.2 Within two business days after the Request for Deviation is received, a meeting with TSD, SME, and PDT is required to confirm:
- 1) That an SRA is required, or omitted by exception only, from Asset Class SME team;
 - 2) The stakeholders to be involved in the SRA; and
 - 3) The degree of involvement required from the Safety Division.
 - a. Deviations affecting operational issues require Safety Division participation in the SRA.
 - b. Safety Division to be notified of all other SRAs taking place. Participation in SRA to be determined on a case by case basis.
- 2.3.3 An SRA meeting for all stakeholders identified, shall be organized within three business days following discussions between TSD, SME and PDT. The SRA meeting shall be live with all participants present.
- 2.3.4 The supporting information shall comprise the following:
- 1) Justification of why the requirement is not reasonably practicable to comply with or why the proposed design solution provides equal or better facility and safety with a compliant design solution in the context, which it is proposed. This justification is required even when a proposal is an improvement (such as safety, environment, or economic) to an existing situation but still falls short of meeting the requirement.
 - 2) In order for a deviation to be granted, requests must be submitted in full and shall include a safety risk assessment unless determined otherwise in 2.3.2. If SRA is omitted, the requestor shall provide justification for why it is believed that there is no potential for impact to the safety of the public, personnel, protection of property, or the environment. If it is unclear if

safety may be impacted, further discussion is required with Asset Class SME team and the Safety division.

- 3) An impact assessment prepared by a competent person that demonstrates the residual risk associated with the noncompliance is mitigated to SFAIRP. The impact assessment shall be of a level commensurate with the level of risk. The impact assessment shall identify and assess all risks associated with the asset in its operational state that will be impacted by the deviation. For each risk, its impact from the deviation should be addressed and it should be demonstrated that the risk has been reduced SFAIRP. An overall structured argument shall be presented and supported by evidence that demonstrates that safety will be ensured SFAIRP in implementing the deviation. Where there is a significant level of risk, the risk argument shall be independently verified. E&AM at its discretion can request independent verification. Refer to Capital Projects Group Risk Management Procedure (CKH-RISK-PRC-001) that provides guidance on the expected level of rigor required for program and project risk management. A safety risk assessment must be included with the deviation request if it is believed that there is potential for impact to the safety of the public, personnel, protection of property, or the environment. If it is unclear if safety may be impacted, contact the responsible Asset Class SME who will review and discuss with the Safety division.
- 4) An options report that describes the various options identified, the associated risks and costs, and why the proposed alternative is considered the best option.
- 5) Stakeholder engagement details including identification of all relevant stakeholders and their organizational titles. Acceptance of the proposed deviation by the stakeholder shall be indicated by the stakeholder representative's record of acceptance of the options report included as an addendum to the report.
- 6) Lifecycle cost assessment for the proposed deviation in comparison with the lifecycle costs associated with other compliant options identified.

2.4 Withdrawal of Request for Deviation

- 2.4.1 A deviation request that has been registered by E&AM may be withdrawn by the requestor before E&AM's determination by requesting in writing to MxDeviationRequest@metrolinx.com. E&AM will accept such withdrawal requests of deviation and acknowledge the requestor in response to the request.

2.5 Notice of Deviation

- 2.5.1 E&AM assesses the request for deviation and notifies its decision by issuing a notice of deviation. A request for deviation results in one of the following outcomes of E&AM assessment:
 - 1) Deviation granted
 - 2) Deviation rejected

2.6 Types of Deviations

- 2.6.1 Deviations granted are either time bound or permanent. Time bound deviations are either urgent or temporary.
- 2.6.2 Urgent deviation

- 1) An urgent deviation is a temporary deviation issued in a time-constrained situation where the E&AM agrees in principle to a proposed deviation to avoid possible delays to a project or to the operation of transport services.
- 2) An urgent deviation is valid for a period of up to 10 working days from the date of issue, unless a different length of validity period is agreed with the assessor at the time of granting the urgent deviation. The urgent deviation shall be replaced either by a temporary deviation or by a permanent deviation within that period. The requestor shall apply for a formal deviation as stated in Section 2.2 by submitting the required documentation within the validity period of the urgent deviation, allowing sufficient time for review and determination.
- 3) Situations that justify the request for an urgent deviation usually arise from construction and maintenance activities where latent conditions, unplanned circumstances, or operational needs render the meeting of Metrolinx standard requirements not reasonably practicable. In such situations, the responsible consultant or contractor may request an urgent deviation from the relevant discipline lead SME within Metrolinx. In requesting such deviations, the consultant or contractor shall obtain prior approval of the relevant operations and maintenance authorities for the risk controls to be implemented during the deviation period.
- 4) Urgent deviation requests shall be made directly to the relevant lead SME by emailing details of the deviation being sought. An urgent deviation may be granted by the lead SME and the notice of the urgent deviation shall be in writing.

2.6.3 Temporary deviation

- 1) A temporary deviation is issued in one of the following situations:
 - a. Work is of a temporary nature and full compliance with Metrolinx standard requirements is not reasonably practicable.
 - b. Temporary conditions prevent full compliance but are likely to change to normal in the foreseeable future.
 - c. A nonconformance that has been rejected is allowed to remain until rectified within a given period.
- 2) A temporary deviation has an expiry date and requires one of the following actions:
 - a. Allow to expire (upon meeting the set conditions).
 - b. Renew for a further period (upon request for an extension).
 - c. Replace with a permanent deviation.
 - d. Permanent deviation.

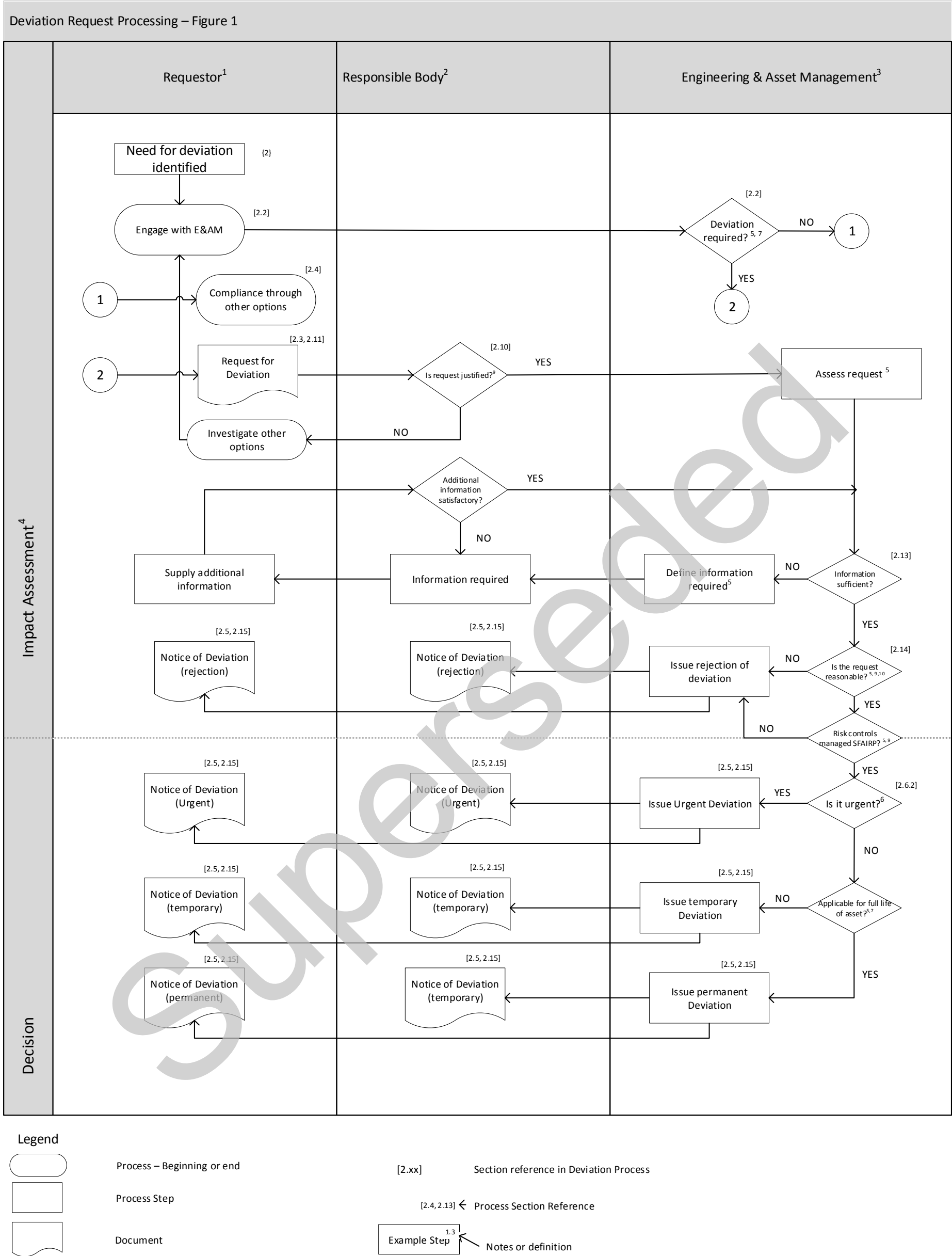
2.6.4 A permanent deviation is issued when the circumstances that cause the deviation to occur may not change over the life of the asset to which the deviation applies. A permanent deviation is valid only for the project detailed in the request form.

2.7 Deviation Process Overview

2.7.1 Figure 2-1 provides an overview of the full deviation process.

Note: Not all process steps are applicable to the urgent deviation request review process.

FIGURE 2-1 Deviation Request Process



2.8 Deviation Request Process Diagram Notes

2.8.1 Definitions:

- 1) Requestor – the party requesting either an approval or review of a deviation to a Metrolinx Standard requirement. The requestor may be the responsible body or a project-specific engineering/architectural consultant, design builder, or full lifecycle concession owner.
- 2) Responsible body – the Metrolinx business unit responsible for the management of the contract to which the deviation or review or non-conformance request relates and is acting in the best interests of Metrolinx.
- 3) Asset Class SME Team(s) – Subject matter experts responsible for Asset class for which deviation is requested.
- 4) Impact Assessment – a formal, evidence-based process that assesses all risk including financial impacts (cost/benefits) and safety-based risks

2.8.2 Responsibilities:

- 1) Asset Class SME Team(s) – are responsible for this action.
- 2) Asset Class Director(s) – are responsible for this action.
- 3) Asset Steward(s) – are responsible for this action.

2.8.3 Notes:

- 1) Note Reserved.
- 2) Exception path requires escalation per normal route, up to and including Sponsor Office if required.
- 3) Decision criteria to be defined.

2.9 Requestor of a Deviation

2.9.1 In project situations including the delivery of maintenance programs, the requestor to a deviation may be one of the following:

- 1) A consultant, contractor, or concessionaire performing the work under a contract.
- 2) Where the requestor is the responsible body, they shall also ensure that all aspects of article 2.8 have been fulfilled via their endorsement.
- 3) A third party including a utility provider carrying out work that affects the Metrolinx assets or operations.

2.10 Endorsement by Responsible Body

2.10.1 An endorsement by the responsible body of a request for deviation to E&AM requirement signifies the following:

- 1) Evidence has been included in the submission that all items listed in Section 2.2 have been fully and adequately investigated and addressed.
- 2) Stakeholder interests have been properly investigated and addressed.

- 3) The proposed deviation and risk controls do not give rise to new risks or outcomes that are unacceptable. The outcomes may include lifecycle cost increases that have been determined to be acceptable by stakeholders.

2.11 Submission of Request for Deviation

- 2.11.1 The *Request for Deviation to Metrolinx Standard Requirements* form shall be used for requesting a deviation. All relevant fields shall be populated, and the form shall be submitted electronically to E&AM via email to MxDeviationRequest@metrolinx.com in an open industry standard format, such as PDF.

2.12 Acknowledgement and Advice of E&AM Response Time

- 2.12.1 Depending on the complexity of issues associated with the request, the time for assessing a request could vary. E&AM acknowledges receipt and communicates the estimated time for assessing the request, within two business days from the date of receipt of request.

2.13 Request for Additional Information

- 2.13.1 E&AM and Asset Class SME assess whether the information that is supplied by the requestor is sufficient for its decision-making.
- 2.13.2 If it is determined that the information provided is not sufficient, E&AM will request additional information. The request for deviation is then put on hold for a period of up to three months from the date that E&AM requested additional information. If the requestor fails to submit the information within that time or within a time subsequently agreed with E&AM, the request for deviation shall be rejected.
- 2.13.3 A revised estimated date for assessing the request for deviation shall be advised by E&AM within five working days of receiving additional information.
- 2.13.4 Any additional or supplementary information requested by E&AM shall bear the reference number issued by E&AM (e.g., DEV-001) and be submitted via the same email address.

2.14 Assessment of the Request for Deviation

- 2.14.1 The request for deviation is assessed by the relevant lead Metrolinx SME. Assessment involves ensuring that the following have been performed:
 - 1) Interfaces for the proposed deviation have been properly identified;
 - 2) Appropriate stakeholders have been identified and consulted;
 - 3) Appropriate risks have been identified and risks transferred;
 - 4) Risk control owners identified, their roles and responsibilities defined, and appropriate communication protocols are in place to inform all affected parties;
 - 5) Lifecycle cost has been assessed;
 - 6) All reasonable alternatives have been considered in proposing an alternative solution; and
 - 7) The proposed deviation is considered in the best interests of Metrolinx over the life of the asset.

- 2.14.2 The assessment is done in order to establish that the requestor has sufficiently demonstrated the following:
- 1) That it is not reasonably practicable to achieve compliance;
 - 2) Sufficient steps, including additional control measures to mitigate the risks associated with the deviation to SFAIRP, have been specified;
 - 3) The residual risk associated with the deviation is tolerable;
 - 4) Sufficient stakeholder consultation has been performed and the stakeholders have generally accepted the alternative proposed solution; and
 - 5) Safety Division has been consulted as required and the subsequent Safety review processes have been implemented as applicable.
- 2.14.3 E&AM grants a deviation when satisfied that the requestor has done everything SFAIRP to ensure safety in operation and that the residual risks associated with the deviation are tolerable. E&AM can recommend additional risk controls where necessary.

2.15 Asset Class SME Team Assessment Notification

- 2.15.1 Asset Class SME Team notifies the outcome of its assessment of the request for deviation by way of notice to the responsible body (where applicable) and to the requestor. The notice is issued on the Notice of Deviation with all supporting evidence including Request compiled as part of a single sign-off package so as to ensure an archival record and audit trail.
- 2.15.2 Following Asset Class SME acceptance of Request, the Notice of Deviation shall be completed within 10 business days, after which it will be escalated to Director level. After an additional 5 business days it will be escalated to VP level.
- 2.15.3 Implementation and management
- 1) Where a Notice of Deviation has been issued, the requestor shall arrange the execution of the work in accordance with the notice. This includes fulfilling any additional conditions or implementing any additional controls imposed by Asset Class SME Team where relevant.
 - 2) The responsible body shall arrange for the conditions of approval to be maintained throughout the life of the system or asset to which the deviation applies.
 - 3) Deviations for projects provide assurance to Metrolinx Configuration Management and Asset Assurance functions, that deviations from Metrolinx requirements are managed. This evidence of deviation shall be presented by the responsible body at asset handover.
 - 4) The assurance evidence shall contain the following:
 - a. notices of deviations granted by Asset Class SME Team for all deviations from Metrolinx requirements; and
 - b. risk controls associated with deviations are implemented and residual risks are managed.