SYDNEY TRAINS SAFETY MANAGEMENT SYSTEM

SYSTEM PROCEDURE 12: ENGINEERING PUBLICATIONS

Purpose

The purpose of this document is to outline the processes by which Sydney Trains Engineering Publications are created, amended, maintained and used.

For further information on the management, review and withdrawal of Engineering Publications please refer to *PR A 00242 Engineering Technical Document Development and Management* published on the Engineering System Integrity Intranet site.

Scope

This document applies to the following processes:

- creation, amendment, maintenance and removal of Engineering Publications; these publications are owned by the Engineering System Integrity division
- use of Engineering Publications
- monitoring and review of Engineering Publications

This document applies to Sydney Trains employees and contractors carrying out engineering and asset management activities for or on behalf of Sydney Trains.

Process flow

Process	Responsibility	Tools & Forms
12.1 Establish and maintain Engineering Publications	Deputy Executive Director Engineering System Integrity Engineering Technical Publications Manager Professional Heads	Engineering standards, engineering specifications, engineering manuals, engineering procedures, engineering instructions and advices
12.2 Make Publications available	Deputy Executive Director Engineering System Integrity Professional Heads Line Managers	
12.3 Use Publications	Deputy Executive Director (Level 3 Managers) - All Directorates. Level 4 ESI Managers Line Managers All ST employees Contractors – designers, constructors, maintenance suppliers.	
12.4 Monitor and review Publications	Deputy Executive Director Engineering System Integrity Engineering Technical Publications Manager Level 4 ESI Managers	

Figure 1 Process flow for Engineering Publications

Process Description

Engineering Publications

The term ‘Engineering Publications’ is used to cover the suite of Sydney Trains documents which provides requirements, parameters, measures and guidelines for governance and administration of engineering/technical control over Sydney Trains' assets. This documentation suite consists of:

- engineering standards
- engineering specifications
- engineering manuals
- engineering procedures
- Engineering Instructions
- Engineering Advices
- Technical Maintenance Plans and Service Schedules.

Refer to Table 1 in Appendix A for the set of Engineering Publications that perform a number of different functions within Sydney Trains.

Engineering Publications facilitate an integrated approach to safety, performance and integrity of the rail network through the implementation of standards and processes for design, construction and maintenance of railway assets. Sydney Trains employees and engaged contractors that are designing, constructing, manufacturing, installing, maintaining and disposing of railway assets must comply with these Engineering Publications.

12.1: Establish and maintain Engineering Publications

The Deputy Executive Director Engineering System Integrity will make sure the development, review and amendment of engineering publications follows a defined consultative process with the following phases:

- identify change request
- apply Safety Change Management process
- consult stakeholders
- assess training needs
- obtain approval and authorisation
- publish document.

12.1: (continued)

Identify change request

Requests for changes to Engineering Publications may arise from:

- business decisions to adopt new technologies
- industry best practice
- new or altered railway assets
- legislation changes or changes to applicable external Standards (e.g. International, National or ASA Standards)
- gaps identified by audits or incident investigations
- changes to the operating environment.

Safety Change Management

The Engineering Technical Publications Manager will refer to SMS-07-SP-3067 Manage Safety Change for guidance on the process to manage changes to engineering publications, including the introduction of new publications.

Consult stakeholders

The Engineering Technical Publications Manager will conduct the consultation process in accordance with SMS-10-SP-3070 Communication and Consultation. The consultation process must take into account both the business and safety impacts of the change and appropriate stakeholders (internal and external) must be consulted as required by the safety change management process.

Assess training needs

The owner of the technical content (e.g. a Professional Head) will undertake a Training Needs Analysis to determine the training impact of the proposed change.

When the training needs are understood, the owner of the technical content will provide applicable information to the TfNSW Learning and Development for implementation.

TfNSW Learning and Development will coordinate the resources to allow for workers to be trained to safely perform their role (refer to SMS-11-SP-3011).

Obtain approval and authorisation

Formal approval of technical content by the owner of the publication is required. Authorisation by the Engineering Technical Publications Manager to issue the revised publication for use is also required.

12.2: Make Publications available

Deputy Executive Director Engineering System Integrity is responsible for making sure the Engineering Publications are available for workers and contractors to access.

Engineering Publications shall be published on the Sydney Trains intranet so that current, up-to-date material is available to workers and contractors applying Sydney Trains Engineering Publications.

Line Managers shall make sure workers and contractors are instructed about changes to Engineering Publications.

Note

Electronic versions of documents downloaded and locally printed are considered outside Sydney Trains' control process and are therefore ‘uncontrolled copies’. Uncontrolled copies are not recognised as valid for use by Sydney Trains.

12.3: Use Publications

Engineering Publications apply across all phases of the engineering process and asset lifecycle management (refer SMS-12-SP-3064 Asset Lifecycle Management).

Deputy Executive Director (Level 3 Managers) of all Directorates will make sure all Sydney Trains workers and contractors (e.g. designers and maintenance suppliers) involved in designing, constructing, manufacturing, supplying, installing, operating, maintaining, modifying and disposing of assets under the control of Sydney Trains apply appropriate engineering standards to their work whether they be Sydney Trains or Industry Standards (i.e. ASA).

Line Managers will make sure Sydney Trains workers and contractors are:

- aware of and trained in the applicable Engineering Publications
- informed of changes to Engineering Publications, where required.

12.4: Monitor and review Publications

The Deputy Executive Director Engineering System Integrity will make sure Engineering Publications are created, amended, maintained and removed as necessary.

The Engineering Technical Publications Manager or Level 4 ESI Managers will initiate a review of Engineering Publications in the following circumstances:

- when there is an identified need for change (refer to section 12.1)
- at least once every 3 years.

12.4: (continued)

The Engineering Technical Publications Manager will, in accordance with SMS-09-OP-3021 Records Management, maintain:

- records of changes to existing Engineering Publications and records of creation of new Publications
- consultation records
- technical content sign-offs.

Responsibilities

Deputy Executive Director Engineering System Integrity	• Make sure Engineering Publications are created, amended, maintained and reviewed as necessary. • Make sure current up-to-date Sydney Trains Engineering Publications are available to workers and contractors carrying out engineering and maintenance activities for or on behalf of Sydney Trains.
Engineering Technical Publications Manager	• Facilitate the safety change, consultation and approval processes when establishing and/or amending Engineering Publications. • Review Engineering Publications every three years or earlier, as required. • Authorise Engineering Publications for use following formal approval from the relevant Level 4 ESI Manager (document owner).
Deputy Executive Directors (Level 3 Managers) – All Directorates	• Make sure all Sydney Trains workers and contractors (e.g. designers and maintenance suppliers) involved in designing, constructing, manufacturing, supplying, installing, operating, maintaining and disposing of assets under the control of Sydney Trains apply appropriate engineering standards to their work whether they be Sydney Trains or Industry Standards (i.e. ASA).
Level 4 ESI Managers or Document owners	• Identify the training needs associated with new and/or amended Engineering Publications. • Approve the technical content of Engineering Publications.
Line Managers	• Make sure workers are briefed of / trained in Engineering Publications. • Make sure workers are instructed about changes to Engineering Publications.

References

PR A 00242 Engineering Technical Document Development and Management

SMS-04-SP-3064 Asset Lifecycle Management

SMS-10-SP-3070 Communication and Consultation

SMS-07-SP-3067 Manage Safety Change

SMS-07-SP-3089 Manage Operational Safety Risk

SMS-09-SP-3021 Records Management

SMS-07-GD-3084 Hazard Identification and Safety Risk Assessment

SMS-11-SP-3011 Training and Competence

Version Control

Version	Change from previous	Date	Comment
1.0	First release of Sydney Trains SMS	01/07/2013	Launch of Sydney Trains SMS documents
2.0	Update to: - position and team titles - Appendix A - Include reference to PR A 00242	21/11/2019	Scheduled review cycle

Appendix A – Engineering Publications and Functions

Engineering Publications	Function
Engineering Standards	Standards are documents that provide measurable or quantifiable characteristics including parameters or criteria against which an asset must be designed, built and maintained. **The information in an engineering standard is mandatory**. Engineering standards provide functional and design requirements, performance criteria, physical characteristics, approved configurations, applications and operational or design limitations, damage limits and repair criteria. Standards are aimed at designers, constructors, asset managers, maintainers, manufacturers and suppliers. **Note:** Sydney Trains will develop and publish standards for its own use, in complying with industry-level standards set by the Asset Standards Authority (ASA) in Transport for NSW. Sydney Trains may also be engaged to develop standards for the ASA.
Engineering Specifications	Engineering Specifications are documents that provide acceptance criteria for specification engineering products or services. **The information in an engineering specification is mandatory**. Engineering specifications document the characteristics of products or services that meet the requirements of engineering standards. One or more engineering standards may be associated with an engineering specification.
Engineering Manuals	Engineering Manuals provide procedures for the installation, operation, inspection and maintenance of assets, including competency requirements, management requirements and maintenance limits and responses. Any requirements from engineering standards are repeated or referenced in the manual. These include maintenance procedures as well as equipment manuals and are closely associated with technical maintenance plans. Service schedules may also be included in engineering manuals. Engineering manuals are aimed at persons undertaking the activity in the field.
Engineering Procedures	Engineering procedures are documents that provide a sequence of activities that must be followed to correctly perform an engineering task.
Engineering Instructions and Advice	Engineering Instructions are documents that provide urgent engineering information. **The information in an engineering instruction is mandatory**. Engineering instructions have a defined life. They can be used to provide interim changes to engineering standards, manuals and specifications until more extensive updates to these documents are effected. Engineering Advices are temporary documents that provide engineering advice for interim use, until (a) the information is no longer current, and the advice is deleted, or (b) the information is incorporated in the relevant engineering standard or other engineering document, and the advice is deleted. The information provided in an engineering advice is guidance, and is not mandatory.
Technical Maintenance Plans and Service Schedules	These documents define the requirements for maintenance of listed asset classes and nominate the periodicity or other trigger for undertaking the listed Service Schedules. They are aimed at Asset Managers and Asset Maintainers.