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Volume 5, Chapter 3

Procedure Development

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1.0 PURPOSE

This Chapter sets out a framework for determining if a new System Operating Procedure should be developed or if existing System Operating Procedures should be revised. A key feature of the framework is continuous improvement. It is underpinned by Quality Management Principles set out in International Organization for Standardization (ISO) Quality Management Standards. The content of this Section is specifically targeted towards Operations & Maintenance (O&M) management which is responsible for driving change within the O&M Department. The Procedure is designed to be scalable, dependent on the size of the entity and the number of stakeholders involved in developing procedures.

A policy is a tool used by each organization to set out its principles as a statement of intent. Each policy typically focuses on one subject matter and is used to guide decisions in order to achieve desired outcomes around that specific subject matter. A policy is implemented by means of a Procedure. Well established policies offer several benefits to the organization.

Policies:

- Fulfil employers' duty of care (i.e. health and safety at work, discrimination, travel, etc.)
- Provide employees with a clear understanding of what is expected of them
- Offer a fair and consistent approach to managing workplace issues
- Improve the standard of induction for new employees
- Form a core part of mandatory training

Having a comprehensive set of operating procedures driven by policies is key to building a successful operation. Procedures describe, in a step-by-step way, how to complete a task. Procedures are often supported by processes which illustrate how each part of the procedure interfaces with the other.

Well-defined procedures:

- Are action-oriented
- Feature clear outcomes
- Describe steps to be taken, and the order in which they need to be taken
- Are applicable to all organizations and all tasks, whether large or small

Implementing fit-for-purpose, business-specific System Operating Procedures offer the customer the following benefits:

- Consistency in approach among operations personnel when executing critical operations
- The ability to define and link training to each procedure
- The ability to demonstrate compliance with latest technical standards and best practices
- A reduction in human error
- Upskilling of newly inducted technicians to a level consistent with other experienced technicians
- Reduced reliance on the memory and competence level of individual technicians
- More robust auditing, root cause analysis, and reporting
- Ability to easily pinpoint errors and capture lessons learned within the continuous improvement process

2.0 SCOPE

While Chapter 5.3.1: Procedure Development sets out a framework for developing a System Operating Procedure based on the application of Quality Management Principles, Chapter 5.3.2: Procedure Writers Guide describes how to follow the framework set out in Chapter 5.3.1 such that the correct content, style, tone, and overall objectives of each System Operating Procedure shall be achieved. Chapter 5.3.1 and Chapter 5.3.2 shall be read and applied in conjunction with one another in order to develop, review, and establish new business-specific System Operating Procedures.

3.0 DEFINITIONS

Definitions	Description
CIM	Continuous Improvement Model
DDED	Dragging Equipment Detectors
FM	Facility Manager
HABD	Hot Axle Box Detection
ID	Identification
ISO	International Organization for Standardization
KPIs	Key Performance Indicators
LM	Line Manager
NMA&FM	National Manual of Assets & Facilities Management
O&M	Operations and Maintenance
Organization	This can be an entity, division, department or building management group
PDCA	Plan-Do-Check-Act
Policy	Plan of action agreed or chosen by an organization, business etc.
Procedure	Instructions or steps that describe how to complete a task or do a job
PCN	Procedure Change Notice
PRB	Procedure Review Board
RSM	Rolling Stock Monitoring
SBC	Saudi Building Code
SLT	Senior Leadership Team
SOP	Standard Operating Procedure

4.0 REFERENCES

- ISBN 978-92-67-10650-2 ISO 9000 Quality Management Principles
- EOM-ZO0-PR-000009 NMA&FM Chapter 5.3.2: Procedure Writers Guide

5.0 RESPONSIBILITIES

Those responsible for establishing new System Operating Procedures and revising the existing System Operating Procedures are noted below:

Responsible	Description
Maintenance Team	Those responsible for maintaining the systems which forms the focus of the proposed operating Procedure
Operations Team	Those responsible for operating the system which forms the focus of the proposed operating Procedure
Procedure Review Board (PRB)	The Review Board is responsible for governing the preparation, and Executive Sign-off associated with new System Operating Procedures and revision of existing System Operating Procedures
Safety Officer	Person with overall responsibility for safety of personnel within the organization
Senior Leadership Team	Those responsible for defining organization policies

Table 1: Roles & Responsibilities

6.0 PROCESS

The following process shall be followed when determining whether a new System Operating Procedure should be created or if existing System Operating Procedures should be revised:

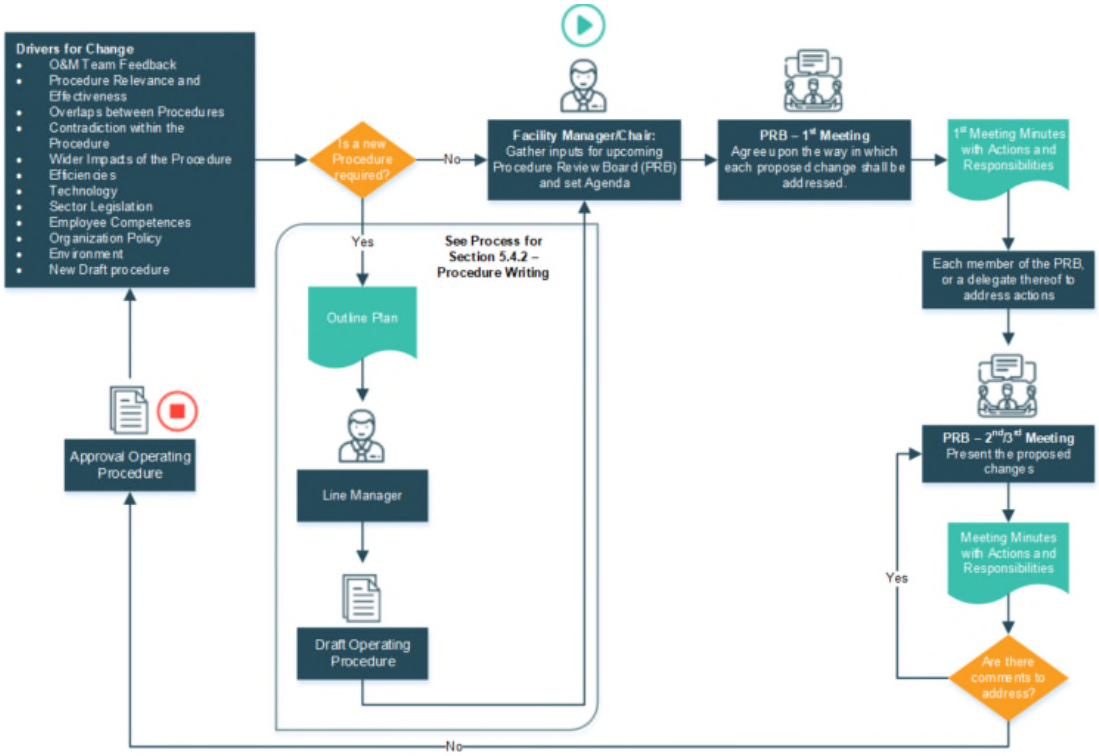

Figure 1: Procedure Development Process

6.1 Recognizing the Need for Change

Change may be driven by several factors including efficiencies, technology, sector legislation, employee competencies, organizational policies, environment, etc. Recognizing the need to establish or update procedures in line with drivers for change is the responsibility of each member of staff. Understanding the impact of change on organizational operations, taking appropriate steps to mitigate risk, and facilitating a smooth transition to the new operating procedure is the responsibility of management. The Continuous Improvement Model (CIM) offers an effective approach to recognizing and implementing change.

The Plan-Do-Check-Act (PDCA) Cycle illustrated in Figure 2 shall be used for implementing change. The PDCA Cycle should be repeated again as a part of the CIM.

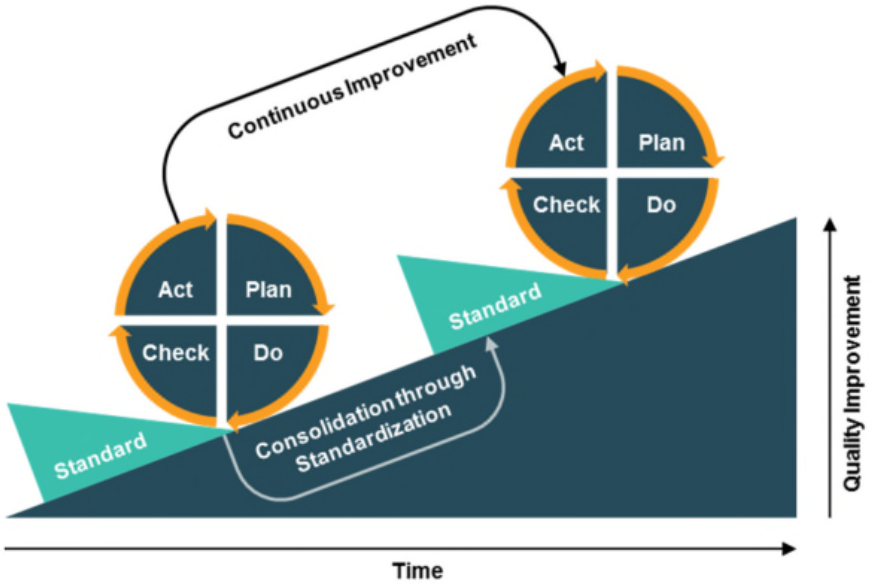

Figure 2: PDCA Cycle

Applying a CIM to Procedure development is specifically important when:

- Managing and controlling the effects of change in the operating environment
- Maintaining efficient operations by minimizing failures and maximizing productivity
- Achieving Key Performance Indicators (KPIs)
- Pursuing or maintaining quality management certifications

6.2 Establishing the Procedure Review Board

A Procedure Review Board (PRB) featuring representation from within the organization shall be established. The PRB shall govern the preparation, and Executive Sign-off associated with new System Operating Procedures and revision of existing System Operating Procedures. Representative members of the PRB shall be appointed as follows:

PRB Member	Role Description/Definition
Senior Leadership	An executive member of the organization with knowledge of existing policies and procedures who represents the Senior Leadership Team (SLT) and can facilitate executive sign-off
Facility Manager (FM)	A representative with a sound understanding of wider organizational operations as well as how they may be impacted by the proposed operating procedure. The FM shall chair the PRB.
Operations	A member of the Maintenance Team with first-hand experience in maintaining the system which forms the focus of the proposed operating procedure
Maintenance	A member of the Maintenance Team with firsthand experience in maintaining the system which forms the focus of the proposed operating procedure
Safety Officer	A person with overall responsibility for safety of personnel within the organization

6.3 Annual Meeting of the Procedure Review Board

In mature organizations with established procedures, an annual review shall suffice as part of the CIM. During the annual review, the PRB shall convene to:

- Review procedures for effectiveness
- Challenge the relevance of procedures
- Consolidate procedures and identify overlaps
- Review unforeseen impacts resulting from implementation of operating procedures and take appropriate mitigating action
- Highlight drivers for change and their impact on existing operating procedures
- Gather feedback from O&M and propose necessary updates to Operating Procedures

The PRB can meet as often as is required during the review period.

The PRB should ensure cohesion between the section-under-review and other sections within the operating procedure, and other operating procedures. The annual meeting of the PRB is designed to address specific sections of procedures which may have been affected by a driver for change and does not necessitate that the procedure be revised in its entirety.

6.4 Procedure Change Management

The disadvantage to completing only an annual review of procedures, is a delay to change implementation, which can subsequently present a risk to the organization. To mitigate the risk associated with change delay, a Procedure Change Notice (PCN) shall be utilized.

A PCN is used to advise the users of a change and outline any mediatory actions to be taken until the procedure has been fully reviewed, amended, and re-issued (if required). A PCN Template is contained within Appendix 1.

6.5 Full Overhaul of Existing Procedure

Overhaul of existing procedures should occur once the need is identified (outside of the PRB), and the draft brought to the PRB for review.

A full overhaul of an operating procedure is required when, for example:

- The existing version of the Procedure is not being followed by the customer
- Standards, technology, or legislation cited within the Procedure have changed significantly
- The organization policy or strategic direction has changed
- The Procedure purpose has now changed

In some rare instances, it may be sensible to write an entirely new procedure to replace an old one. This replacement procedure should be more aligned to the latest operating principles. In such instances, the Facilities Manager is responsible for the following:

- Issuing PCN
- Managing production of new procedure
- Managing transition between existing procedure and new procedure
- Launching new procedure following review of the PRB and executive sign-off

6.6 Establishing a New Procedure

Should the customer identify a need to establish a new procedure outside of the PRB, then approval should be sought from the Line Manager (LM) in preparing an outline plan (Appendix 1 of Chapter 5.3.2: Procedure Writers' Guide).

The outline plan will be approved by the LM directly, and the operational personnel can set about drafting the procedure as per Chapter 5.3.2: Procedure Writers' Guide.

The procedure shall be presented to the PRB for review and executive sign-off.

6.7 Methodology for Reviewers

To complete review of a procedure, it is best practice to follow the principles within the organization's Quality Management Process. The reviewer should eliminate any excess "waste" (i.e. inefficient or non-essential activities) within the procedure.

Inefficient or non-essential activities include:

- A step in a process which does not add value from the point of view of the customer
- Anything which may lead to rework, duplication, and unproductive time spent

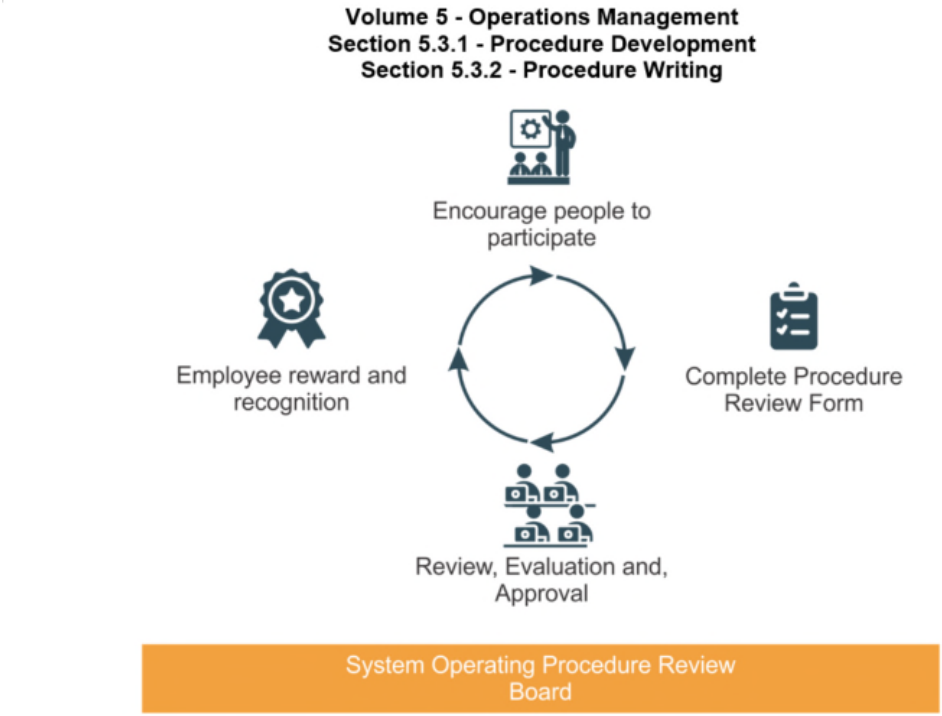

Figure 3: Procedure Review Board

7.0 ATTACHMENTS

Attachment 1 – EOM-ZO0-TP-000063 - Procedure Change Notice Template

Attachment 1 – EOM-ZO0-TP-000063 - Procedure Change Notice Template

Date: xx/xx/xxxx

Title: Failure of Rolling Stock Monitoring Sites (DDED/HABD) – one site

Description

<Insert the details of the change>
There are Rolling Stock Monitoring (RSM) sites positioned across the network fitted with Hot Axle Box Detection (HABD) and Derailed and Dragging Equipment Detectors (DDED). Should there be a failure of one or more sites then mitigation needs to be in place to ensure the integrity of the rolling stock.

Action Required

One Site Failed

<Detail the actions required relevant to your entity >
If one RSM site has failed then no action is required, unless the train has had a previous alarm for HABD or DDED during its journey.

If the train has had a previous alarm, then the driver must be instructed by the Train Controller to stop the train at the nearest passing loop to check the train for any signs of a hot axle box or any equipment dragging or derailed.

Two or More Consecutive Sites Failed

<Detail the actions required relevant to your entity>
If two or more consecutive sites have failed then the driver must be instructed by the Train Controller to stop the train at the passing loop nearest every other failed RSM site (2nd, 4th, 6th etc) to check the train for any signs of a hot axle box or any equipment dragging or derailed.

Conclusion
<Reference the Procedure to be changed>

Procedure XXX-XXX-XXX
This is an amendment to Procedure XXX-XXX-XXX and should be followed until further notice

Signed:

Date:

Position: