COP0100
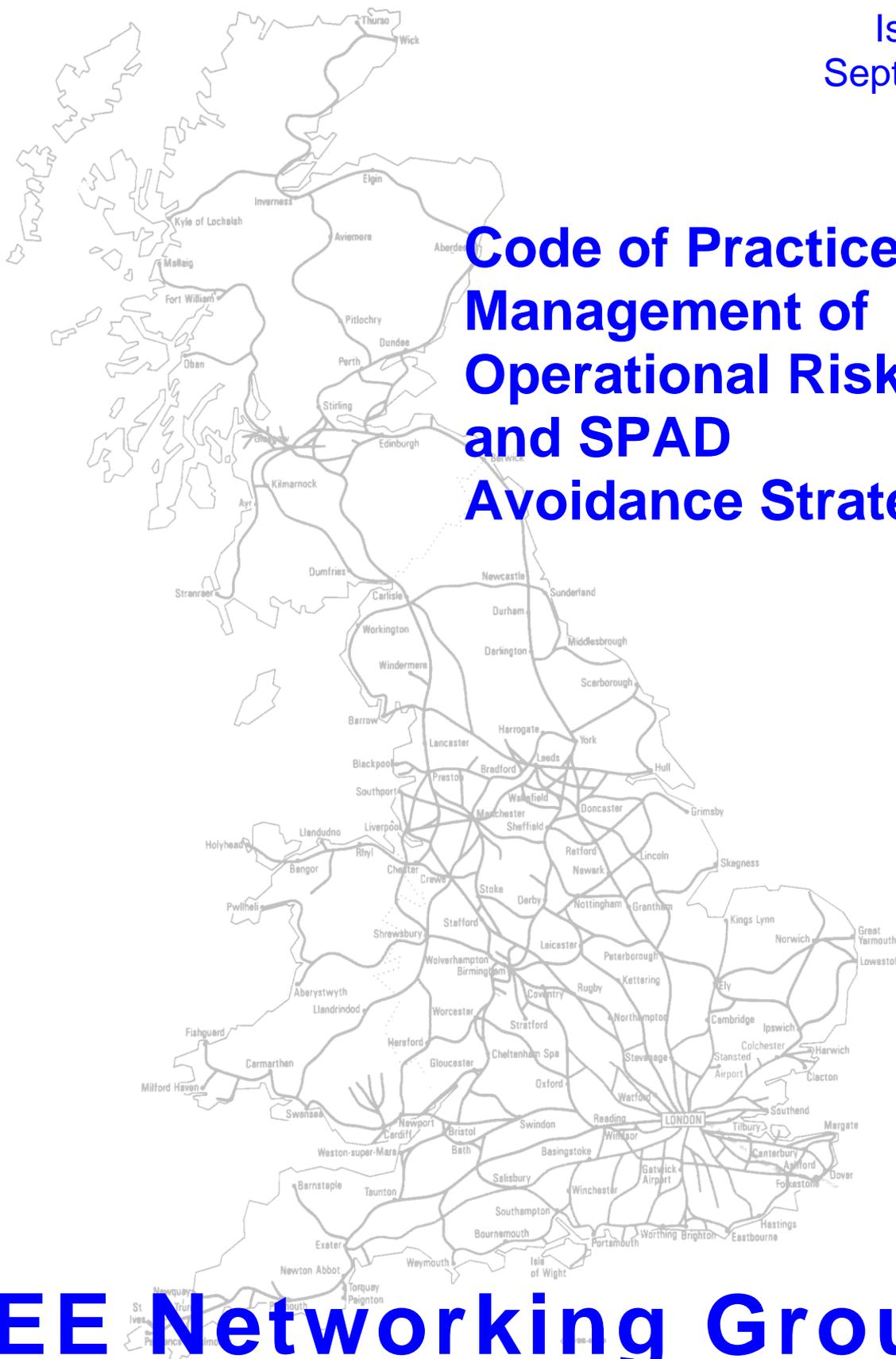Issue 8
Sept 2017

Code of Practice for Management of Operational Risk and SPAD Avoidance Strategy

M&EE Networking Group

Uncontrolled when printed
Supersedes COP0100 Iss 7 with effect from 02/12/2017
Published by RSSB on behalf of M&EE Networking Group

No   **COP0100**   M&EE Networking Group Code of Practice for
Issue   8   Management of Operational Risk and
Date   Sept 2017   SPAD Avoidance Strategy
Page   2 of 12

Document revision history

Issue	Date	Reason for change
5	Mar 2009	Inclusion of Operational Risk
6	May 2011	Periodic review
7	Mar 2014	Periodic review
8	Sept 2017	Review / Industry change

Background

The OTM Operations sub-group on behalf of the M&EE Networking Group have looked at an Operational Risk and SPAD Awareness Strategy. The M&EE Networking Group recommend this COP as good practice for the industry.

M&EE COPs are produced for the benefit of any industry partner who wishes to follow the good practice on any railway infrastructure. Where an infrastructure manager has mandated their own comparable requirements, the more onerous requirements should be followed as a minimum for work on their managed infrastructure.

The M&EE Networking Group makes no warranties, express or implied, that compliance with this document is sufficient on its own to ensure safe systems of work or operation. Users are reminded of their own duties under health and safety legislation.

OTM Operations group

Neal Fussey (Chair)	neal.fussey@volkerrail.co.uk
S Peskett	speskett@harsco.com
John Shields	john.shields@babcockinternational.com
Alan Smith	alan.smith2@balfourbeatty.com
Andrew Skitt	andrew.skitt@colasrail.co.uk
Neil Whisler	neil.whisler@amey.co.uk
Paul Withey	paul.withey@networkrail.co.uk

Uncontrolled when printed
Supersedes COP0100 Iss 7 with effect from 02/12/2017
Published by RSSB on behalf of M&EE Networking Group

M&EE Networking Group Code of Practice for Management of Operational Risk and SPAD Avoidance Strategy	No	**COP0100**
	Issue	8
	Date	Sept 2017
	Page	3 of 12

Sign off

The M & EE Networking Group agreed and signed off this Code of Practice on 13 September 2017 and published on 2 December 2017

Amey	**N Whisler**	Chief Engineer & PH Rail operations
Babcock	**J Shields**	Operations Standards Manager
Balfour Beatty Rail	**A Smith**	Operations Compliance & Standards Manager
COLAS RAIL	**A Skitt**	Driving Standards Manager
Harsco Rail Ltd	**A Philpot**	Ops Standards & Training Manager
VolkerRail	**N Fussey**	Professional Head of operations
Network Rail	**P Withey**	Driving Standards Manager

Purpose

This operational risk strategy sets out the focal points for directors, managers and front line operations staff. It also describes measures that can be implemented to assist with avoidance of category "A1" SPADs and operational incidents associated with On Track Machine (OTM)/Train movements.

Scope

This code of practise covers the OTM/Train operational risk and SPAD awareness strategy and will be reviewed through regular M&EE meetings and updated as necessary.

Definitions

SPAD	Signal Passed at Danger

Category A SPAD(s)

A1 - When a SPAD has occurred and, according to available evidence, a stop aspect, indication or end of in-cab signalled movement authority was displayed or given correctly and in sufficient time for the train to be stopped safely at it.

A.2 - When a SPAD has occurred and, according to available evidence, the stop aspect, indication or end of in-cab signalled movement authority concerned was not displayed or given correctly, but was preceded by the correct aspects or indications.

A.3 - When a SPAD has occurred and, according to available evidence, verbal and/or visual permission to pass a signal at danger was given by a handsignaller or other authorised person without the authority of the signaller.

A.4 - When a SPAD has occurred and, according to available evidence, a stop aspect, indication or end of in-cab signalled movement authority was displayed or given correctly and in sufficient time for the train to be stopped safely at it, but the train driver was unable to stop his train owing to circumstances beyond his control (for example, poor rail head adhesion, train braking equipment failure or malfunction etc).

No   **COP0100**   M&EE Networking Group Code of Practice for
Issue   8   Management of Operational Risk and
Date   Sept 2017   SPAD Avoidance Strategy
Page   4 of 12

Accident	An unwanted or unintended sudden event or a specific chain of such events which have harmful consequences; accidents are divided into the following categories: collisions, derailments, level-crossing accidents, accidents to persons caused by rolling stock in motion, fires and others.
Operational Incident	Any occurrence, other than accident or serious accident, associated with the operation of trains and affecting the safety of operation.
Duty Holder	Railway Undertakings - A transport undertaking, as defined in the Railways and Other Guided Systems Regulations 2006, whose safety certification covers operation of trains on the managed infrastructure, as defined in the Railway Group Standards Code.

Uncontrolled when printed
Supersedes COP0100 Iss 7 with effect from 02/12/2017
Published by RSSB on behalf of M&EE Networking Group

M&EE Networking Group Code of Practice for Management of Operational Risk and SPAD Avoidance Strategy	No	**COP0100**
	Issue	8
	Date	Sept 2017
	Page	5 of 12

1 Reporting Timescale

1.1 The M&EE reporting year will be 01st April to the 31st March in line with the industry (RSSB) reporting.

2 OTM Operational Risk and SPAD Avoidance Strategy

2.1 SPADs can be a high profile cause of, or precursor to, collisions and derailments which may result in death and major injury to employees, train passengers, damage to rolling stock, infrastructure and the environment. SPADs usually cause significant disruption to the safe operation of the rail network and increase the cost of operations

2.2 Each M&EE Group member will deliver and further develop this Operational Risk and SPAD Avoidance Strategy so that the profile of all operational risk is communicated throughout their respective company.

2.3 The key priorities are to;

   a) Promote awareness of operational risk and co-operation between all functions of the business.

   b) Oversee the delivery of the Operational Risk and SPAD awareness strategy.

   c) Constantly communicate and seek to improve all key messages to staff.

   d) Support all Operational Safety Groups.

   e) Assimilate and cascade industry good practice.

   f) Promote the understanding of behavioural safety and human factors error using organisational safety culture.

   g) Liaise with Infrastructure Manager, Operations Managers and industry partners for appropriate investigations into SPADs and operational incidents.

   h) Monitor operational incidents regularly to identify any trends or new factors.

   i) Contribute to the development of the Operational Risk and SPAD Awareness Strategy.

   j) Develop operational briefing material.

   k) Ensure that industry recommendations, in so far as they are relevant and applicable to OTM/Train operations, are acted upon and implemented.

Uncontrolled when printed
Supersedes COP0100 Iss 7 with effect from 02/12/2017
Published by RSSB on behalf of M&EE Networking Group

No   **COP0100**   M&EE Networking Group Code of Practice for
Issue   8   Management of Operational Risk and
Date   Sept 2017   SPAD Avoidance Strategy
Page   6 of 12

2.4   M&EE Group members will work with industry partners to deliver their contribution towards the avoidance of operational risks and category A SPADs by:

    a) Reviewing of incidents at M&EE meetings to provide consistency and clarity of understanding of causes.

    b) Implementing actions learnt from incident investigations and industry good practice initiatives.

    c) Ensuring that those lessons are communicated promptly to all working levels.

    d) Sharing good practice to promote continuous improvement in competence of staff involved with the operation of OTMs.

    e) Ensuring that OTMs are adequately maintained.

    f) Participating in industry initiatives to improve safety critical communications.

    g) Consulting staff regarding the ergonomics of driving cab design.

    h) Actively supporting and contributing to joint industry initiatives aimed at the reduction and awareness of operational risks and Category A SPADs.

2.4   The M&EE group members are committed to working together in identify and reduce those causes that can lead to a SPAD and to work with other industry partners to continue the reduction in the risks from the consequences of SPADs.

2.5   In line with above, the M&EE group members are also committed to reporting into and using the safety performance data through the Safety Management Intelligence System (SMIS+) to help identify trends. These can indicate where further action may be needed to collaboratively reduce the risk to as low as reasonably practicable. This will also help improve duty holders' safety management systems, and enhance system reliability, safety, and sustainability of the overall rail network.

Note: the industry is currently rolling out SMIS + which is scheduled to go live on the 5th December 2017.

Uncontrolled when printed
Supersedes COP0100 Iss 7 with effect from 02/12/2017
Published by RSSB on behalf of M&EE Networking Group

M&EE Networking Group Code of Practice for Management of Operational Risk and SPAD Avoidance Strategy	No	**COP0100**
	Issue	8
	Date	Sept 2017
	Page	7 of 12

3 Objectives

3.1 The M&EE group is committed to the progressive improvement of operational safety. This will be achieved by:

a) Reporting, sharing and recommending changes identified from M&EE operational incidents

b) Monitoring industry performance in relation to operational incidents and recommending changes to priorities and strategies.

c) Identifying and initiating activities to improve management of operational safety risk, including the sharing of good practice across the industry.

d) Agreeing priorities and strategies to be implemented to reduce the risk and mitigate the consequences of operational safety incidents.

No   **COP0100**   M&EE Networking Group Code of Practice for
Issue   8   Management of Operational Risk and
Date   Sept 2017   SPAD Avoidance Strategy
Page   8 of 12

4   Operational risk management - key areas of focus

4.1   The following key areas of improvement are to be undertaken:

a) Signals Passed at Danger (SPAD)

   i.   Produce an OTM SPADs report in line with industry reporting that looks at causation and from this all lessons learnt are shared with the drivers and the industry to help support reduction and mitigate against risk.

b) Safety Critical Communications:

   i.   Participation in industry initiatives / workshops,

   ii, monitoring effectiveness of spoken safety communications, (GO/GN8516). Review examples of both good and poor communication.

   iii. Participation in Network Rail led Communication Review Groups.

c) Operational Incidents including RAIB reports

   i.   Collaboration with the M&EE Core group, to minimise train collision, derailments and track damage e.g. points run through.

   Review RAIB reports focusing on all recommendations and lessons aimed at train driving / operating duties.

d) Industry Cooperation

   i.   Workshop output

   ii. RSSB and company publication review

e) Formulation of generically themed briefings:

   i.   Review briefing material for effectiveness.

5   M&EE Group Actions

5.1   Operational Risk Management

5.1.1   Group members will investigate Category A SPADs and operational incidents.5.1.2   Infrastructure contractor and company specific trends will be analysed and monitored at each group meeting to ensure that precursor risks are speedily identified and mitigated so far as reasonably practicable. Where there is a wider context to the risks identified, these will be shared at the appropriate cross-industry forum.

5.1.3   Group members will ensure that sufficient resources are available to investigate SPADs and operational events to a depth justified by the potential consequence of the incident. Reasonably practicable recommendations will be followed to reduce the likelihood and/or consequences of future incidents.

5.1.4   Where group members have reviewed an operational incident investigation report any relevant details or lessons learnt will be shared with the group and briefed to the workforce.

5.1.5   Group members will actively participate in the Train Operation Sub Group (TOSG).

5.1.6   In addition group members individually attend meetings with local Network Rail Operations Managers and Route Directors.

5.2   SPAD Reduction and Awareness

5.2.1   Each group member has formulated a driving policy which addresses generic industry issues as well as their company's own operational needs and risks including:

- Human factors including life-style guidelines

- SPAD awareness

- Common SPAD traps

- Route risks

- Incident and near miss (Close Call) reporting

- Communication face to face or by use of mobile telephonic equipment

No	**COP0100**	M&EE Networking Group Code of Practice for
Issue	8	Management of Operational Risk and
Date	Sept 2017	SPAD Avoidance Strategy
Page	10 of 12	

5.2.2 Professional driving, which is a recognised industry good practice, taken from defensive driving, will be monitored as part of the driver's competence management process.

5.2.3 Group members will formulate and update as required route risk assessments applicable to their scope of operation. These risk assessments will provide specific information on route features that will support comprehensive application of the professional driving policy. Where applicable, these risk assessments will be shared with all group members.

5.2.4 Group members' current understanding of human factors and ergonomic issues will be considered in the design of new OTM, signal sighting and signalling schemes.

5.2.5 For new track layouts and signalling schemes, group members will use appropriate briefing material for training purposes. These may include route DVDs, yellow perils, track diagrams, revised route packs, written instructions etc.

5.3 Competency

5.3.1 Each group member is committed to a high level of training, development and competence for OTM drivers.

5.3.2 To achieve this, drivers are assessed in all aspects of their job, including:

- Rules and regulations
- Traction knowledge
- Train driving techniques
- Route knowledge
- Safety critical communications
- Route conducting

5.3.3 Each group member is committed to transferring details of a driver's safety information when a driver transfers to another railway undertaking. (RIS3751)

Uncontrolled when printed
Supersedes COP0100 Iss 7 with effect from 02/12/2017
Published by RSSB on behalf of M&EE Networking Group

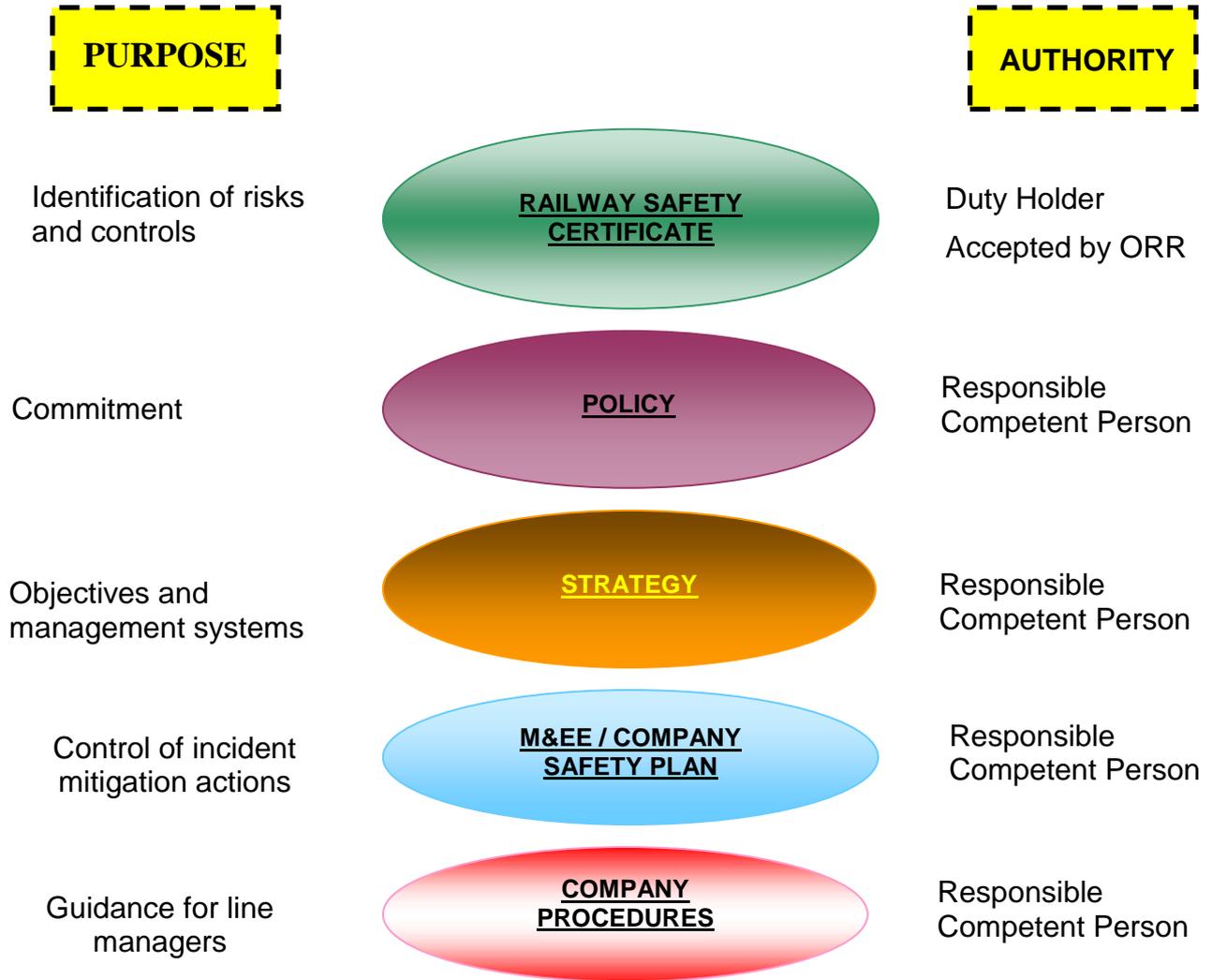| M&EE Networking Group Code of Practice for | No | **COP0100** |
Management of Operational Risk and	Issue	8
SPAD Avoidance Strategy	Date	Sept 2017
	Page	11 of 12

5.4   Communications

5.4.1   Each group member will ensure that drivers and other relevant staff are kept up to date with all safety related communications. This will be carried out as part of the regular safety briefings and will ensure that drivers and staff are made aware of the following:

- SPAD

- Good practice

- Lessons learned

- Safety critical communications

- SPAD alerts and SPAD awareness campaigns

- Right Track and Red series CD rom / DVDs

- Safety Net / Safety 365 series videos / DVDs

- Multi SPAD signals.

- Opsweb and NR Safety Central

- Lifestyle issues

- Seasonal and operational risks

5.4.2   Group members will also attend joint industry communication review groups and from this feedback to the group key information as appropriate.

Uncontrolled when printed
Supersedes COP0100 Iss 7 with effect from 02/12/2017
Published by RSSB on behalf of M&EE Networking Group

No	**COP0100**	M&EE Networking Group Code of Practice for
Issue	8	Management of Operational Risk and
Date	Sept 2017	SPAD Avoidance Strategy
Page	12 of 12	

6   Implementation

6.1   Each M&EE group member is committed to a fully integrated and proactive approach to the management of SPADs and Operational Risks. This will be implemented through each M&EE group member's safety management system.

PURPOSE		AUTHORITY
Identification of risks and controls	**RAILWAY SAFETY CERTIFICATE**	Duty Holder Accepted by ORR
Commitment	**POLICY**	Responsible Competent Person
Objectives and management systems	**STRATEGY**	Responsible Competent Person
Control of incident mitigation actions	**M&EE / COMPANY SAFETY PLAN**	Responsible Competent Person
Guidance for line managers	**COMPANY PROCEDURES**	Responsible Competent Person

6.2   Performance will be monitored through the regular M&EE Group meetings. The group will determine any actions required.

6.3   This document will be reviewed annually and reissued as deemed necessary by the M&EE OTM Operations Group.

Note: see also Scope re timescale.