

Standard Category **1**

S1213

Asset Condition Monitoring, Alarm and Alert Management

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1 Purpose

- 1.1 The purpose of this Standard is to set the requirements for the configuration, design and maintenance of Asset Condition Monitoring, Event Monitoring and Remote Monitoring systems (generically called CM in this document) and Alarm, Alert Management (generically called Notifications Management [NM] in this document) connected to, or an integral part of, a CM system.
- 1.2 The objective of this standard is to ensure consistent design and delivery of Asset CM and or NM systems and in addition to define clear responsibilities for the ongoing management of such systems.
- 1.3 This Standard covers those requirements specific to Asset CM and or NM systems. Other relevant Standards and Policies are applicable to CM and or NM assets as they are to all other assets. Requirements which are in other Standards and Policies have therefore not been duplicated in this document.
- 1.4 Some of the main reasons for implementing Asset CM and or NM system are:
- a) Improvement of asset dependability
 - b) Reduction in the cost of maintenance
 - c) Extension of asset life
 - d) Improvement in Mean Time To Repair
 - e) Increasing asset knowledge
 - f) Prevent service affecting failures
 - g) Prioritise use of resources.
- 1.5 CM data can be used for:
- a) Predict & prevent maintenance
 - b) Prognostic, Health or State assessments (See BS ISO 13374:2003)
 - c) Alarms & Alerts (Notifications)
 - d) Maintenance Planning
 - e) Asset Management
 - f) Asset Condition Reporting
 - g) Business Intelligence
 - h) Operations

Note: The lists above are not intended to be comprehensive.

- 1.6 The Technical Content Manager of this Standard is The Head of Technical Strategy, Systems Performance & Innovation.

2 Scope

- 2.1 This Standard applies to expansion of existing CM and or NM systems and new CM and or NM systems retrofitted to existing assets or installed as part of new assets.
- 2.2 This standard does not mandate that CM and or NM systems are always fitted, but defines the requirements when a decision to develop and install a new system or to upgrade an existing system has already been made.
- 2.3 This Standard is to be applied to permanent CM and or NM systems to be used as part of business as usual. This includes both installed CM and condition data collected using portable equipment. The Standard is not intended to be applied to truly temporary applications.
- 2.4 This standard is to be applied to NM connected to, or an integral part of, a CM system. The CM functionality and requirements shall determine whether or not an NM system is needed.
- 2.5 This standard replaces S1213 A1, which is hereby withdrawn.

3 Requirements

3.1 System Development

- 3.1.1 Existing CM and or NM systems expansion and new CM and or NM systems selection and design shall not commence without first consulting with the Technical Content Manager of this Standard.

Note:	See Section 4 for the responsibilities of the Technical Content Manager of the Standard.
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3.2 System Selection

- 3.2.1 An existing CM system shall either be expanded to accommodate additional CM or existing CM systems with duplicate functionality shall be replaced by the new CM system; unless there is strong justification otherwise.
- 3.2.2 An existing NM system shall be expanded to accommodate additional CM outputs, unless there is strong justification otherwise.
- 3.2.3 An evaluation shall be performed of any relevant existing LU CM and or NM system to understand if it could be re-used in whole, or in part, in order to meet the requirement.

3.3 CM System Design

- 3.3.1 The CM solution shall be designed and optimised using the methodology in section 4 of BS ISO 13379:2012 to:
 - a) Decide if CM is the right solution
 - b) Measure the correct variables
 - c) Define the timeliness of access to data for both 'immediate' and 'historic' analysis
 - d) Optimise the CM system

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