

National Manual of Assets and Facilities Management

Volume 6, Chapter 2

Formality of Maintenance Performance Procedure

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Formality of Maintenance Performance Procedure

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Formality of Maintenance Performance Procedure

1.0 PURPOSE

Formality of Maintenance Performance is documentation containing the key requirements or categories of a high quality and strong maintenance management operating model, in a format that allows it to be used for any contractor assessment purposes.

The purpose of this Formality of Maintenance Performance Procedure (FoMPP) is to provide the Entity with the means to assess if the maintenance service provider has adequate management systems present. This assessment activity can form part of a continuous improvement cycle.

2.0 SCOPE

Formality of Maintenance Performance is intended to assure the Entity, its users, stakeholders, and any appointed maintenance contractors that the conduct of maintenance operations is of a high standard. This high standard refers to the strength, quality and robustness of the day-to-day operations.

Implementation of a FoMPP will help assure the Entity or Facility that their appointed maintenance contractor has a business operating model that may be considered as a 'Best Practice' standard. The periodic use of the FoMPP Template will produce a strength test report that the Entity can trace the source to the beginning of the contract and their stakeholders.

This Procedure provides an Entity client with an assessment tool that can be applied to their various maintenance contracts.

The use of this Procedure should complement and respect the associated documents in other Volumes of the National Manual of Assets and Facilities Management (NMA&FM).

The Procedure presented here should be considered the minimum standard for 'Best Practice' and may be developed further to meet the particular needs of an Entity, sector, and contractor site.

The guidance given is applicable across varying types of contracts and operating models, including multi-site contracts, in-house or out-sourced delivery models, and specialist environments and is applicable to all sectors. It is also intended for application within a hard services maintenance environment, though the principles can also be applied to the soft services environment.



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3.0 DEFINITIONS

Term	Definition
Change Management	The processes, tools, and techniques to manage the people side of change to achieve the required business outcome
Emergency Operating Procedure (EOP)	A plan of actions to be conducted in a certain order or manner in response to a reasonably foreseeable emergency
Fire-fighting	The practice of dealing with problems as they arise rather than planning strategically to avoid them.
Formality of Maintenance Performance	Formal documentation, practices, and actions implementing disciplined and structured maintenance operations that support client business success and promotes worker, public, and environmental protection. The goal is to minimize the likelihood of technical and organizational system failures.
Plant	General term that includes built environment, assets, and engineering systems equipment
Standard Operating Procedure (SOP)	A set of written instructions that document a routine or repetitive activity followed by an organization
Work Control	Work Control of operations and maintenance activities refers to the management of planning and execution of resources to meet the needs of planned and unplanned contractual and customer requirements
Work Management Center (WMC)	Team/office responsible for the management of planning and execution of resources to meet the needs of planned and unplanned, contractual and customer requirements. Refer to Volume 7: Work Control for more details
Acronyms	
CIBSE	Chartered Institution of Building Services Engineers
CMMS	Computerized Maintenance Management System
Continuous Improvement	An ongoing effort to improve products, services, or processes
DOE	Department of Energy
EOP	Emergency Operating Procedure
FoMPP	Formality of Maintenance Performance Procedure
HR	Human Resources
HSSE	Health, Safety, Security, and Environment
ISO	International Organization for Standardization
JHA	Job Hazard Analysis
KPI	Key Performance Indicator
POWRA	Point of Work Risk Assessment
PPE	Personal Protective Equipment
PTW	Permit to Work
RAMS	Risk Assessments and Method Statements
SOP	Standard Operating Procedure
TBT	Tool-Box Talk
WMC	Work Management Center

Table 1: Definitions



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4.0 REFERENCES

- CIBSE Guide M Chapter 14 Maintenance Audits and Chapter 18 Training
- ISO 55001 Asset management – Management systems
- ISO 41001 Facility management – Management systems
- ISO 45001 Occupational Health and Safety
- National Manual of Assets and Facilities Management (NMA&FM) – Volume 6, Chapter 3, Types of Maintenance
- National Manual of Assets and Facilities Management – Volume 7: Work Control
- ISO 14001 Environmental Management
- ISO 9001 Quality Management Systems

5.0 RESPONSIBILITIES

Key personnel involved in this Procedure are given here:

Role	Description
Entity client	A senior manager responsible for delivering cost effective and contract compliant facilities management. This person is knowledgeable and competent in the technical and contractual aspects of the maintenance contract and senior enough to provide awareness to the most senior level of management within the client organization
Health, Safety, Security, and Environment (HSSE) Manager	An individual responsible for the performance, assurance, and management of key parts of the maintenance operation
Maintenance Contractor – Contracts Manager	An individual responsible for presenting the required responses to The Entity/Client. The Contracts Manager will likely rely on the Work Management Center (WMC) for the provision of evidence to support the responses
Quality Assurance Managers	An individual responsible for ensuring that the required and presented information is complete, compliant, correct, and effective

Table 2: Responsibilities



6.0 PROCESS

Operational and organization best practice is necessary for the maintenance contractor to meet their Key Performance Indicator (KPI) targets without utilizing a 'fire-fighting' approach commonly resulting in marginal passing of the lower threshold KPI. FoMPP will highlight the weaknesses in the maintenance contractor's operation and allow Entity client and the contractor to understand the risks that are present. This awareness will then allow the stakeholders to make decisions on how to manage the highlighted risks, whilst identifying areas of weakness on which to improve.

FoMPP is designed to be part of a continuous assessment activity. It is best practice for the Entity/Client to periodically assess the quality of their contractor through more than the reported KPIs.

6.1 Template Requirements

Compliance with this Procedure requires actions by both the Entity client and the maintenance contractor.

- Entity/Client: Tailoring of the Formality of Maintenance Performance Template to specify the maintenance operations requirements of Entity's estate
- Maintenance Contractor: Responses to the Entity client requirements stated in the Formality of Maintenance Performance Template

The 3-column Formality of Maintenance Performance Template is essentially a checklist.

- The first column provides the specific **Requirements**
- The second column providing **Detail Attributes** of the requirements
- The third column as the **Response** by the maintenance contractor

The first and second columns are the responsibility of the Entity client. Provided within the Template provided in this document are example requirements which should be reviewed and tailored.

6.1.1 Stakeholder Agreement

The Entity client should consult with their stakeholders in the development of the content of the FoMPP Template. Once agreed, the requirement should remain unchanged so that continuous, comparable assessment year-on-year can be carried out. This stakeholder agreement establishes the formality of the maintenance contractor performance assessment. This formal assessment of maintenance performance is not the Key Performance Indicators (KPIs) commonly used as a performance measurement. Further information of KPI's can be obtained from NMA&FM Volume 15 – Performance Monitoring.

6.1.2 Reporting and Recording

Completion of Formality of Maintenance Performance may be satisfied in several ways:

- Written response
- Site visits
- Formal recorded meetings

The contractor needs to demonstrate to their Entity client that they are actively assessing and improving their operation and that they have a cyclical process of continuous improvement. A recommended document to adopt as part of any continuous improvement process is National Manual of Assets and Financial Management (NMA&FM) – Volume 7: Developing Maintenance Procedures Guide.

The 'Response' by the maintenance contractor can take several forms. In a documentary form, the response may be a hyperlink to a document that provides evidence of addressing the requirement. In an interview form, the contractor may walk the Entity/Client around their premises or work locations to present evidence of addressing the requirement. These locations may include the WMC, the engineering workshops or stores; the training facilities; or the locations they occupy on the Entity's premises. The



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contractor may present original documents confirming training requirements and attendances, or internal audits.

6.2 Use and Development of the Template

A flowchart illustrating the FoMPP is provided in Attachment 1. This flowchart describes how the sections of the Template are addressed in turn by the Entity client, then the maintenance contractor, and finally the agreed improvements as part of the periodic assessment.

Many continuous improvement audit procedures contain a scoring system against a range of criteria. The aim is for the score to show improvement year on year. This FoMPP does not specify a scoring system. However, the Entity should consider the usefulness of a numerical or semantic system with the advice that clear definitions should be assigned to each level if used.

6.2.1 Audit

The level of success in applying a FoMPP to the maintenance operation is directly related to the energy and attention to detail provided by all stakeholders. The effectiveness of how the Entity implements this Procedure and conducts any audits against the maintenance operation will have a direct impact on how well the maintenance contractor performs. Consequently, customer satisfaction, engineering system uptime, and Value for Money over the long term is affected. Any contractor that presents a 'perfect score' should be viewed with suspicion. Frequent high scores should result in a review of the scoring matrix or measures to see that they are set at the correct level.

The maintenance contractor will receive this FoMPP as part of their external auditing regime and will be able take the findings of the periodic assessments to improve and strengthen their business operations. Both Entity stakeholders and contractor should strive for and demonstrate continuous improvement in order to maintain longer term relationships and contract longevity.

Adoption of this Procedure will help the Entity and maintenance contractor move away from a reactive model towards a planned and predictable model that can be refined. It is not possible to improve an unpredictable operation. Reference to, and adoption when applicable, of the documents stated in Section 4.0 References will help provide a robust response to the requirements of this Procedure.

6.2.2 Development

A potential development of the three-column template is to add a fourth column that agrees the actions or target required for improvement over the next audit cycle.



7.0 ATTACHMENT

1. Attachment 1 - EOM-ZM0-TP-000176 - Formality of Maintenance Performance Template
2. Formality of Maintenance Performance Procedure flowchart



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Attachment 1 - EOM-ZM0-TP-000176 - Formality of Maintenance Performance Template

REQUIREMENTS	DETAILED ATTRIBUTES	RESPONSE STATEMENT
Management		
Organization		
General	Internal processes are performance managed	
	Internal process performance is audited	
Organization chart	Responsibility and accountability is defined and stated	
Personal Descriptions	Quality of Personal Descriptions is managed	
	Competency descriptions are applicable and defined	
	Personal attributes are defined	
	Recruitment interviews are recorded	
Human Resource Management		
Job Descriptions	Job Descriptions are managed	
Personal Development Reviews	Contribution to HSSE and other initiatives is incorporated	
Disciplinary	Witness and independence is incorporated in disciplinary procedure	
Awards system	Individual staff recognition is managed	
Resource Calculations	Overtime is estimated to be reasonable over the short and long term	
	Overtime is as per current Saudi Labor Law	
	Routine tasks are performed without reliance on Supervisor support	
	Unplanned tasks are performed without over-reliance on Supervisor support	
	Adequate tools, Personal protective equipment (PPE) and safety equipment are provided	
	Restricted specialist tasks and locations are identified	
Resource accounting and refining	Overtime is calculated and reported on over the short and long term	
	Causes of increases in overtime are identified and mitigated	
	Personnel are not routinely transferred between sites other than 'shared' as declared in contract documentation	
	Tools are not transferred between sites	
	Single Points of Failure at all levels are identified and mitigated	
Document management	Separate Procedures are integrated	
	Procedures are periodically reviewed and updated	
	Documents and records are indexed and archived	
	Business Continuity is planned	



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HSSE Management		
Staff fitness	Staff health is assessed prior to employment	
	Staff health is monitored and managed during employment	
Client side	Client HSSE procedures are aligned with the contractor's procedures	
	Sector and industry specific HSSE requirements are adopted, wherever applicable	
Document production	Document Production Procedure is in place	
	Document Change Control Procedure is in place	
	Changes to site assets, and system are audited	
HSSE audits	HSSE Audit Procedure is in place	
	HSSE Incident Procedure is in place	
	HSSE improvements and initiatives procedure is in place	
	HSSE reporting Procedure is in place	
	Work involving restricted specialist tasks and work locations are reported	
Environmental	International Organization for Standardization (ISO) 14001 or similar in place	
Compliance & Performance		
Compliance and performance auditing	ISO 9001 or similar in place	
	Work Control operations audits carried out and reported periodically by senior staff	
	External periodic audits carried out and reported	
	Continuous Improvement targets are set, measured, and reported	
	Effectiveness of Human resources (HR) procedures are independently assessed and reported	
	Customer Satisfaction management procedure is in place	
Maintenance Operations		
Communications		
Internal	Provision of communications equipment	
	Provision and maintenance of contact details	
	Control of changes to contact details	
	Escalation Plan is in place	
	Private and sensitive communications procedure is in place	
	'Event' impacting Operations are notified and managed, e.g., 'all hands', visits by dignitaries, audits, investigations	
	Logs are reviewed and audited, and their information is transferred to archive	
External	Policy on client communications methods, responsibilities, standards, and practices is in place	



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	Escalation Plan is in place	
	Out Of Hours Client contact details	
	Out of Hours supplier contact details	
	Out of Hours emergency services contact details	
	Out of Hours government agency contact details	
Operational	Lone working contact practices	
	'Routine' shift changeover practice	
	'High risk' work shift changeover procedure	
	Restricted and specialist tasks and work locations are communicated effectively	
HSSE		
Investigation	Procedure for investigating various levels of violations is in place	
Audits	Audit, analysis, reporting, and trend reporting	
	Measurement of site specific HSSE and operational statuses on site recorded at the WMC	
Competency	Competency is defined, assessed, and recorded	
	Restricted specialist tasks and work locations are monitored and reported on for violations	
	Competency is Work Control managed	
Safety	Safety notices identified, assessed, raised, notified, and removed	
	Risks are reduced or removed	
	Dual verification is identified and managed	
	Shift change and other logs are audited	
Operations		
Operational statuses	Plant operating statuses are reviewed and communicated	
	Plant isolation and quarantining of assets is identified and managed	
	Plant operational risks are identified, recorded, escalated, and managed	
Standard Operating Procedure (SOPs)	SOPs are implemented in the operational environment	
Escalation	Escalation scenarios are practiced	
Emergency Operating Procedure (EOPs)	EOPs are implemented in the operational environment	
Tools and equipment certification	Certification and provision of specialist tools is managed	
	Certification of equipment is audited	
	Certification non-compliance is managed	
Maintenance statuses	Maintenance report analysis is carried out routinely	
	Legacy maintenance is managed	
	Non-KPI maintenance is managed	



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Training		
Organization		
Requirements	'Gap analysis' of trade and task training is identified, prioritized, recorded, funded, carried out, checked/confirmed, tracked, and escalated	
HSSE		
HSSE	HSSE training for all staff is mandated and managed	
HR	HR and 'new start' focused inductions are approved	
	Compliance with HR and 'new start' inductions is managed and reported	
	Refresher HR and safety focused training is managed effectively	
Technical & Non-Technical		
Technical	Periodic (weekly) safety training is managed and carried out	
	Site, system, and asset awareness is identified, prioritized, carried out, and recorded	
	Technical delivery staff are aware of restricted specialist skill tasks and work locations	
Non-technical	Formal HR training matrix for Supervisors and Managers is implemented	
	Staff development is identified and incorporated in Succession Plans	
Change Management		
Documents	A document control procedure is implemented and maintained	
	Compliance with the organization document change management policy and procedure is audited	
Site, assets	Change management to site assets and systems is defined, identified, and monitored	
	Changes to site assets and systems are updated in reference documents, drawings, and site drawings	
	Changes to site assets and systems are incorporated into the maintenance plans and procedures	
Staff	Staff retention calculation is reported	
	Succession planning is managed	
HSSE		
Standards		
Procedures	New staff is made aware of the HSSE policies and procedures	
	HSSE data and statistics are measured, analyzed, and reported	
	Specialist skills licenses of the technical team monitored and maintained	
Protections and Powers		



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Responsibilities	Hierarchy of responsibility for HSSE is recorded and communicated to the workforce	
	Organization provides independent HSSE support for the technical teams	
Incident management	Temporary removal of persons involved or affected in a HSSE incident or issue	
	HSSE incident or issue investigations procedure	
	Authorization process for making temporary and permanent changes following a HSSE incident or issue	
Equipment		
Checks	Checks of tools and equipment are recorded on site	
	Checks of tools and equipment are reported to the WMC and HSSE teams	
	Condition of tools and equipment on site is inspected, recorded, quarantined and replaced, audited, and compliance checked by management	
Training	Updates on correct use of equipment communicated and recorded are received by the technical workforce	
	Equipment operating and safety updates are incorporated in to documents and the Computerized Maintenance Management System (CMMS)	
	Technical bulletins are identified, and information disseminated	
	Competency for restricted and specialist tasks and work locations is periodically assessed	
Work practices		
Requirements	Risk Assessments and Method Statements (RAMS) and Job Hazard Analysis (JHA) writers are trained and skilled	
	Point of Work Risk Assessment (POWRA) Tool-Box Talks (TBTs) resources are provided to the workforce and reported to the WMC	
	POWRA TBTs are audited	
	Permit to Work (PTW) is defined and managed	
Staff		
Staff	Staff is made aware of the symptoms and associated risks of medical conditions caused by working practices or environments	
	How experiences of ill health caused by the working practices or environment is reported and mitigated by the staff	
	Skills Registers updated periodically and mid-cycle	



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	Unauthorized use of tools and restricted access areas monitored, reported, and managed	
Work Control		
Organization		
Operational procedures	Procedures are applied to all aspects of the WMC operation	
	Action Plans are created from audits and reviewed periodically for implementation	
	Asset Management is an integral part of the operations and maintenance activities and procedures	
	Work Orders highlight restricted specialist tasks and work locations	
Business procedures	Connectivity between maintenance costs and the finance team is effective	
	Connectivity between maintenance operations and business operations is effective	
	NMA&FM Developing Maintenance Procedures Guide or similar is adopted	
Resource Management		
External Work	Work Control procedures implementation of sub-contractors is aligned with the maintenance contractors	



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Attachment 2 – Formality of Maintenance Performance Procedure flowchart

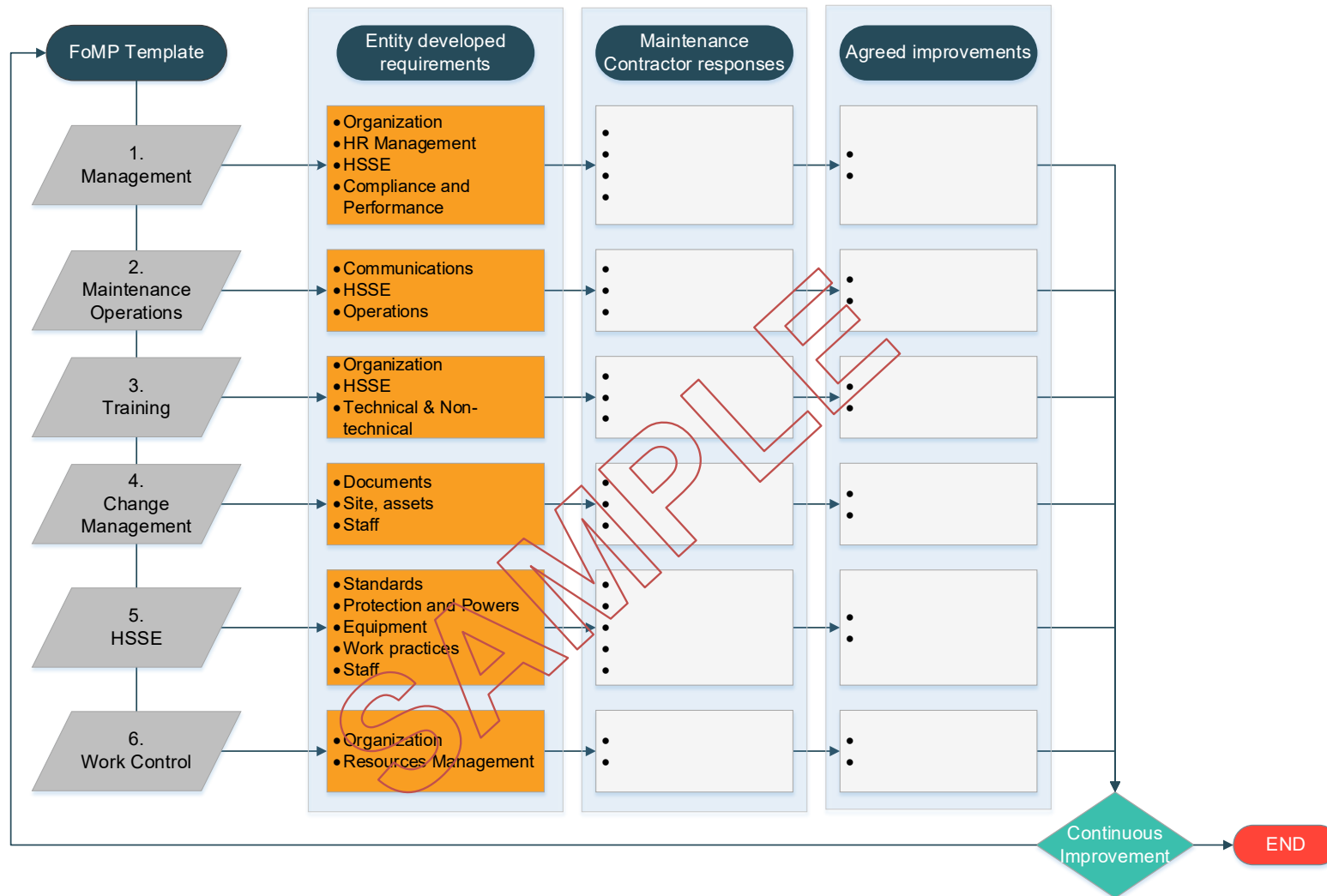


Figure 1: Formality of Maintenance Performance Procedure flowchart