Defense Health Agency

TECHNICAL MANUAL

SUBJECT: Defense Medical Logistics Standard Support-Facilities Management
(DMLSS-FM) Volume 5: Preventive Maintenance (PM) Procedures Module

References: See Enclosure 1.

1. <u>PURPOSE</u>. This Defense Health Agency-Technical Manual (DHA-TM), based on the authority of References (a) and (b), and in accordance with the guidance of References (c) through (h), establishes the Defense Health Agency's (DHA) procedures for managing Preventative Maintenance (PM) data in the Military Health System's (MHS) Computer Aided Facility Management (CAFM)/Computerized Maintenance Management System (CMMS) of record, Defense Medical Logistics Standard Support-Facilities Management (DMLSS-FM).

2. <u>APPLICABILITY</u>. This DHA-TM applies to:

   a. The DHA and DHA components (activities under the authority, direction, and control of DHA).

   b. All personnel to include: assigned or attached active duty and reserve members, federal civilians, members of the Commissioned Corps of the Public Health Service, contractors (when required by the terms of the applicable contract), and other personnel assigned temporary or permanent duties at DHA and DHA Components.

3. <u>POLICY IMPLEMENTATION</u>. It is DHA's instruction pursuant to References (b) and (d) to:

   a. Implement Sustainment, Restoration, and Modernization policy: administer the Defense Health Program (DHP) Facilities Operations and Maintenance (O&M) budgets; and perform financial oversight at an enterprise level. This will ensure consistency, optimize performance, and meet strategic priorities across the MHS facilities portfolio consistent with guidance from the Assistant Secretary of Defense for Health Affairs (ASD(HA)).

b. Develop consistent standards for medical facility management necessary for programmatic oversight of the DHP.

c. Establish DMLSS-FM as the database of record for all MHS facility inventory, maintenance, requirements, and project data including related financial data.

4. <u>RESPONSIBILITIES</u>. See Enclosure 2.

5. <u>PROCEDURES</u>. See Enclosure 3.

6. <u>PROPONENT AND WAIVERS</u>. The proponent of this publication is the Deputy Assistant Director (DAD), Financial Operations (FO). When Activities are unable to comply with this publication the Activity must request a waiver that must include a justification, to include an analysis of the risk associated with not granting the waiver. The activity director or senior leader will submit the waiver request through their supervisory chain to DAD, FO, to determine if the waiver may be granted by the Director, DHA or their designee.

7. <u>RELEASABILITY</u>. **Cleared for public release.** This DHA-TM is available on the Internet from the Health.mil site at: https://health.mil/Reference-Center/Policies and is also available to authorized users from the DHA SharePoint site at: https://info.health.mil/cos/admin/pubs/SitePages/Home.aspx.

8. <u>EFFECTIVE DATE</u>. This DHA-TM:

a. Is effective upon signature.

b. Will expire 10 years from the date of signature if it has not been reissued or cancelled before this date in accordance with Reference (c).

/S/
RONALD J. PLACE
LTG, MC, USA
Director

Enclosures
   1. References
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ENCLOSURE 1

REFERENCES

(a) DoD Directive 5136.01, "Assistant Secretary of Defense for Health Affairs (ASD(HA))," September 30, 2013, as amended
(b) DoD Directive 5136.13, "Defense Health Agency (DHA)," September 30, 2013
(c) DHA-Procedural Instruction 5025.01, "Publication System," August 24, 2018
(d) DHA, Version 6, "Plan 3: Implementation Plan for the Complete Transition of Military Medical Treatment Facilities to the Defense Health Agency," August 12, 2019[1]
(e) DoD Directive 7045.14, "The Planning, Programming, Budgeting, and Execution (PPB&E) Process," January 25, 2013, as amended
(f) DoD Instruction 6015.17, "Military Health System (MHS) Portfolio Management," January 13, 2012, as amended[2]
(g) DHA-Procedural Instruction 4165.01, "Real Property Asset (RPA) Management," June 22, 2017
(h) MHS Real Property Systems Standards (RPSS)[3]
(i) DHA SOP, "Development, Implementation, and Sustainment of Reliability Centered Maintenance (RCM) and Condition Based Monitoring (CBM) V1," August 21, 2020, as amended[4]

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[1] This reference can be found by calling Strategic Planning and Functional Integration mainline at: 703-681-1552
[2] This reference can be found at:
https://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodi/601517p.pdf?ver=2019-01-15-123458-147
[3] This reference can be found at: www.rpss.facilities.health.mil and can only be accessed with an approved Max.gov account
[4] This reference is located at
https://community.max.gov/download/attachments/2170859655/SOP_Reliability%20Centered%20Maintenance%20and%20Condition%20Based%20Monitoring_V1_20200821.pdf?api=v2 and can only be accessed with an approved Max.gov account.

ENCLOSURE 2

RESPONSIBILITIES

1. <u>DIRECTOR, DHA</u>. The Director, DHA, will implement policy, guidance, and instructions consistent with References (b) through (h).

2. <u>DAD, FO</u>. The DAD, FO will:

   a. Prepare and submit program and budget requirements for sustainment, restoration, and modernization pursuant to guidance of the ASD(HA) for the DoD Planning, Programming, Budgeting, and Execution process.

   b. Provide programmatic oversight of the DHA O&M appropriations in accordance with instructions issued by the ASD(HA), fiscal guidance issued by the Under Secretary of Defense (Comptroller)/Chief Financial Officer, and applicable law.

   c. Prioritize and distribute O&M DHP funds, as recommended by DHA-FE, to the DHA assigned facility activity or Agent, as appropriate, for obligation and execution.

3. <u>CHIEF, DHA FACILITIES ENTERPRISE (DHA-FE)</u>. The Chief, DHA-FE, must:

   a. Establish DMLSS-FM data standards for effective CAFM/CMMS management and operations in accordance with References (f) and (g).

   b. Monitor medical facilities management operations to ensure conformance with established standards.

   c. Program and budget for CAFM/CMMS maintenance requirements to be submitted by the Director, DHA, for the DoD Planning, Programming, Budgeting, and Execution process.

   d. Develop and implement training for DHA-directed facilities management data management standards and reporting.

4. <u>DIRECTORS, DHA MARKETS, SMALL MARKET AND STAND-ALONE MEDICAL TREATMENT FACILITY ORGANIZATION (SSO), AND DEFENSE HEALTH AGENCY REGIONS (DHAR)</u>. The Directors, DHA Markets, SSO, and DHARs will coordinate with DHA-FE regarding Market/SSO/DHAR-focused facilities requirements via the Market/SSO/DHAR-based Facilities Liaison as prescribed in Reference (d) as follows:

   a. Serve as a communication contact point for disseminating information between the Market/SSO/DHAR and DHA-FE.

b. Represent the Market/SSO/DHAR goals and objectives.

c. Provide Market/SSO/DHAR facilities status updates, forward Director's Critical Information Requirements, and coordinates Market/SSO/DHAR-driven demand signals.

d. Support DHA-FE led Market/SSO/DHAR-based facilities master planning efforts.

5. <u>DIRECTORS, MILITARY MEDICAL TREATMENT FACILITIES (MTF), DENTAL TREATMENT FACILITIES (DTF), AND VETERINARY TREATMENT FACILITIES (VTF)</u>. The Directors, MTFs, DTFs, and VTFs will:

a. Ensure that Facility Inventory Records include all assigned permanent, semi-permanent, temporary (including relocatable buildings), MTFs, DTFs, and VTFs tenants in a Military Department building, and leased facility.

b. Ensure that all Facility Room Inventories properly reflect MTF, DTF, or VTF conditions and appropriate occupants and that any revisions are coordinated with Space Managers, Quality Assurance Evaluators, Janitorial Contractors, Maintenance Contractors, Facility Managers, Medical Maintenance staff, and other support staff.

c. Ensure that all Facility Systems Inventory records include all existing, new and replacement Real Property Installed Equipment (RPIE) equipment, and record information, at a minimum, to reflect Real Property System Standard (RPSS) requirements.

d. Ensure all preventive maintenance procedures include existing, new, and replacement RPIE equipment, and that tasks and schedules meet all applicable regulatory requirements.

e. Ensure all preventive maintenance work orders are scheduled to include existing, new, and replacement RPIE equipment and that tasks and schedules meet all applicable regulatory requirements.

f. Ensure all DMLSS Work Requests are properly and completely entered, maintained, and closed out in accordance with established standards and as directed by DHA-FE.

g. Initiate DMLSS Requirements for any unfunded liability/deficiency related to sustainment, restoration, or modernization that may be identified as a result of formal condition assessments, BUILDER work items, engineering studies, architect/engineer analysis, informal inspections, commander's walk-through, and/or maintenance technician observations.

ENCLOSURE 3

PROCEDURES

1. <u>PM PROCEDURES MODULE</u>

   a. <u>Overview</u>. The DMLSS-FM PM Procedures Module is a repository of the maintenance tasks utilized in the PM of the RPIE in the database, and is the foundation used to build the PM program. A maintenance procedure contains a list of tasks performed during recurring scheduled maintenance on RPIE. The RPSS, contained within <u>Max.gov</u>, is the basis for the default maintenance procedures contained within DMLSS-FM. The RPSS is accessible per Reference (f).

      (1) Maintenance procedures will be reviewed and validated annually by the Facility Manager and Real Property Maintainer; to include frequency and tasks for each item or group of items, to ensure accuracy in accordance with the RPSS. It is important to maintain current maintenance procedures as The Joint Commission will review a percentage of procedures being used during inspections. Each Activity will have slightly different circumstances due to geographical location, temperature, weather, climates, etc. When an RPSS default procedure, contained in DMLSS, does not meet the necessary maintenance requirements, a Local Procedures (LPs) or a Manufacturer Procedure can be created and utilized.

      (2) If an RPIE does not have an annually occurring PM, a task must be added to the least frequently occurring PM to instruct the technician to verify the tasks during the PM.

   b. <u>Creating a Maintenance Procedure</u>. Any procedure classified as a default cannot be modified in DMLSS. These records are identified by a check mark in the DMLSS Wide field. A new procedure can be created from scratch or by using the Add Like function from an existing default procedure. Refer to the DMLSS PM Procedures Module Standard Operating Procedure for creating a new Maintenance Procedures.

      (1) There are several methods from which a PM procedure may be derived. The table below contains a list of possible sources.

<p align="center"><u>Table</u>. <u>Sources for Preventive Maintenance Procedures</u></p>

RPSS	Real Property System Standard
NFPA	National Fire Protection Agency
LP	Local Procedure
MR	Manufacturer Recommendations
RS	RSMeans
DD	DMLSS-FM Default
RCM	Reliability Centered Maintenance Program

(2) If a PM procedure already exists in DMLSS, but the source is unknown, assume it is a DMLSS default; however, once that procedure has been modified, it then becomes an LP. As a maintenance procedure is being created, follow the details in the guidance below:

(a) LPs may be created or modified. The goal is to have all PM procedures at a site be LPs. This will ensure the maintenance technicians are reviewing the tasks for the local equipment to include any special circumstances that may be present.

(b) Some tasks call for a daily procedure. In this case, set up the maintenance procedures as daily, but the PM procedures as weekly; therefore, creating a monthly PM including the daily maintenance procedures for each week, preventing lengthy 28 to 31 day logs. The daily maintenance procedures should include enough room for 5 or 7 days' worth of data, depending on the operations at the facility.

(c) Only a prime RPIE record is scheduled for maintenance. Related RPIE and their associated tasks should be included on the tasks of all maintenance procedures. For example, if an air handling unit (AHU) has a motor and the motor has maintenance, the maintenance on the motor should be included on the AHUs maintenance procedures.

2. DMLSS-FM STANDARDS FOR PM

a. Detail Tab For Procedure Identification (ID). The Procedure ID is segmented to indicate five separate identifiers about the procedure: nomenclature, procedure type, frequency, maintenance driver, and what record it ties to in the RPSS Portal. The maximum character length for the Procedure ID is 26. How the PM procedure naming convention incorporates these five segments is shown in the example below:

PM Procedure ID
AHU-P-10Y-UFC-R12345

Procedure ID Segments				
1	2	3	4	5
AHU	P	10Y	UFC	R12345

Procedure ID Segments Key:	
1.	Nomenclature Unique Identifier (AHU=Air Handling Unit)
2.	Procedure Type (P=Preventive Maintenance or O=Operations Check)
3.	Frequency (10Y=every ten year)
4.	Maintenance Driver (UFC=Unified Facilities Criteria)
5.	RPSS Record ID (R12345), where the "R" is followed by the RPSS Portal Record ID

Figure. Procedure Identification Naming Convention Example

(1) In order to accommodate procedure tasks sourced from manufacture standards or local maintenance technicians' expertise, the fifth section of the Procedure ID should be modified as follows:

(a) Manufacturer as the source of the Procedure would be MR1234 where M represents Manufacturer and the R and sequential numbers correspond to the RPSS Record ID.

(b) Local Technician's expertise as the source of the Procedure would be LR1234 where L represents Local and the R and sequential numbers correspond to the RPSS Record ID.

(2) When a required maintenance procedure does not exist in the RPSS, a manufacturer or LP can be added in DMLSS. Use the procedures identified in this enclosure to create the new Procedure ID. Modify section 5 of the Procedure ID to reflect:

(a) Manufacturer procedure: MFG (AHU-P-10Y-ASHRAE-MFG)

(b) Local procedure: LOCAL (AHU-P-10Y-ASHRAE-LOCAL)

(3) For facilities that have had Reliability Centered Maintenance (RCM) implemented and procedures reviewed, added, and/or edited the final set of characters should be labeled "RCM".

(4) On a new facility, maintenance procedures from Manufacturer's Recommendations will be the first resource. Whenever a procedure is created or reviewed/validated, the first line of the task list will state the name of the person that performed the validation and the date of completion.

(a) <u>Frequency</u>. Select the Frequency that applies to the Maintenance Procedure. Suggested frequencies are found on the RPSS Portal.

(b) <u>Specialty Shop</u>. Select the Specialty Shop that is responsible for the Maintenance Procedure. Refer to the RPSS for recommendations. Additional shops can be added in the System Services Table Maintenance Utility.

(c) <u>Estimated Labor Hours</u>. A valid entry must be captured in the estimated labor hours field so when the Maintenance Procedure is selected on a PM Schedule, there would be no errors, and the scheduling of the PM can proceed. Suggested labor hours are found on the RPSS Portal.

(d) <u>Estimated Material Cost</u>. If known, enter the estimated material cost(s). This field is optional.

b. <u>RPIE Data Tab</u>

(1) <u>Facility System</u>. Select the Facility System to which the RPIE belongs. A list of Facility Systems belonging to RPIE are found in the RPSS. The hierarchies on the PM procedure and the RPIE must be identical.

(2) <u>Facility Subsystem</u>. Select the Facility Subsystem to which the RPIE belongs. A list of Facility Subsystems belonging to RPIE are found in the RPSS. The hierarchies on the PM procedure and the RPIE must be identical.

(3) <u>Assembly Category</u>. Select the Assembly Category to which the RPIE belongs. A list of Assembly Categories belonging to RPIE is found in the RPSS. The hierarchies on the PM procedure and the RPIE must be identical.

(4) <u>Nomenclature</u>. Select the Nomenclature to which the RPIE belongs. A list of RPIE Nomenclatures is found in the RPSS. The hierarchies on the PM procedure and the RPIE must be identical.

(5) <u>New or Revised Nomenclature</u>. Any authorized RPSS user may initiate an "Add/Edit RPIE Request" within the RPSS. This request will be reviewed and approved by DHA-FE.

    c. <u>Tasks Tab</u>

(1) The individual tasks are stored in the Tasks Tab. The Facility Manager will review all PM tasks annually with the Real Property Maintainer to ensure correct procedures are captured. The procedures must be compared with the most current version of the RPSS at each review. Editing a task makes the procedure a local procedure unless it is being edited based on the results of a PM Optimization review conducted during the implementation of an RCM program, as described in Reference (i), then it becomes "RCM". The procedures not labeled "RCM" should be compared with the most current version of the RPSS at each review. Procedures labeled "RCM" should not be updated to reflect RPSS.

(2) The tasks should be validated annually by the maintenance technician, ideally while performing a PM. The technician should make any recommended edit changes to the task as appropriate. The Maintenance Manager and the Facility Manager should review all significant changes before being adopted and actually changed in DMLSS.

(3) Annual preventative maintenance tasks should include semi-annual, quarterly, and monthly PMs for the equipment. For maintenance compliance, each task must be reflected on the next scheduled maintenance. For instance, monthly tasks should be reflected on quarterly tasks; monthly and quarterly tasks should be reflected on semi-annual tasks; and monthly, quarterly, and semi-annual tasks should be reflected on annual tasks. The specialty shops designated must be the same on each PM schedule for the subordinate roll-up process to work successfully.

(4) The procedures found in the RPSS should be used as a guide to develop site-specific procedures. Tasks will be established based on equipment O&M manuals, National Fire Protection Agency (NFPA), Unified Facilities Criteria (UFC), industry standards, and other maintenance publications to include RSMeans. Maintenance intervals and activities should be based on national/state/local regulations, best business practice, environmental conditions, and the specific use of the equipment/facility.

ENCLOSURE 3

d. <u>Safety Precautions/Regulatory Requirement Tab</u>. Any Occupational Safety and Health Administration, NFPA, or other safety rules or regulations that pertain to this PM procedure are documented in the "Safety Precautions/Regulatory Requirement Tab." A list of Safety Precautions and Regulatory Requirements organizations is found within the RPSS in the World Class Toolkit.

e. <u>Tools and Material Tab</u>. The maintenance technician must add tools and supplies needed to perform PM procedures. Suggested tools and materials are found in the RPSS.

GLOSSARY

PART I. ABBREVIATIONS AND ACRONYMS

AHU	Air Handling Unit
ASD	Assistant Secretary of Defense
CAFM	Computer Aided Facility Management
CMMS	Computerized Maintenance Management System
DHA	Defense Health Agency
DHA-TM	Defense Health Agency-Technical Manual
DHP	Defense Health Program
DHAR	Defense Health Agency Regions
DMLSS-FM	Defense Medical Logistics Standard Support-Facilities Management
DTF	dental treatment facility
FE	Facilities Enterprise
HA	Health Affairs
ID	Identification
LP	Local Procedure
MHS	Military Health System
MTF	military medical treatment facility
NFPA	National Fire Protection Agency
O&M	Operations and Maintenance
PM	Preventive Maintenance
RCM	Reliability Centered Maintenance
RPIE	Real Property Installed Equipment
RPSS	Real Property System Standard
SSO	Small Market and Stand-Alone Medical Treatment Facility Organization
UFC	Unified Facilities Criteria
VTF	veterinary treatment facility

PART II. DEFINITIONS

Unless otherwise noted, these terms and definitions are for the purposes of this DHA-TM.

BUILDER. The BUILDER Sustainment Management System, referred to as "BUILDER" is a web-based software application to help Facilities Management decide when, where and how to best maintain building infrastructure.

facility. A building, structure, or linear structure whose footprint extends to an imaginary line surrounding a facility at 5 feet from the foundation that, barring specific direction to the contrary such as a utility privatization agreement, denotes what is included in the basic record for the facility (e.g., landscaping, sidewalks, utility connections). This imaginary line is commonly referred to as the "5-foot line". A facility will have a Real Property Unique Identifier received from the Real Property Maintainer and entered into a Service real property inventory system as a unique real property record.

internal control. A method or process that provides an organization's management reasonable assurance that the following objectives are being achieved: Effectiveness and efficiency of operations; reliability of financial reporting; and compliance with applicable laws and regulations. Synonymous with management control, internal control helps government program managers achieve desired results through effective stewardship of public resources.

PM Optimization. A gap analysis used in the implementation of RCM to compare the engineered maintenance strategy (designed during the RPIE failure modes analysis) to the existing strategy (existing PM tasks and frequencies). This is a process where PM tasks are created or re-engineered, targeting specific failure modes or deleted if no longer required and are not statutory or regulatory in nature.

RCM program. A formal program, developed and executed in accordance with Reference (i). RCM is the process of determining the most effective maintenance approach, which includes the use of Condition Based Monitoring (also known as Predictive Maintenance), techniques such as Vibration Analysis, Infrared Thermography, Ultrasonic, Motor Current Analysis, Oil Analysis, etc., to detect defects in the most efficient and economical way possible to optimize the use of limited resources while maintaining or improving reliability.

real property. Land and improvements to land (e.g., buildings, structures, and linear structures). See facility definition above.

Real Property Maintainer. The person or persons who maintain the specific RPIE. This person can be civil service, military personnel, or contractor.

RPIE. An item of equipment that is affixed and built into a facility as an integral part of that facility. To qualify as RPIE, the equipment must be necessary to make the facility complete, and if removed, would destroy or severely reduce the designed usefulness and operation of the facility. RPIE costs are included as a funded initial construction or renovation cost. RPIE may be accounted for as a real property equipment asset record, but not as a separate facility record in

the RPIE. RPIE includes such items as control systems, heating, cooling, electrical, emergency lighting, etc. For all potential RPIE that could be utilized at a MTF, DTF, or VTF, the MHS RPSS as cited in Reference (h) provides standardized default information including, but not limited to, nomenclature, preventive maintenance procedures, maintenance drivers, and/or maintenance frequencies.