



Defense Health Agency

ADMINISTRATIVE INSTRUCTION

NUMBER 4000.03

December 30, 2022

DIRECTOR, J-8

SUBJECT: Reliability Centered Maintenance Program

References: See Enclosure 1

1. PURPOSE. This Defense Health Agency-Administrative Instruction (DHA-AI), based on the authority of References (a) and (b), in accordance with the guidance of References (c) through (g), establishes the Defense Health Agency's (DHA) procedures for the implementation and sustainment of a Reliability Centered Maintenance (RCM) Program, including Condition Based Maintenance (CBM), for DHA sustained facilities.

2. APPLICABILITY. This DHA-AI applies to the DHA, DHA Components (activities under the authority, direction, and control of the DHA), and all personnel to include: assigned or attached active duty and reserved members, federal civilians, contractors (when required by the terms of the applicable contract), and other personnel assigned temporary or permanent duties within the DHA and DHA Components.

3. POLICY IMPLEMENTATION. It is the DHA's instruction pursuant to References (b) and (d) - (f) to:

a. Implement policy, administer the Defense Health Program Facilities Operations and Maintenance (O&M) budgets, perform financial oversight, and manage facilities operations at an enterprise level to ensure consistency, optimize performance, and meet strategic priorities across the DHA's facilities portfolio consistent with public law and guidance from the Assistant Secretary of Defense for Health Affairs (ASD(HA)).

b. Develop consistent standards for implementation of a centralized RCM/CBM program at DHA sustained facilities to improve building systems reliability and decrease costs.

4. RESPONSIBILITIES. See Enclosure 2.

5. PROCEDURES. See Enclosure 3.

6. PROPONENT AND WAIVERS. The proponent of this publication is the Director, Financial Operations (J-8). When Activities are unable to comply with this publication the activity may request a waiver by providing justification, to include an analysis of the expected benefits and must include a formal review by the activity's senior legal officer. The activity director or senior leader will submit the waiver request through their supervisory chain to the Director, J-8 to determine if the waiver may be granted by the Director, DHA or their designee.

7. RELEASABILITY. **Cleared for public release**. This DHA-AI 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. EFFECTIVE DATE. This DHA-AI:

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).

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RONALD J. PLACE
LTG, MC, USA
Director

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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, as amended.
- (c) DHA-Procedural Instruction 5025.01, “Publication System,” April 1, 2022
- (d) DoD Instruction 6015.17, “Military Health System (MHS) Facility Portfolio Management,” January 13, 2012, as amended
- (e) DHA “Plan 3: Implementation Plan for the Complete Transition of Military Medical Treatment Facilities to the Defense Health Agency,” Version 6, August 12, 2019¹
- (f) United States Code, Title 10, Section 1073c
- (g) Ready Reliable Care–High Reliability Organization (HRO) Communications Toolkit, July 2021²
- (h) DHA SOP, “Development, Implementation, and Sustainment of Reliability Centered Maintenance (RCM) and Condition Based Monitoring (CBM),” 21 August 2020³

¹ This reference can be found at:
<https://community.max.gov/download/attachments/1645830822/DHA%20Implementation%20Plan%203%20v6.pdf?api=v2>

² This reference can be found at: <https://health.mil/Military-Health-Topics/Access-Cost-Quality-and-Safety/Quality-And-Safety-of-Healthcare/Ready-Reliable-Care>

³ This reference can be found at:
https://community.max.gov/download/attachments/2170859655/SOP_Reliability%20Centered%20Maintenance%20and%20Condition%20Based%20Monitoring_V1_20200821.pdf?api=v2

ENCLOSURE 2
RESPONSIBILITIES

1. DIRECTOR, DHA. The Director, DHA, will implement policy, guidance, and instructions consistent with References (d) through (g) for DHA sustained facilities.

2. DIRECTOR, J-8. The Director, J-8 will:

a. Prepare and submit program and budget requirements for facilities 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 for facilities sustainment 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 Defense Health Program O&M funds, as recommended by the DHA Facilities Enterprise (DHA-FE), to DHA Components or their Agent, as appropriate, for obligation and execution.

3. CHIEF, DHA-FE. The Chief, DHA-FE, will:

a. Establish organizational controls for centrally managing, programming, budgeting, and funding the development and implementation of the DHA RCM program.

b. Ensure RCM/CBM is properly sustained within each DHA Component's normal sustainment budget after initial implementation.

4. CHIEF, DHA-FE FACILITIES OPERATIONS BRANCH. The Chief, DHA-FE Facilities Operations Branch, will:

a. Designate an RCM Program Manager to lead the DHA RCM/CBM program.

b. Establish standards for implementation, continuous execution, and management of an effective RCM/CBM program in accordance with References (d) through (g).

c. Centrally manage, program, budget, fund, and execute the development and implementation of the DHA RCM/CBM program.

d. Once RCM is implemented at a given site, monitor and maintain oversight of the ongoing RCM/CBM site program to ensure conformance with established standards within the Component's normal sustainment budget.

e. Develop and implement RCM/CBM training for DHA Facilities staff.

5. DIRECTORS, DIRECT REPORTING ORGANIZATIONS (DRO). The DRO Directors will coordinate with DHA-FE regarding DRO-focused facilities requirements via the DRO based Facilities Liaison as prescribed in Reference (e) as follows:

a. Serve as a communication contact point for disseminating information between the DRO and DHA-FE.

b. Represent the DRO's goals and objectives related to RCM/CBM.

6. FACILITY MANAGERS (FM), DHA. The FMs, DHA will:

a. Develop and implement an RCM program including CBM in accordance with established standards and as directed by DHA-FE.

b. Continuously execute RCM and CBM in accordance with established standards and as directed by DHA-FE.

ENCLOSURE 3

PROCEDURES

1. REQUIREMENTS. The RCM program, including CBM technology, will be integrated into the existing maintenance and operations processes for selected DHA facilities.

a. Per Reference (f), DHA assumed the administration of all DoD Military Medical Treatment Facilities and will assume administration of additional research and development and public health facilities previously under the authority, direction, and control of the Military Departments.

b. The DoD is committed to continuous improvement of the care delivered to beneficiaries within the Military Healthy System (MHS).

(1) Reference (d) emphasizes the importance of incorporating industry best practices into all aspects of MHS operations, while taking into consideration total cost of ownership.

(2) The Ready Reliable Care–High Reliability Organization (HRO) approach, Reference (g), supports the MHS quadruple aim of better health, better care, lower cost, and improved readiness. High reliability helps the MHS manage system-wide processes to rule out potential errors, eliminate sources of waste, and identify tools to deliver better care. High reliability increases standardization to deliver consistent high-quality care from one facility to the next and one patient to the next.

(3) To help meet these requirements, the FM will integrate RCM into their maintenance program in accordance with the Implementation Strategy and Process in paragraph 2 and 3. Implementation of RCM has been proven to lead to lower facility costs and higher reliability.

(4) RCM is a logical, structured process used to determine the optimal failure management strategies for any system, based on system reliability characteristics and the intended operating context. RCM is used to determine what failure management strategies should be applied to ensure a system achieves the desired levels of safety, reliability and environmental soundness in the most cost-effective manner. RCM strives for continuous improvement in the maintenance process helping to achieve a HRO. The goal is to perform the proper maintenance at the proper point in time.

2. IMPLEMENTATION STRATEGY. It is not possible to implement RCM at all facilities, all at once, nor is it economically feasible or practical to implement RCM at all facilities within the DHA due to their differences in size, equipment types, and mission. Therefore, the DHA-FE will provide annual guidance and updates identifying the sites scheduled for RCM implementation during the upcoming fiscal year based on the following criteria:

a. Return on Investment (ROI). ROI must be considered in the site selection for RCM/CBM implementation. Initially, implementation will focus on larger facilities since the initial cost to implement can be recovered more quickly with the savings from a fully operational RCM/CBM program. Later, RCM/CBM will be implemented in other selected DHA facilities based on criticality, to include Military Medical Treatment Facilities within Small Market and Stand-Alone Military Medical Treatment Facility Organizations, medical research facilities, and medical research laboratories. The DHA-FE is also developing a standardized implementation process to allow a quicker and less expensive RCM implementation at smaller facilities with less upfront cost. This will make a more favorable ROI for those facilities possible.

b. New Facilities. Newly built (or renovated) facilities with new equipment are ideal for RCM/CBM implementation because this will allow the new equipment to be properly maintained from the beginning. It is difficult to show ROI at these sites as there is no history to compare, but past experience has shown reliability and life expectancy of the equipment will be greater if RCM/CBM is implemented early in the equipment life cycle.

c. Timing. Integration of RCM/CBM into an existing O&M program at any facility is difficult and time consuming. Generally, the fiscal return on contract modifications based on cost savings from a fully operational RCM/CBM program is low. However, if RCM/CBM implementation and sustainment are included in the scope of a new O&M contract with a requirement for potential contractors to describe how they will implement RCM/CBM, along with the proposed recurring maintenance (preventive maintenance) costs for each year of the contract, it becomes much easier, to determine the resultant cost savings, and there is less risk to the Government.

3. IMPLEMENTATION PROCESS. DHA facilities selected for RCM/CBM implementation will be notified in advance, and the RCM Program Manager will assist the local FM staff in understanding, training, and implementing the RCM program.

a. The major steps necessary to implement a successful RCM program will be in accordance with Reference (h), to include the following:

(1) Real Property Installed Equipment (RPIE) verification and documentation. The RCM Program Manager will create a site-specific RPIE list of items to include in the RCM program. The site RCM Implementation Team will identify and verify all RPIE attribute data necessary to determine asset capabilities, failure modes, and criticality and to ensure attribute data and associated information is accurately documented in the Defense Medical Logistics Standard Support-Facilities Management/LogiCole-Facilities Management, commonly referred to as “DMLSS-FM/LogiCole-FM” system.

(2) Equipment criticality assessment. The site implementation team will perform the Equipment Criticality Assessment, which is a process for determining the relative ranking, or criticality, of RPIE items in a system using the standardized criticality assessment in the Real Property Systems Standard.

(3) Development of an enhanced maintenance plan (EMP). The DHA-FE will create an EMP and provide it to the site. The EMP is the engineered maintenance strategy designed to improve the efficiency and effectiveness of maintenance operations by analyzing each system/component based on criticality, failure modes, and available technology to identify/prevent those failure modes. The EMP has been standardized enterprise wide and published within the Real Property Systems Standard. The site RCM Implementation Team will perform a preventive maintenance optimization gap analysis and then submit a detailed report of findings to the local DHA site FM and the DHA RCM Program Manager for review

(4) Establishing equipment baseline measurements. Upon completion of the EMP, a baseline measurement of the RCM/CBM equipment will be performed by the site implementation team to establish their initial scientific/reliability-based measurements using the CBM techniques identified in the EMP.

b. The RCM Program Manager will ensure sites have qualified personnel on the RCM Implementation Team to perform the RCM/CBM development and implementation functions.

4. SUSTAINMENT PROCESS. DHA facilities selected for RCM/CBM implementation will be required to sustain the RCM/CBM program after it is implemented in accordance with Reference (h), s to include the following:

a. The Component's FM will ensure necessary reports, to include fault data report and case studies, are submitted monthly by the site for proper tracking, trending, and analyzing RCM success.

b. The Component's FM will ensure sites have the qualified personnel in-house (or through their O&M contractor) to perform the RCM/CBM data collection and analyses functions required within the Component's normal sustainment budget.

c. The RCM Program Manager will assist the Component's FM staff in the sustainment of the RCM program to include providing reach back support as needed.

GLOSSARY

PART I. ABBREVIATIONS AND ACRONYMS

ASD(HA)	Assistant Secretary of Defense for Health Affairs
CBM	Condition Based Maintenance
DHA	Defense Health Agency
DHA-FE	Defense Health Agency Facilities Enterprise
DHA-AI	Defense Health Agency-Administrative Instruction
DRO	Direct Reporting Organizations
EMP	Enhanced Maintenance Plan
FM	Facility Manager
HRO	high reliability organization
J-8	Financial Operations
MHS	Military Health System
O&M	Operations and Maintenance
RPIE	Real Property Installed Equipment
RCM	Reliability Centered Maintenance
ROI	Return on Investment

PART II. DEFINITIONS

CBM. CBM is the application and integration of appropriate processes, technologies, and knowledge-based capabilities to improve the reliability and maintenance effectiveness of facility systems and components. At its core, CBM is maintenance performed based on evidence of need provided by RCM analysis and other enabling processes and technologies. CBM uses a system engineering approach to collect data, enable analysis, and support the decision-making processes for system acquisition, sustainment, and operations.

DROs. Direct Reporting Markets, Small Market and Stand-Alone Medical Treatment Facility Organization, and Defense Health Agency Regions reporting to the DHA.

HRO. HRO are organizations that operate in complex, high-hazard domains for extended periods without serious accidents or catastrophic failures. It is a condition of persistent mindfulness within

an organization that cultivates resilience by relentlessly prioritizing safety over other performance pressures.

RCM. RCM strives for continuous improvement in the maintenance process by determining the most effective approach to maintenance. RCM involves identifying cost effective actions that will reduce the probability of failure. RCM seeks the “proper balance” of conditioned-based and time/usage-based actions along with a run-to failure approach when applicable.

RCM Implementation Team. Individuals responsible for the implementation of RCM/CBM. The team may include DHA-FE staff or their contracted RCM subject matter experts, local Component FM staff, and/or local Component O&M contractor staff, to include their sub-contracted RCM subject matter experts.

ROI. ROI is a ratio between net income (over a period) and investment (costs resulting from an investment of some resources at a point in time). A high ROI means the investment's gains compare favorably to its cost. As a performance measure, ROI is used to evaluate the efficiency of an investment or to compare the efficiencies of several different investments. In economic terms, it is one way of relating profits to capital invested.