

DEPARTMENT OF THE ARMY
U.S. Army Corps of Engineers
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CECW-EC

Engineer Regulation
No. 1110-345-721

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Engineering and Design
U.S. ARMY CORPS OF ENGINEERS MEDICAL FACILITIES
MANDATORY CENTER OF EXPERTISE AND STANDARDIZATION

1. Purpose. This regulation sets forth the authority, policy, roles and responsibilities of the U.S. Army Corps of Engineers (USACE) Medical Facilities Mandatory Center of Expertise (MCX) and Standardization, also known as the Medical Facilities MCX. It also provides guidance and procedures by which the USACE Command and other Department of Defense (DoD) and Government agencies obtain these services.
2. Applicability. This regulation applies to all USACE commands, the DoD, and other Federal agencies worldwide requiring or electing to use Medical Facilities MCX services.
3. Distribution Statement. For Official Use Only (FOUO).

FOR THE COMMANDER:


JOHN P. LLOYD
COL, EN
Chief of Staff

*This regulation supersedes ER 1110-345-721, date 30 November 1983.

1. Purpose. This regulation sets forth the authority, policy, roles and responsibilities of the Medical Facilities MCX. It also provides guidance and procedures by which the USACE Command and other DoD and Government agencies obtain these services.
2. Applicability. This regulation applies to all USACE commands, the DoD, and other Federal agencies worldwide requiring or electing to use Medical Facilities MCX services.
3. Distribution Statement. FOUO.
4. References. See Appendix A.
5. Records Management (Recordkeeping) Requirements. The records management requirement for all record numbers, associated forms, and reports required by this regulation are addressed in the Army Records Retention Schedule—Army (RRS-A). Detailed information for all related record numbers are located in the Army Records Information Management System (ARIMS)/RRS-A at <https://www.arims.army.mil>. If any record numbers, forms, and reports are not current, addressed, and/or published correctly in ARIMS/RRS-A, see Department of the Army Pamphlet 25-403, Guide to Recordkeeping in the Army.
6. Mission. The mission of the Medical Facilities MCX is to provide worldwide expertise to deliver the highest quality medical and medical research facilities for the DoD and other Federal agencies and foreign governments, in partnership with other USACE commands. The Medical Facilities MCX is the enterprise mandatory center of expertise and standardization for medical facilities including, but not limited to hospitals, medical and dental clinics, veterinary clinics, and medical research laboratories. It is also established to provide continuity, standardization, and technical excellence within the USACE and provide medically unique technical support to USACE activities, the Army, other DoD agencies, and other Federal agencies worldwide.
 - a. The Medical Facilities MCX will maintain state-of-the art expertise in all areas of medically unique technical disciplines, including, but not limited to the following:
 - (1) Project Management Support.
 - (2) Mechanical engineering.
 - (3) Electrical engineering.
 - (4) Fire Protection engineering.
 - (5) Low Voltage Communications engineering.
 - (6) Architecture.
 - (7) Building Information Systems (BIM).

- (8) Specialized Medical Research Facilities.
- (9) Healthcare Facilities Commissioning.
- (10) Risk Management associated with Facilities Impacts to Clinical Delivery.
- (11) The Joint Commission Environment of Care Standards.

b. The Medical Facilities MCX represents the USACE Headquarters (HQUSACE) Engineering and Construction Division (CECW-EC) on DoD committees, Discipline Working Groups, and, in compliance with USACE ethics program guidance, with professional societies that impact medical facility design, such as the American Society of Healthcare Engineers, the American Society of Heating, Refrigeration, and Air-Conditioning, and the National Fire Protection Association.

c. The Medical Facilities MCX serves as the USACE point of contact for the medically unique technical support aspects of the design and construction of medical facilities. The term “medically unique” refers to facilities infrastructure that directly supports the delivery and quality of patient care or the development of medical research. These roles and responsibilities include, but are not limited to:

(1) Function as USACE subject matter expert for the design and construction of medical facilities, medical research facilities, and medical training facilities.

(2) Provide technical expertise for military construction, minor construction and repair projects. Provide technical expertise for other Federal agencies medical projects as requested based upon Interagency Agreement (IAA) and/or USACE Enterprise Program Management Plan (EPgMP).

(3) Represent USACE on the DoD Unified Facilities Criteria (UFC) Discipline Working Group for Unified Facilities Criteria (UFC) 4-510-01. Develop and maintain Medical Design Instructions (MDIs) and standards, criteria, UFC 4-510-01, and medically specific Unified Facilities Guide Specifications (UFGS). The MDI provides project specific mandatory technical criteria and requirements for medically-unique aspects of design and construction.

(4) Research the latest advancements in health care delivery related to medical design and construction in coordination with the project sponsor, academia, industry, professional societies, etc. and apply this knowledge to medical projects.

(5) Develop and manage training and workshops per USACE policy and guidance.

(6) Provide Lessons Learned through the appropriate enterprise central repository and make available to USACE Geographic Districts (GD).

(7) Provide input to the GD technical lead in development of the project's Quality Management Plan (QMP). This should include Quality Assurance (QA) reviews of design and construction submittals, technical evaluation of proposed changes, and commissioning services requirements for compliance with governing medical criteria.

d. The Director, Medical Facilities MCX, represents HQUSACE on the Defense Health Agency Health Facilities Coordination Council and Acquisition, Design, and Construction Committee, along with the HQUSACE National Program Manager.

7. Authorities.

a. Verifies to the Chief, Engineering Function at the executing GD that the final design conforms with UFC 4-510-01 and other applicable codes and standards.

b. Identifies on behalf of the GD design or construction issues that can jeopardize the life, health, or safety of building occupants or negatively impact clinical operations for immediate action, to include but not limited to suspension of activities.

c. Interprets and enforces compliance with UFC 4-510-01 for USACE. This authority would not have the effect of waiving or exempting requirements specially provided for in the criteria, which remains with the Engineering Senior Executive Panel signature authority per Military Standard 3007.

8. Mandatory Services Provided by the Medical Facilities MCX. The GDs are required to utilize the following mandatory services:

a. Design Phase Services for Medical Facilities.

(1) Provide technical expertise for medically-unique components of design in support of the executing District to ensure project inclusion or verification of medically-unique design criteria and compliance with UFC 4-510-01 and all other applicable medically unique guidance.

(2) Provide verification to the Chief of Engineering function at the executing GD prior to advertisement and at final design that the project has been reviewed for inclusion of all medically-unique technical requirements and the project specific MDI.

(3) Provide a technical review and coordinate with the project resource sponsor regarding requests for waivers and exemptions to UFC 4-510-01. Provide a recommendation to HQUSACE CECW-EC regarding approval of the request for a waiver or exemption.

(4) Provide a project-specific MDI (medical, medical research, or medical training) to the GD as a required attachment to the architect engineer (A-E) statement of work and request for proposal.

(5) Provide a technical review of medical minor construction and repair projects with an estimated design and construction cost greater than \$7.5 Million. A waiver for this mandatory requirement can be considered with an explanation and request from the District Chief of Engineering to the Chief of Engineering & Construction at HQUSACE.

b. Construction Phase Services for Medical Facilities.

(1) Provide the executing GD with recommended training, staffing, technical support, construction management and commissioning support requirements. These will be included in the project-specific Project Management Plan (PMP) or as defined in a USACE EPgMP.

(2) Provide construction submittal reviews according to the project specific QMP and within established timelines.

(3) Provide a post-construction award Assistance Team that visits the site at key milestone dates, as coordinated with the executing GD, to ensure oversight of medically unique features. These teams will provide written documentation of the visit and any concerns and recommendations for improved quality management.

(4) Participate in the governance process for HQUSACE designated medical or medical research MEGA Projects. Participate in HQUSACE Design and Construction Evaluations as required.

(5) Participate on Change Management Boards during construction.

9. Optional Construction Support Services:

a. Perform additional periodic site inspections and participate in construction management meetings.

b. Perform on-site inspections before the closure of walls, ceilings, etc. for specific medically unique areas (e.g., medical gas, fire protection systems, and other building systems).

10. USACE Support Contracts.

a. To reduce the time required for selection and award of A-E design contracts, the Huntsville Engineering and Support Center (CEHNC) is authorized to develop and maintain sufficient A-E Indefinite Delivery/Indefinite Quantity contracts with specialized medical design experience and expertise to support the execution of the Medical Facilities MCX mission and responsibilities on a reimbursable basis. These contracts and task orders are available for use by USACE GDs to facilitate meeting design schedules and to provide technical support during construction. The USACE GD requiring the task order will develop the task order scope of work, award the task order, and manage the contract.

b. CEHNC is authorized to develop and maintain a construction support contract for use by USACE GDs and the Medical Facilities MCX to provide construction service support.

11. Training.

a. Provide medically unique training to HQUSACE, MSCs, and Districts through the USACE Learning Center, and provide on-site training to support construction QA according to ER 690-1-414, Proponent-Sponsored Engineering Corps Training.

b. Provide training to Resident and Area office personnel on medically centered QA processes and inspection of medically unique features.

12. Responsibilities.

a. HQUSACE Military Programs Integration Division (CEMP-I). Has programmatic authority over the Medical Facilities MCX and is responsible for resourcing, reporting of funds, activities, and monitoring the effectiveness of the services provided.

b. HQUSACE Engineering and Construction Division (CECW-EC). Is the functional lead over engineering and design. Has technical oversight of the quality of products and services delivered by the Medical Facilities MCX. CECW-EC will assign a HQ proponent who will work in collaboration with CEMP-I Program Managers in issue resolution and definition of design processes that affect project execution.

c. USACE Major Subordinate Command (MSC). Each MSC will ensure that the Medical Facilities MCX has been engaged by their Districts as required by this regulation and USACE policy. MSC will review any proposed exceptions to their use prior to submitting to HQUSACE (CECW-EC) for approval/disapproval.

d. USACE Geographic Districts (GD). For medical projects requiring mandatory services from the Medical Facilities MCX as stated in paragraph seven (7) of this regulation, the Districts will:

(1) Include statements in their project documentation, signed by the Chief of Engineering function, certifying that the Medical Facilities MCX has been appropriately utilized in the planning, design, and execution of the project, and fully document any approved exceptions to MCX use.

(2) Include specific implementation of the design review requirements and construction support services as required in the PMP and the related QMP. Ensure these plans reflect the effort and funding necessary to support the mandatory requirements stated above.

(3) Ensure all Defense-Wide medical MILCON projects are designed and constructed using UFC 4-510-01 and the UFGS. This requirement applies regardless of the delivery method used.

(4) Ensure all medical projects for other Federal agencies are designed and constructed in compliance with applicable codes and governing criteria and standards as required by IAA and/or EPgMP.

e. Huntsville Engineering and Support Center (CEHNC). Maintain the Medical Facilities MCX at a level in the organization which is appropriate for their roles and responsibilities and supports successful execution of the mission and functions identified in this regulation. No changes to the Medical Facilities MCX mission or functions are to be implemented without approval from HQUSACE CECW-EC, CEMP-I, and revision to this regulation.

13. Procedures for Medical Facilities MCX Use.

a. Requests for Medical Facilities MCX services will be submitted to them by telephone or e-mail. An acceptable scope of work, schedule, and cost estimate are to be developed by the Medical Facilities MCX and requesting District or Agency before any reimbursable work begins. This will be formalized in a Memorandum of Understanding between the executing GD and the Medical Facilities MCX.

b. CECW-EC, with the support of the Medical Facilities MCX, ensures that material pertaining to the Medical Facilities MCX is kept current and maintained in electronic format on the USACE Technical Excellence Network (TEN) at <https://ten.usace.army.mil>.

14. Exceptions. There are no specific routine waivers to mandatory use of the Medical Facilities MCX. Request for waivers must be fully justified and submitted by the MSC to HQUSACE for CECW-EC approval/disapproval.

15. Point of Contact. The HQUSACE point of contact for this regulation is CECW-EC.

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Appendix A
References

1. Department of Defense Instruction (DoDI) 6015.17 Military Health System (MHS) Facility Portfolio Management
<http://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodi/601517p.pdf>
2. UFC 4-510-01 Design: Medical Military Facilities, most current edition
<https://www.wbdg.org/ffc/dod/unified-facilities-criteria-ufc/ufc-4-510-01>
3. Army Regulation 420-1, Army Facilities Management, most current edition
<https://armypubs.army.mil/ProductMaps/PubForm/AR.aspx>
4. Engineer Regulation (ER) 5-1-10, Corps-Wide Areas of Work Responsibility
<http://www.publications.usace.army.mil/USACE-Publications/Engineer-Regulations/>
5. ER 5-1-11, USACE Business Processes <http://www.publications.usace.army.mil/USACE-Publications/Engineer-Regulations/>
6. ER 1110-1-8158, Corps-Wide Centers of Expertise Program
<http://www.publications.usace.army.mil/USACE-Publications/Engineer-Regulations/>
7. ER 1110-345-100, Design Policy for Military Construction
<http://www.publications.usace.army.mil/USACE-Publications/Engineer-Regulations/>
8. Unified Facilities Guide Specifications (UFGS), Medical Facilities MCX-managed documents <http://www.wbdg.org/ffc/dod/unified-facilities-guide-specifications-ufgs>
 - a. UFGS 01.73.19: Installation of Government-Furnished Medical Equipment
 - b. UFGS 11.31.13: Electric Kitchen Equipment
 - c. UFGS 11.70.00: General Requirements for Medical and Dental Equipment
 - d. UFGS 11.71.00: Warming Cabinets, Sterilizers, and Associated Equipment
 - e. UFGS 11.72.13: Medical Equipment, Miscellaneous
 - f. UFGS 11.74.00: Dental Equipment
 - g. UFGS 13.17.43: Hydrotherapy Equipment
 - h. UFGS 26.55.80.00.20: Surgical Light Fixtures
 - i. UFGS 27.52.24: Nurse Call Systems

- j. UFGS 27.05.14.00.10: Cable Television Premises Distribution System
 - k. UFGS 27.51.16: Radio and Public Address Systems
 - l. UFGS 27.54.00.00.20 Community Antenna Television
 - m. UFGS 27.53.19.13 Distributed Antennae Systems
9. Comprehensive Accreditation Manual for Hospitals, The Joint Commission
<http://www.jointcommission.org/>