DEPARTMENT OF THE ARMY
U.S. Army Corps of Engineers
Washington, DC 20314-1000

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Regulation
No. 1110-1-8163

31 January 2014

Engineering and Design
DESIGN AND CONSTRUCTION POLICY FOR UTILITY MONITORING AND CONTROL SYSTEMS

1. Purpose. This regulation establishes policies, roles, responsibilities, and procedures for the U.S. Army Corps of Engineers (USACE) to execute utility monitoring and control systems (UMCS) projects and UMCS portions of projects. Projects may be associated with MILCON, Support for Other (SFO), sustainment renovation and modernization, or other programs executed by USACE. This regulation also outlines the roles, responsibilities and mandatory services provided by the USACE Utility Monitoring and Control Systems Mandatory Center of Expertise (UMCS-MCX).

2. Applicability. This regulation applies to all Headquarters, U.S. Army Corps of Engineers (HQUSACE) elements, major subordinate commands (MSC), district commands, laboratories, and field operating activities (FOA) having design and/or construction responsibilities.

3. References.

a. ER 1110-1-8158, Corps-Wide Centers of Expertise Program.

4. Distribution. Approved for public release, distribution is unlimited.

5. History/Background. HQUSACE established the Utility Monitoring and Control Systems Mandatory Center of Expertise at the Huntsville Engineering and Support Center in 1979 in response to significant technical issues associated with many energy monitoring and control systems contracts that were either underway or planned at the time. The Utility Monitoring and Control Systems Mandatory Center of Expertise tasking was defined in the Utility Monitoring and Control Systems Program Management Plan, the most recent update of which was issued by HQUSACE in NOV 1997.

6. Mission. The mission of the UMCS-MCX is to provide worldwide expertise to deliver the highest quality utility monitoring and control systems projects for the DoD, other Federal agencies and other customers in partnership with USACE commands. As such, the UMCS-MCX is the USACE-wide MCX for utility monitoring and control systems applications including, but not limited to, building systems automation, utility metering, energy management, annunciation/reporting systems, data transmission, systems sustainment, and integration of the various subsystems and components. The UMCS-MCX is tasked with providing design and construction policies, technical guidance, procedures, criteria, specifications, and standards.

7. Organization. The UMCS MCX organization reports to the Huntsville Engineering and Support Center (HNC) Director of Engineering. An organization chart is included in Appendix A

8. Mandatory and Voluntary Services.

a. Mandatory Services: The UMCS-MCX shall provide the following mandatory service after receipt of a request and funding from any USACE element involved with a project which involves UMCS:

(1) Planning and Design Phase.

(a) Review all DD 1391s that identify utility monitoring and control systems during the DD 1391 review and certification process.

(b) Participate in planning and design activities for projects that involve application of utility monitoring and control systems.

(c) Perform UMCS surveys, if required.

(d) Review design submittals.

(e) Review contract packages.

(f) Review expansion of existing UMCS.

(g) Review situations that may result in adverse precedent setting actions for utility monitoring and control systems work.

(2) Procurement Phase.

(a) Provide information and support to USACE organizations about the UMCS-MCX procurement and installation indefinite delivery / indefinite quantity contracts to assist in the development of the cost analysis used to help determine the most effective means of delivering the UMCS features of the project.

(b) In those cases where the responsible USACE activity determines it is in the government's best interest to award a new contract, the UMCS-MCX shall participate in the source selection process, usually in the technical evaluation.

(3) Installation / Construction Phase.

(a) Review technical submittals requiring Government approval.

(b) Participate in on-site quality verification activities to help ensure project success.

(c) Review and approve UMCS test procedures before any formal testing begins.

(d) Participate in UMCS pre-delivery, performance verification, and other acceptance tests.

(e) Participate in the project Post Completion Evaluation (PCE).

b. Elective Services: In addition to the mandatory services above, the UMCS-MCX is available for the following:

(1) Technical consulting services for all aspects of UMCS

(2) Complete UMCS planning, programming, and design services

(3) Complete UMCS procurement and contracting services

(4) Complete UMCS installation and construction support services

(5) Monitor, maintain, and servicing of utility monitoring and control systems

(6) UMCS training

c. Support to HQUSACE.

(1) Assist HQUSACE in management of all MILCON projects (design and construction) where UMCS features are identified.

(2) Provide HQUSACE with an annual UMCS-MCX operating budget, including salaries, travel, equipment, and training expenses.

(3) Establish and maintain criteria documents in accordance with HQUSACE direction.

(4) Provide information and reporting to HQUSACE in accordance with paragraph 10 below.

(5) Execute special tasking as required by HQUSACE.

9. Task Initiation and Procedures. Any USACE activity involved with a project which includes UMCS features must contact the UMCS-MCX and request the mandatory services identified in paragraph 8a above. All services are reimbursable except that portion identified under Planning and Design Phase involving DD1391 review and participation in the MILCON advanced planning activities. DD1391 review and MILCON advanced planning activities are centrally funded from HQUSACE and/or OPMG. There are no specific routine exceptions to mandatory use of the UMCS-MCX. Requests for exceptions must be fully justified by the USACE organization, and submitted to the HQUSACE proponent for approval.

a. Planning and Design Phase.

(1) Contact the UMCS-MCX and request the mandatory services listed in paragraph 8a above when a project with UMCS features is identified, preferably during the DD1391 review and approval process. Involve the UMCS-MCX as early as possible. Budget and provide funding for UMCS-MCX participation except for those centrally funded activities identified above.

(2) Request the UMCS-MCX conduct a UMCS survey, if required.

(3) Provide design submittals to the UMCS-MCX for review.

(4) Provide contract packages to the UMCS-MCX for review.

(5) Request the UMCS-MCX review projects which may require an expansion of existing UMCS.

(6) Request the UMCS-MCX review situations that may result in adverse precedent setting actions for UMCS work.

b. Procurement Phase.

(1) Considering the UMCS-MCX procurement and installation indefinite delivery / indefinite quantity contracts as one alternative delivery method, develop a business case analysis to help determine the most effective means of delivering the UMCS features of the project.

(2) In those cases where the responsible USACE activity determines it is in the government's best interest to award a new contract, the USACE activity shall fund and utilize the UMCS-MCX as a participant in the source selection process, usually in the technical evaluation.

c. Installation / Construction Phase.

(1) Request the UMCS-MCX review technical submittals requiring Government approval.

(2) Request the UMCS-MCX participate in on-site quality verification activities to help ensure project success.

(3) Request the UMCS-MCX review and approve UMCS test procedures before any formal testing begins.

(4) Request the UMCS-MCX participate in UMCS pre-delivery, performance verification, and other acceptance tests.

(5) Coordinate with and involve UMCS-MCX on the construction / installation status and proposed changes throughout the project.

(6) In coordination with the UMCS-MCX and the User, be responsible for organizing and conducting lessons learned / after action reports on completed projects which include UMCS features.

10. Operating and Reporting.

a. HQUSACE is the proponent for the UMCS-MCX. As such, this regulation is fulfilling the requirements of ER 1110-1-8158 by establishing and maintaining the UMCS mandatory center of expertise.

b. Mandatory services for DD1391 review and participation in advanced planning activities will be centrally funded by HQUSACE and/or OPMG as indicated in the above roles and responsibilities.

c. Since the UMCS-MCX is operating under the purview of the Huntsville Engineering and Support Center (CEHNC), CEHNC will conduct customer service surveys, and provide those results to HQUSACE. In accordance with the requirements of ER 1110-1-8158, CEHNC shall maintain and support the UMCS-MCX including providing adequate training opportunities for UMCS-MCX members to maintain state-of-the-art technical proficiency.

d. HQUSACE, with the support of the UMCS-MCX, will ensure that information pertaining to the UMCS-MCX is kept current and maintained in electronic format on the USACE Technical Excellence Network (TEN) at https://ten.usace.army.mil.

e. The current UMCS-MCX URL is http://www.hnd.usace.army.mil/umcs.

f. The UMCS-MCX will submit an annual report to HQUSACE that captures funding information, work accomplishments, strategic initiatives, and lessons learned for the prior fiscal year. The report will be submitted to HQUSACE within 90 days after the end of each fiscal year.

11. Recommendations for Utility Monitoring and Control Systems Program Improvement. Comments and recommendations concerning this regulation or the UMCS-MCX are welcome. They may be submitted by memorandum to HQUSACE, Washington, D.C. 20314-1000, with a copy furnished to Utility Monitoring and Control Systems Mandatory Center of Expertise, ATTN: CEHNC-EDM-S, 4820 University Square, Huntsville, AL 35816-1822.

FOR THE COMMANDER:

R. MARK TOY, P.E.
Colonel, Corps of Engineers
Chief of Staff