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	Organization and Functions ROLES AND RESPONSIBILITIES DAM SAFETY MODIFICATION MANDATORY CENTER OF EXPERTISE	
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DAM SAFETY MODIFICATION MANDATORY CENTER OF EXPERTISE

1. Purpose. This regulation establishes the roles and responsibilities of the Dam Safety Modification Mandatory Center of Expertise (DSMMCX) located within the Huntington District, U.S. Army Corps of Engineers (USACE). This regulation has been prepared to comply with the requirements in ER 1110-1-8158, Corps-Wide Centers of Expertise Program.

2. Applicability. This regulation applies to USACE Commands responsible for Civil Works projects.

3. Distribution Statement. This document is approved for public release. Distribution is unlimited.

4. References.

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

b. ER 1110-2-1156, Safety of Dams - Policy and Procedures

c. EC 1165-2-209, Civil Works Review Policy

d. Operation Order 2011-14, USACE Criteria for Establishment of MCX and Production Centers for Dam Safety

e. USACE Command Council, Meeting Minutes, 26 January 2012

5. Background. USACE performed competency evaluations and investment assessments associated with the need to improve Dam Safety modifications. As a result, USACE determined that the current delivery method of Dam Safety modification products is insufficient and cannot sustain future delivery of quality Dam Safety modification products. Therefore, Operations Order (OPORDR) 2011-14 was developed and approved by the National Management Board in January 2011. OPORDR 2011-14 established criteria for development of Dam Safety Production

Centers, and selection of a single Mandatory Center of Expertise (MCX) for Dam Safety modification products. In accordance with OPORDR 2011-14, and as approved by the Command Council in January 2012, the USACE Dam Safety Modification Mandatory Center of Expertise (DSMMCX) is to be located coincident with the Great Lakes and Ohio River Division (CELRD) Dam Safety Production Center (DSPC) in the Huntington District, Huntington, West Virginia.

6. Guiding Principles. The following are guiding principles for the USACE Dam Safety program;

a. The purposes of the USACE Dam Safety program are to protect life, property, and the environment by ensuring that all dams are designed, constructed, operated, and maintained as safely and effectively as is reasonably practicable. A key mission of the USACE Dam Safety program is to achieve an equitable and reasonably low level of risk to the public from its dams.

b. Risk-Informed Corporate Approach. The USACE dam safety program will be managed from a risk-informed USACE-wide portfolio perspective applied to all features of all dams on a continuing basis.

c. The Corps of Engineers maintains a three-level decentralized organization, HQUSACE, MSC (Regional) and district. Each level shall be staffed with qualified personnel in areas of design, construction, inspection and operations of dams and appurtenant structures, with appropriate training and experience in dam safety. Each organizational level shall have a Dam Safety Officer (DSO) with supporting organization as outlined in ER 1110-2-1156.

d. Districts will remain the foundation of mission execution and establishment of the DSMMCX does not change the roles and responsibilities of the Dam Safety Officer (DSO) as defined in ER 1110-2-1156.

e. Dam Safety Production Centers were formed to sustain expertise to deliver dam safety modifications. The scheduling and funding necessary to maximize risk reduction return-on-investment combined with aging of the relatively small workforce of dam safety experts made this necessary as a revised method of delivery.

f. The Mandatory Center of Expertise (MCX) for dam safety modifications is a national center of expertise that provides technical advice, oversight, review and production capability for concepts, planning, design and construction of all aspects of dam modification projects across USACE.

7. Policy. The roles and responsibilities of the USACE Dam Safety Modification Mandatory Center of Expertise (DSMMCX) are identified in the following sub-paragraphs.

a. Support and Oversight. The USACE DSMMCX will serve as a national center of expertise that provides technical advice, oversight review and production capability for concepts, planning, design and construction of all aspects of dam modification projects across USACE. The geographic district will remain the foundation of mission execution and will retain the overall responsibility for routine dam safety activities. It is the intent that the DSMMCX will provide oversight and support for dam safety products that will be reviewed by the Review Management Organization (RMO) as defined in EC 1165-2-209 or current policy. The DSMMCX will execute agreements with the Planning Community of Practice to obtain technical expertise in planning and economics in support of dam safety modification products. While utilization of the DSMMCX will be mandatory for all dam safety modification work, the level of involvement of the DSMMCX may vary, depending upon the Regional Dam Safety Production Centers' capability at the time of project execution. The DSMMCX will work in collaboration with the Regional DSPC's for mission execution and will focus on improving effectiveness and efficiency in the delivery of Dam Safety modification products/services. A comprehensive listing of roles and responsibilities for the USACE Dam Safety program is included as Appendix A.

b. Policy Development. At the request of HQUSACE, the DSMMCX may provide assistance in the development and maintenance of policy for the execution of the Dam Safety modification mission. The DSMMCX will work with the DSPPT to identify gaps in existing Dam Safety policy and will facilitate the development and implementation of policy improvements.

c. Agency Technical Review. All DSPC products shall undergo Agency Technical Review (ATR) in accordance with current review policy. The Risk Management Center (RMC) shall be the Review Managing Organization (RMO) for all ATR of DSPC products and shall have overall responsibility to ensure Districts/DSPCs receive quality ATR. As such, the RMC will review and approve review plans prepared by Districts/DSPCs. The DSMMCX shall establish ATR team membership and execute ATR for regional DSPC Dam Safety modification products in coordination with the RMO and appropriate PCXs. Regional DSPCs shall coordinate with the DSMMCX for establishment of the ATR teams.

d. Dam Safety Production Center Management Group (DSPC-MG). The DSMMCX shall be responsible for scheduling, coordinating, and facilitating DSPC-MG activities. Committee membership shall consist of the USACE Special Assistant for Dam and Levee Safety, the Director of the Risk Management Center (RMC), the Director of the Modeling, Mapping Consequence Center (MMCC), the USACE Dam Safety Program Manager and the directors of all the DSPCs within USACE. The committee shall be chaired by the DSMMCX Director. The DSPC-MG shall meet quarterly and shall focus on consistency of DSPC products, how to make delivery of DSPC products/services more efficient, ensure widest distribution of lessons learned and ensure a coordinated workload among the DSPCs. Additional members may be added or consulted as appropriate to specific issues.

e. Dam Safety Production Center Steering Committee (DSPC-SC). The Committee membership shall consist of the Chief of Engineering and Construction at Headquarters, or designee, and senior leadership representation from the MSCs. The Committee shall be chaired by the HQ Dam Safety Officer, or designee. The DSPC-SC shall meet annually and shall focus on strategic planning, and ensuring effectiveness and efficiency of the Dam Safety Production Centers. The DSPC-SC shall publish a report of its findings and recommendations of the effectiveness and efficiencies to the National Management Board and Command Council.

f. Assignment of Lead Engineer. The Lead Engineer for Dam Safety modification products shall be located in the DSPC performing the work or shall be designated by the geographic DSPC. Approval of the Lead Engineer shall be in accordance with ER 1110-2-1156.

g. Technical Competencies. The DSMMCX will be responsible for promoting and developing technical competencies for the execution of Dam Safety modifications within USACE. The DSMMCX will maintain Subject Matter Experts in all relevant Dam Safety fields to promote the development of technical expertise and competencies in Dam Safety. The DSMMCX will provide opportunities for mentoring and developmental assignments and shall develop a Dam Safety engineer career path. The DSMMCX shall formalize the Dam Safety mentoring program, develop an implementation plan and promote its use. In coordination with the DSPCs, the DSMMCX will assess competency gaps within the Dam Safety community. The DSMMCX will establish a plan to eliminate the competency gaps to include developing and conducting Dam Safety related training, coordinating developmental assignments and providing DSAC University opportunities. The DSMMCX shall prepare an annual report on the state of technical competence of the Dam Safety community. The DSMMCX will provide sufficient oversight to ensure DSPC personnel are able to maintain appropriate technical competencies.

h. Maintenance of Dam Safety Investment Plan. The DSMMCX, at the request of HQUSACE, shall be responsible for establishing and leading a PDT to update and continually maintain the Dam Safety Investment Plan (DSIP) as appropriate.

i. A-E Services. The DSMMCX will maintain sufficient A-E contracts to ensure the availability of specialized skills necessary for the advancement of the Dam Safety modification mission and program execution. These services will be available for use by the DSPCs should those specialized skills be unavailable through coordination between the DSPCs. The primary resources to execute the Dam Safety modifications will be through the DSPCs.

j. Coordination and Communication. The DSMMCX shall actively maintain a web page on the Technical Excellence Network (TEN) or other designated knowledge management portal. The web based portal shall identify subject matter experts in the field of Dam Safety. The DSMMCX will coordinate with COPs, Districts and other agencies/organizations to develop strategic partnerships that promote the advancement of the Dam Safety mission.

k. International Support for Others. The MCX will support HQUSACE as requested in providing services to international organizations for dam safety related products. The MSC will be the first line of support to organizations seeking support from USACE. The MSC will coordinate through the MCX to obtain the necessary resources in support of Dam Safety modification related products to international organizations.

l. Roles and Responsibilities – Overall Dam Safety Program. As noted above, a matrix providing a comprehensive listing of roles and responsibilities for the USACE Dam Safety Program is included as Appendix A. Specific roles of the various Dam Safety Production Centers associated with the individual MSCs will vary somewhat as each Center shall be managed to most efficiently meet mission needs in that particular MSC. The USACE Dam Safety Program Roles and Responsibilities Matrix (Appendix A) is published in several documents with the master version of the matrix published in ER 1110-2-1156. The master version of the matrix governs if future changes result in conflicts to arise between ER 1110-2-1156 and the copy published in Appendix A of this regulation.

8. Organizational Structure/Command and Control. The DSMMCX shall be under the direct command and control of the Huntington District Commander. The senior rater for the Director of the DSMMCX will be the Regional Business Technical Director (RBTD) provided that the RBTD is the Regional Dam Safety Officer (DSO). In the event the RBTD is not the DSO, the senior rater will be the Commander of the Great Lakes and Ohio River Division. The Special Assistant for Dam and Levee Safety at HQUSACE shall serve as the intermediate rater for the Director of the DSMMCX. Appendix B graphically displays the command and control structure.

9. Conflict Resolution. In the event a conflict exists between the DSMMCX and a regional DSPC, the HQUSACE Dam Safety Officer shall have final decision making authority.

10. Funding. The DSMMCX is a reimbursable organization. Funding for all activities of the DSMMCX will be provided through Headquarters or project funds. Funding from Headquarters will generally consist of funds from the Guidance Update and Modification Program (GUMP) (GE account) and/or the National Dam Safety Program (O&M Remaining Item) for development of specific products. Project funds will be from the Construction account, either Dam Safety Assurance and Seepage/Stability Correction Program (WEDGE) or project line item funds. Management functions will be charged to overhead.

11. HQUSACE Proponent. The HQUSACE proponent for the DSMMCX is the USACE Special Assistant for Dam and Levee Safety.

12. Upward Reporting. The Dam Safety Production Center Management Group will establish customer service and performance metrics for the Dam Safety modification mission, and the Dam Safety Production Center Steering Committee shall approve the

report of all significant program activities will be forwarded to the HQUSACE proponent within two weeks of the conclusion of each Dam Safety Production Center Management Group meeting and also, reported at the CELRD Project Review Board (PRB). The content and format of the report will be documented in the Program Management Plan and posted to the Dam Safety Sub-Cop TEN Site. The Dam Safety Production Center Steering Committee will provide review of performance and recommendations for continuous improvement. If the results of these reviews indicate the need for changes or improvement in the delivery of Dam Safety modification products, adaptive management will be employed to implement changes in processes and/ ororganizational structure as necessary to achieve the guiding principles and established metrics. Evaluation and recertification of the DSMMCX shall be in accordance with ER 1110-2-8158.

FOR THE COMMANDER:

2 Appendixes
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DIONYSIOS ANNINOS
Colonel, Corps of Engineers
Chief of Staff

APPENDIX A

Roles and Responsibilities Matrix

The USACE Dam Safety Program Roles and Responsibilities Matrix are published in several documents with the master version of the matrix published in ER 1110-2-1156. The master version of the matrix governs if future changes result in conflicts to arise between ER 1110-2-1156 and the copy published in this appendix.

Legend of Role Symbols and Organizational Symbols

Legend of Symbols

P	Primary - This represents the organization that primarily executes this role/task.
O	Oversight - This organization will provide the oversight to verify effective execution.
S	Support - This organization would be expected to be involved in supporting this activity on a regular basis (It is noted that all the organizations will support every function as necessary, but the "S" indicates the expectation of a more routine and higher level of support.)
M	Mandatory - This is a mandatory role/function for this organization. Other organizations are mandated to utilize this organization for this function or this organization is mandated to maintain this service for use by the Agency. The details of this mandate will be defined within the Engineering Regulation establishing each center.

Organizational Symbols

HQ	Headquarters, USACE
MSC	Major Subordinate Commands (Regions/Divisions)
Districts	Local Geographic Corps of Engineers District
RMC	Risk Management Center
ERDC	Engineering Research and Development Center
DSPC	Regional Dam Safety Program Centers
DSMMCX	Dam Safety Modification Mandatory Center of Expertise
MMC	Modeling, Mapping, and Consequence Center of Expertise
SOG	Senior Oversight Group
DSPCMG	Dam Safety Production Center Management Group
DSSC	Dam Safety Steering Committee
DSPPT	Dam Safety Policy and Procedures Team
DSPCSC	Dam Safety Production Center Steering Committee

Overall Dam Safety Program Management

Responsibilities	HQ	MSC	District	RMC	ERDC	DSPC	DSMMCX	MMC	SOG	DSPC MG	DSSC	DSPPT	DSPC SC
USACE Dam Safety Program													
A. Overall Dam Safety Program Management													
Periodic review/approval of centers	M			S			S	S			S		
Participation in NDSRB and ICODS	P	S		S	S			S			S		
Select/Appoint/Approve USACE DSO	M								S				
Select/Appoint/Approve Regional DSO	O	M											
Sustain National SME's in Dam Safety engineering	O	S	S	S	S	S	M	S		O	O		
Sustain Regional SME's in Dam Safety engineering		O	S			M							
QMS (Dam Safety National level)	M	S		S	S		S	S	S	S	S	S	
Quality Management System for DS Risk Products	O			M		S	S	S					
Quality Management System for MMC Products	O			O				M					
Management of Dam Safety Records													
Maintain project records for USACE dams			M			S							
Maintain project records for routine activities	O	O	M	S	S			S			O		
Maintain project records for DS modification activities	O	O	S	S	S	M	O	S		O			
Maintain TEN for centers	M			S	S		S	S					
Budget development	M	s	S	S	S	S	S	S	O				
Policies/Procedures	M	S	S	S	S	S	S	S			O	S	
Strategic Planning	M	S		S	S	S	S	S	S	S	S	S	O
Initiate and Manage Strategic Partnerships	M	s		S			S	S			O		
Asset Mangement	O	P	S	S							S		
R&D	O	S	S	S	M		S	S			S	S	
Maintain National A-E contracts experienced in dam engineering	O		S	S		S	M	S		O			
Maintain Regional A-E contracts experienced in dam engineering			S	S		P	S	S					
Manage Dam Safety Portfolio/DSAC	M	S	S	S		S	S	S	O				
Portfolio Risk Communication	M	S	S	S		S	S				S		
Project Risk Communication	O	S	M	S		S	S	S					

Routine Dam Safety Program Management

Responsibilities	HQ	MSC	District	RMC	ERDC	DSPC	DSMMCX	MMC	SOG	DSPC MG	DSSC	DSPPT	DSPC SC
USACE Dam Safety Program													
B. Routine Dam Safety													
Quality Management System (Regional)	O	P	S										
Quality Management System (District)													
Develop Processes for QMS	O	O	P										
Develop Performance Measurements	P	S	S	S							S	S	
Track Performance (Including DS Scorecard)	O	O	P								S	S	
QC Reviews		O	P	O									
ATR	O	O	S	M									
IEPR Type II	O	O	S	M									
Manage Routine Dam Safety Program													
Select/Appoint/Approve District DSO	O	O	M										
Select/Approve District DSPM		O	P										
Conduct Dam Safety Committee Meetings (Regional)	O	M	S										
Conduct Dam Safety Committee Meetings (District)		O	M										
Periodic Inspection	O	O	M								O		
Periodic Assessment													
Facilitate Risk assessment/PFMA	O	O		M									
Perform Risk Assessment and Prepare Documentation	O	O	M	S				S					
Produce Mapping, Models and Consequences	O	O	S	S				M					
Instrumentation Program	O	O	M	S		S					O		
Develop/Maintain IRRMP and Implement IRRMs	O	O	M	O		S		S			O		
Develop/Maintain and Implement IOP	O	O	M	O		S		S			O		
Dam Safety Training (For Dam Operators, etc)	O	O	M								O		
Emergency Action Plans	O	O	M					S			O		
Emergency Engineering Services/Floodfighting, etc.	S	S	P	S	S	S	S	S			O		
Technical Competency (TC) Management													
Coordinate with CoPs to identify agency gaps in DS Skills	P	S	S	S							S		
Develop/Maintain Training Curricula to close gaps	P	S	S	S							S		
Develop District level plan to eliminate gaps	O	S	P								S		
Implement Plan to eliminate TC gaps	O	S	P	S							S		
Coordinate/Integrate with Related CoPs	O	S	P	S				S			S		
Manage Routine Dam Safety Projects													
Establish the Project Management Plan		O	M										
Project Management (PM)		O	M										
Lead Engineer		O	M										
Non-Technical PDT Members		O	M										
Technical PDT Members (in-house/A-E)		O	M			S		S					
Construction PDT Members		O	M										
Design Documentation Report		O	P					S					
Production of Plans and Specifications		O	P										
Cost Engineering Services		O	P										
Engineering & Design during Construction		O	P										
Advertise, Award and Administer Construction Contract		O	P										

Dam Safety Modifications Program

Responsibilities	HQ	MSC	District	RMC	ERDC	DSPC	DSMMCX	MMC	SOG	DSPC MG	DSSC	DSPPT	DSPC SC
USACE Dam Safety Program													
C. Dam Safety Modifications													
Quality Management System	O	O	S	O		P	O			S		S	
Develop Performance Measurements	O	O	S	S		S	M	S		S			
Track Performance	O	O	S	S		P	M			S			
Project Review Plans	O	O	M	O		S							
QC Reviews		O	S	P		P	O	P					
ATR	O		S	M		P	P	S					
IEPR	O		S	M		S							
Manage Dam Safety Modificaton Mission													
Manage and coordinate SOG activities	M			S		S	S	S	P				
Chair Dam Safety Production Steering Committee	M												
Chair DSPC Management Group meetings							M						
DSPC Management Group meeting members	M			M		M	M	S					O
Technical competency Management													
Develop Dam Safety Engineer career path	O			S		S	M	S		S	O		O
Coordinate with CoPs to identify gaps in DS Skills	O		S	S		S	M	S		S			O
Develop a plan to eliminate gaps	O	S	S	S		S	M	S		S			O
Develop/Maintain Training Curricula	O			S			M	P		S			O
Implement Plan to eliminate TC gaps	O	S	S	S		S	M	P		S			O
Develop a mentoring program for DS	O	S	S	S		S	M	S		S			O
Implement/execute mentoring program	O	S	S	S		S	M	P		S			O
Maintain the Dam Safety Investment Plan	O	S	S	O		S	M	S		S			O
Coordinating workload among DSPCs	O	S	S	S		S	M			S			O
Coordinate/Integrate with Related CoPs	M	S	S	S		S	S	S				O	
Ensure districts receive effective service	O	S		S		M	O	S		S			O
Reimbusable support for others (national)	O	P	S	S		S	S	S		S			O
Reimbusable support for others (international)	P	S	S	S		S	S	S		S			O
408 implementation	O	O	P			S	S						
Manage Dam Safety Modification Projects													
Establish the Project Management Plan	O		M	S		O	O	S					
Project Manager		O	P										
Lead Engineer	O	O				M	O						
Non-Technical PDT Members		O	P										
Technical PDT Members (in-house/A-E)		O	S	S		P	O	S					
Construction PDT Members		O	P			O	S						
Issue Evaluation Studies													
Risk assessment	O	S	S	M	S	S	S	S	O				
Document Preparation	O		M	S		S	S	S	O				
Produce Mapping, Models and Consequences	O		S	O		S	S	M	O				
Dam Safety Modifications													
Preparation of Decision Documents (DSMS/R)	O	O	S	O		M	O	S	O	O			
Design Documentation Report	O	O	S	O		P	O	S	O				
Production of Plans and Specifications	O	O	S	O		P	O		O				
Cost Engineering Services	O	O	S	O		P	O		O				
Engineering & Design during Construction	O	O	S	S		P	O						
Advertise, Award and Administer Construction Contract	O	O	M			S	S						
Re-evaluation post-construction risk	O		S	M		S	S	S	O				

APPENDIX B

Command and Control