DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DIVISION, GREAT LAKES AND OHIO RIVER
CORPS OF ENGINEERS
550 MAIN STREET
CINCINNATI, OH 45202-3222

CELRD-PD-G

SEP 23 2014

MEMORANDUM FOR Commander, US Army Corps of Engineers, District, Chicago (Susanne Davis/CELRC-PM-PL), 231 South La Salle Street, Suite 1500, Chicago, IL 60604

SUBJECT: Chicago District, Chicago Harbor Lock and Chicago River Controlling Works Water Control Manual Review Plan – LRD Approval

1. The attached Review Plan (RP) for the Chicago District Chicago Harbor Lock and Chicago River Controlling Works Water Control Manual was presented to the Great Lakes and Ohio River Division for approval in accordance with EC 1165-2-214, Water Resources Policies and Authorities, Civil Works Review, 15 December 2012.

2. The RP defines the scope and level of peer review for the activities to be performed for the subject project. The USACE LRD Review Management Organization (RMO) has completed their policy and quality assurance review of the subject RP and concurs that it describes the scope of review for work phases and addresses all appropriate levels of review consistent with the requirements described in EC 1165-2-214.

3. I concur with the recommendations of the RMO and approve this RP.

4. The District is requested to post the RP to its website. Prior to posting, the names of all individuals identified in the RP and the dollar values of all project costs should be removed.

5. If you have any questions please contact Mr. Charlie Uhlarik, CELRD-PD-G at (513) 684-2035.

Encl

STEVEN J. ROEMHILDT, P.E.
Colonel, EN
Commanding

OTHER WORK PRODUCTS
INDIVIDUAL REVIEW PLAN
for
Water Control Manuals

Chicago Harbor Lock and Chicago River Controlling Works

Chicago District, Corps of Engineers

MSC Initial Approval Date: Pending

Last Revision Date: None

US Army Corps
of Engineers ®

TABLE OF CONTENTS

1. PURPOSE AND REQUIREMENTS

a. Purpose. This Review Plan (RP) defines the scope and level of peer review for the update of the Water Control Manual (WCM) for the Chicago Harbor Lock and Chicago River Controlling Works (CHL&CRCW).

Reservoirs, locks and dams, re-regulation and major control structures and inter-related water resources systems are required to have an up-to-date WCM as required by Engineering Regulation (ER) ER 1110-2-240. The Water Control Plan (WCP) contained in the WCM must be prepared giving appropriate consideration to the original project authorizing legislation and subsequent specific authorizations as well as all applicable Congressional Acts relating to operation of Federal facilities (e.g. Fish and Wildlife Coordination Act, National Environmental Policy Act, the Clean Water Act). WCMs should comply with Engineering Circular (EC) EC 1165-2-214, Water Resources Policy and Authorities, Civil Works Review. Guidance on the content and format of a WCM is contained in ER 1110-2-8156 with additional guidance in Engineering Manual (EM) EM 1110-2-3600. The level of review is predicated on the criteria as detailed in this RP. As outlined in ER 1110-2-8156, the WCP is Chapter 7 of a WCM.

Additional Information on WCPs can be found in ER 1105-2-100, Planning Guidance Notebook and in ER 1165-2-119, Modifications to Completed Projects.

b. Applicability. The National Programmatic Review Plan for Routine Operations and Maintenance (O&M) Products, reference 1.c.10, is applicable to all routine O&M products that only require District Quality Control (DQC) and revisions to WCMs that are 1) administrative or informational in nature and do not substantially change the WCP and 2) do not require public meetings in accordance with ER 1110-2-240. WCM updates that include changes to the operation of the project or revisions to the WCP require a separate individual RP be prepared and submitted for approval. While this update will not include changes to the operation of the project or substantive revisions to the WCP, 1) operation of the facility is a key element to reducing flood damages in downtown Chicago and 2) the facility has also gained recent attention from the public as well as Federal and state agencies following the publication of the Great Lakes and Mississippi River Interbasin Study (GLMRIS). For these two reasons, this WCM update requires the preparation of an individual RP and an Agency Technical Review (ATR) of the WCM update.

This individual RP is for WCMs and is prepared in accordance with EC 1165-2-214.

c. References

1) Engineering Circular (EC) EC 1165-2-214, Water Resources Policy and Authorities, Civil Works Review, December 2012.
2) EC 1105-2-412, Assuring Quality of Planning Models, 31 Mar 2011
3) Engineering Regulation (ER) ER 1110-1-12, Quality Management, 30 Sep 2006

4) ER 1110-2-240, Water Control Management, 8 Oct 1982
5) ER 1110-2-8156, Preparation of Water Control Manuals, 31 Aug 1995
6) Engineering Manual (EM) EM 1110-2-3600 Management of Water Control Systems, 30 Nov 1987
7) ER 1105-2-100, Planning Guidance Notebook, 22 Apr 2000
8) ER 1165-2-119, Modifications to Completed Projects, 20 Sep 1982
9) Memorandum, CELRD-DE, Subject: CWMS Implementation and Water Control Manual Revisions, 25 March 2011
10) Memorandum for Distribution, CECW, Subject: Programmatic Review Plan for Routine Operations and Maintenance Products, 20 Dec 2012
11) Memorandum for Commanders, Major Subordinate Commands, CECW-CE, Subject: Policy Guidance Letter - Peer Review of Updates to Water Control Manuals, 2 Jul 2013
12) Engineering and Construction Bulletin (ECB) ECB-2013-28, Subject: Use of Certified Engineering and Construction (E&C) Community of Practice (CoP) Members for Agency Technical Reviews (ATRs) on Civil Works Projects

d. Requirements. This RP was developed in accordance with EC 1165-2-214, which establishes an accountable, comprehensive, life-cycle review strategy for Civil Works products by providing a seamless process for review of all Civil Works projects from initial planning through design, construction, and operation, maintenance, repair, replacement and rehabilitation (OMRR&R). The EC outlines four general levels of review: District Quality Control/Quality Assurance (DQC), Agency Technical Review (ATR), Independent External Peer Review (IEPR), and Policy and Legal Compliance Review. In addition to these levels of review, per EC 1105-2-412, any models and analysis used in the update of the WCM must be compliant with Corps policy, theoretically sound, computationally accurate, transparent, described to address any limitations of the model or its use, and documented in study reports.

2. REVIEW MANAGEMENT ORGANIZATION (RMO) COORDINATION

The RMO is responsible for managing the overall peer review effort described in this RP. The RMO for WCM updates is the LRD Water Management (LRD WM) Division. The approval of each RP shall be signed by the MSC Commander; delegation of signature authority for Review Plans is not allowed. Chicago District will post the approved RP on its public website.

3. WATER CONTROL MANUAL INFORMATION

a. Document. The CHL&CRCW WCM will be prepared in accordance with ER 1110-2-240 and ER 1110-2-8156. The approval level of the updated WCM is LRD WM. If applicable, an Environmental Assessment (EA) will be prepared, as part of the WCM update, if substantive changes to the WCP are made. Since the CHL&CRCW WCM update does not include substantive changes to the WCP, as outlined in Section 1.b of this RP, no EA is required.

b. Description of the Action. The CHL&CRCW is located at the mouth of the Chicago River in downtown Chicago, Illinois. The primary purpose of the CHL&CRCW is to control the flow of water between Lake Michigan and the Chicago River while maintaining navigational water levels. The main purpose of this WCM is for day-to-day water control operations for all foreseeable conditions. The current WCM, dated July 1988, was prepared by the Chicago District. The update of the CHL&CRCW WCM is expected to only include 1) an update to the style and format of the document to meet standards and regulations, 2) creation of the text for the sections currently missing, 3) updates to various charts and plots with observed data, and 4) updates to the contact information. The CHL lock gates were replaced in 2009 as part of a rehabilitation of the CHL&CRCW structure. The description of the project will be updated to reflect this undertaking, as well as any other repair, modification, or rehabilitation that has occurred since 1988. The WCP (Chapter 7) will be updated to include guidance previously implemented for operations in which lake levels are lower than the minimal navigation depth of the Chicago River for an extended time period. These changes to the WCP are considered to be administrative and informational.

c. Factors Affecting the Scope and Level of Review. The WCM update is not anticipated to result in any substantive changes to the existing and approved WCP. There are no project risks associated with this update. The update to the manuals does not involve a significant threat to human life/safety as no significant changes to the CHL&CRCW WCP are anticipated. There is no request by the Governor of an affected state for a peer review by independent experts. The information in the updated WCM will not be based on novel methods, involve the use of innovative materials or techniques, present complex challenges for interpretation, contain precedent-setting methods or models, or present conclusions that are likely to change prevailing practices. The WCM update does not involve any design, thus it is not anticipated to require redundancy, resiliency, and/or robustness, unique construction sequencing, or a reduced or overlapping design construction schedule. No changes to the WCP are anticipated that could potentially adversely affect public interests.

4. PROJECT DELIVERY TEAM (PDT)

The PDT shall be comprised of Chicago District personnel who are directly involved with the day-to-day operation of the CHL&CRCW and are familiar with the current WCM. The PDT's primary responsibilities are to 1) write and update this RP, 2) update the WCM as outlined in Section 3.b. of this RP, 3) produce a draft final updated WCM, 4) submit the final WCM to the DQC and ATR for their review, 5) respond to the DQC and ATR comments, and 6) finalize and distribute a final updated CHL&CRCW WCM.

5. DISTRICT QUALITY CONTROL (DQC)

All WCM updates (including supporting data, analyses, environmental compliance documents, etc., if applicable) shall undergo DQC. DQC is an internal review process of basic science and engineering work products focused on fulfilling the project quality requirements defined in the Project Management Plan (PMP). Chicago District shall manage the DQC. Documentation of DQC activities is required and should be in accordance with the Chicago District and the LRD Regional Quality Management Systems.

The DQC will be conducted by in-house staff and reviewers who will not be directly involved in the WCM update. DrChecks^{sm} review software will be used to document all DQC comments, responses, and associated resolutions accomplished throughout the review process. A DrChecks^{sm} report documenting the comments and resolutions will be provided to the ATR team along with the DQC certification.

6. AGENCY TECHNICAL REVIEW (ATR)

a. Description. The updated WCM must be evaluated against EC 1165-2-214, paragraph 15 and Reference 3, to determine if ATR is required. As outlined in Section 1.b. of this RP, an ATR will be conducted for this WCM update. The objective of ATR is to ensure consistency with established criteria, guidance, procedures, and policy. The ATR will assess whether the analyses presented are technically correct and comply with published USACE guidance, and that the document explains the analyses and results in a reasonably clear manner for the public and decision makers. The ATR will be managed by LRD WM and will be conducted by a qualified team from outside Chicago District that is not involved in the day-to-day operation of the CHL&CRCW. The ATR team will be comprised of senior USACE personnel and may be supplemented by outside experts as appropriate. The ATR team lead will be from outside of the Division and will have specific knowledge and expertise regarding WCM updates.

b. Products to Undergo ATR. The ATR of the WCM will be performed throughout the study in accordance with the Chicago District and the LRD Regional Quality Management System (08504– QC/QA Procedures for Civil Works). Certification of the ATR will be provided prior to the Chicago District and LRD Commanders approving the final CHL&CRCW WCM.

c. Required ATR Team Expertise. The ATR Team will reflect the disciplines, qualifications and expertise described in Table 1. The ATR Team Lead will be a senior professional from within the Water Management discipline. The ATR Lead will use the “ATR Lead Checklist” and “ATR Charge Template” developed by the National Planning Centers of Expertise as resources when conducting the review.

Table 1
Agency Technical Review (ATR) Team Requirements

ATR Team Members/Disciplines	Expertise Required
ATR Lead	The ATR lead should be a senior professional preferably with experience in preparing Water Control Manuals and conducting ATR. The lead should also have the necessary skills and experience to lead a virtual team through the ATR process. Typically, the ATR lead will also serve as a reviewer for a specific discipline (such as planning, hydraulics/hydrology, economics, environmental resources, etc). The ATR Lead MUST be from outside LRD. ATR Team Lead can be a separate role or a dual role as the Water Management or Hydraulics ATR Team member.
Water Management	The water management reviewer will be an expert in the field of water management, with a particular emphasis in navigation structures on the Great Lakes.
Hydraulics	The hydraulics reviewer will be an expert in the field of hydraulics. This includes a thorough understanding of hydrology and hydraulics as it pertains to urban waterway systems, flood control, and river modeling.

d. Documentation of ATR. DrChecks[sm] review software will be used to document all ATR comments, responses and associated resolutions accomplished throughout the review process. Comments should be limited to those that are required to ensure adequacy of the product. The four key parts of a quality review comment will normally include:

1) The review concern – identify the product's information deficiency or incorrect application of policy, guidance, or procedures;
2) The basis for the concern – cite the appropriate law, policy, guidance, or procedure that has not been properly followed;
3) The significance of the concern – indicate the importance of the concern with regard to its potential impact on the plan selection, recommended plan components, efficiency (cost), effectiveness (function/outputs), implementation responsibilities, safety, Federal interest, or public acceptability; and
4) The probable specific action needed to resolve the concern – identify the action(s) that the reporting officers must take to resolve the concern.

In some situations, especially addressing incomplete or unclear information, comments may seek clarification in order to assess whether further specific concerns may exist.

The ATR documentation in DrChecks[sm] will include the text of each ATR concern, the PDT response, a brief summary of the pertinent points in any discussion, including any vertical team coordination (the vertical team includes Chicago District, the RMO, LRD, and

HQUSACE), and the agreed upon resolution. If an ATR concern cannot be satisfactorily resolved between the ATR team and the PDT, it will be elevated to the vertical team for further resolution in accordance with the policy issue resolution process described in either EC 1165-2-214, ER 1110-1-12, Quality Management or ER 1105-2-100, Appendix H, as appropriate. Unresolved concerns can be closed in DrChecks[sm] with a notation that the concern has been elevated to the vertical team for resolution.

e. ATR Review Report. At the conclusion of each ATR effort, the ATR team will prepare an ATR Review Report summarizing the review. ATR Review Reports will be considered an integral part of the ATR documentation and shall:

1) Identify the document(s) reviewed and the purpose of the review;
2) Disclose the names of the reviewers, their organizational affiliations, and include a short paragraph on both the credentials and relevant experiences of each reviewer;
3) Include the review instructions (charge) to the reviewers;
4) Describe the nature of their review and their findings and conclusions;
5) Identify and summarize each unresolved issue (if any); and
6) Include a verbatim copy of each reviewer's comments (either with or without specific attributions), or represent the views of the group as a whole, including any disparate and dissenting views.

f. ATR Certification – Statement of Technical Review. The ATR may be certified when all ATR concerns are either resolved or referred to the vertical team for resolution and the ATR documentation is complete. The ATR Lead will prepare a Statement of Technical Review certifying that the issues raised by the ATR team have been resolved (or elevated to the vertical team). A Statement of Technical Review should be completed prior to the District Commander signing the final report. A sample Statement of Technical Review for Other Work Products is included in Attachment 2.

g. Decision on ATR. The items outlined in EC 1165-2-214 15.b were answered for the subject project and, based on the responses, the subject project does not appear to meet the criteria under which an ATR would be required. The update to the WCM does not include any design, evaluate alternatives, or include a recommendation. It does not have a formal cost estimate. Any changes being made to the WCM are administrative or informational in nature and would not trigger the need for a NEPA analysis. It does not impact a structure or feature of a structure whose performance involves potential life safety risks. The update does not support a significant investment of public monies, support a budget request, or change the operation of the project. Although the update to the WCM applies to a historic property – the CHL was designated a National Historic Landmark in 1987 – it will not have an impact upon the operation or maintenance of the site. The update will not involve any activities. It does not reference use of or reliance on manufacturer's engineers specifications or reference reliance on local authorities for inspection/certification of utility systems.

The construction of the CHL&CRCW in 1938 was at the direction of a Supreme Court decree; from its inception the structure has been involved in controversy. The controversy over the Lake Michigan diversion was addressed again in 1967 and 1980 by additional Supreme Court decrees. As a result of the concerns stemming from Asian carp, in 2010 and 2012 several motions were brought before the Supreme Court that could have impacted the operation of the CHL&CRCW. At this time there is no controversy or any controversy anticipated for the CHL&CRCW or its operation. As a result of its primary function of the project (restricting the diversion from Lake Michigan into the CSSC), however, there is the potential for controversy at some point in its future. Due to this potential it is recommended that the level of review for this product be elevated from a DQC to an ATR. Elevating the review beyond an ATR to an IEPR, especially when none of the triggers are met, might make it appear as though the update to the WCM is not merely administrative or informational.

7. INDEPENDENT EXTERNAL PEER REVIEW (IEPR)

a. IEPR Types. Type I and/or Type II IEPR may be required for the update of a WCM, but only under certain circumstances. IEPR is the most independent level of review, and is applied in cases that meet certain criteria where the risk and magnitude of the proposed project are such that a critical examination by a qualified team outside of USACE is warranted.

b. Decision on IEPR. First, Type II IEPR is not applicable since the updates/revisions to this Water Control Manual do not associate with an "implementation phase" characterized by design and construction activities.

There are some updates/revisions that constitute "decision documents" and in those cases it is appropriate to require Type I IEPR in accordance with EC 1165-2-214. However, in most cases, the updates/revisions are relatively simple and therefore, Type I IEPR is not required.

The subject project is one such case where a Type I IEPR is not required; it does not meet the mandatory or discretionary triggers as outlined in EC 1165-2-214. The project does not represent a threat to human life, is not controversial, and has not had a request for IEPR from the Governor of Illinois or the head of a Federal or state agency. Since the CHL&CRCW has been in operation since 1938, there is not an expectation that there will be any public dispute as to the size, nature or effects of the project. The update to the WCM will only be administrative or informational in nature – will not be any changes to the current operating procedures of the CHL&CRCW – so it is not expected that there will be any public dispute as to the economic or environmental cost or benefit of the project. No governmental agencies have demonstrated any concerns to date. For all these reasons the project should not be considered controversial. It is not expected to have adverse impacts on scarce or unique cultural or historic resources. It is not expected to have adverse impacts on any fish or wildlife species or their habitat whether or not they are listed as endangered or threatened under the Endangered Species Act of 1973. The WCM update will not lead into any

construction. It is not likely to contain influential scientific information, nor is it likely to be a highly influential scientific assessment. It does not involve the rehabilitation or replacement of existing lock structures or flood control gates. It is not expected to be based on novel methods, does not present complex challenges for interpretation, does not contain precedent-setting methods or models, and will not present conclusions that are likely to change prevailing practices. It has no life safety risk because it will not lead to any construction nor operational changes. It does not involve changing any storage allocation or guide curves at the project. The project has a Capital Improvement/Investment of $0 for routine WCM updates; therefore, the estimated project cost is $0 which is less than the $45M criteria for a mandatory Type I IEPR.

Based on guidance presented in EC 1165-2-214, the update of the CHL&CRCW WCM does not require either Type I or Type II IEPR (see reference 1.c.11).

8. POLICY AND LEGAL COMPLIANCE REVIEW

All WCM updates will be reviewed for their compliance with law and policy. Guidance for policy and legal compliance reviews is addressed in Appendix H, ER 1105-2-100. These reviews culminate in determinations that the recommendations in the reports and the supporting analyses and coordination comply with law and policy, and warrant approval or further recommendation to higher authority by the home MSC Commander. DQC and ATR augment and complement the policy review processes by addressing compliance with pertinent published Army policies, particularly policies on analytical methods and the presentation of findings.

9. MODEL CERTIFICATION AND APPROVAL

The update of the CHL&CRCW WCM does not require the use of either planning or engineering models.

10. REVIEW SCHEDULES AND COSTS

a. ATR Schedule and Cost. Chicago District shall provide labor funding for the PDT, DQC and ATR Team members. The PDT Program Manager will coordinate with the ATR Lead to ensure adequate funding is available and is commensurate with the level of review needed. Any funding shortages will be negotiated on a case-by-case basis and in advance of a negative charge occurring. The ATR Lead shall provide organization codes for each team member and a responsible financial point of contact (CEFMS responsible employee) for creation of labor codes. Reviewers shall monitor individual labor code balances and alert the ATR Lead to any possible funding shortages. The ATR is estimated to cost $10,000. An estimated schedule is presented in Table 2 pending approval of the RP and availability of reviewers.

Table 2
ATR Schedule and Costs

Task	Start Date	End Date
ATR of CHL&CRCW WCM	11Aug2014	22Aug2014
PDT Evaluation of ATR Comments	22Aug2014	29Aug2014
ATR Backcheck	1Sep2014	5Sep2014

b. Type I and Type II IEPR Schedule and Cost. Not applicable.

c. Model Review Schedule and Cost. Not applicable**.**

11. PUBLIC PARTICIPATION

In accordance with ER 1110-2-240 Section 7.b.1 (b), no public meetings are expected as part of the CHL&CRCW WCM update; the revisions to the WCM are administrative or informational in nature and do not change the water control plan. The CHL&CRCW was built by Metropolitan Water Reclamation District of Greater Chicago (MWRDGC). In 1984 lock operation and maintenance responsibilities were transferred to USACE. Since MWRDGC retains ownership in the facility, review and concurrence from MWRDGC will also be needed.

12. REVIEW PLAN APPROVAL AND UPDATES

LRD is responsible for reviewing this RP and ensuring that use of the RP is appropriate for the update of the CHL&CRCW WCM update. The RP is a living document and may change as the WCM update progresses. The PDT Program Manager is responsible for keeping the RP up-to-date. Minor changes to the RP since the last LRD approval shall be documented in Attachment 3. Significant changes to the RP, such as changes to the scope and/or level of review, should be re-approved by LRD following the process used for initially approving the RP. Significant changes may result in LRD determining that use of the RP is no longer appropriate. In these cases, a new RP will be prepared and approved in accordance with EC 1165-2-214 and Director of Civil Works' Policy Memorandum(reference 1.c.11). The latest version of the RP, along with the LRD Commanders' approval memorandum, will be posted on Chicago District's webpage.

13. REVIEW PLAN POINTS OF CONTACT

Public questions and/or comments on this review plan can be directed to the following points of contact:

- Project Manager
- Hydraulic Engineer

ATTACHMENT 1: TEAM ROSTERS. Include contact information for the PDT, DQC Team, ATR Team, MSC (LRD) Team and the HQUSACE Vertical Team. The credential and years of experience for the ATR team should be included when it is available.

Product Delivery Team (PDT) Roster				
Team Member	**Organization**	**Expertise**	**Telephone**	**Email**

District Quality Control (DQC) Team Roster				
Team Member	**Organization**	**Expertise**	**Telephone**	**Email**

Agency Technical Review (ATR) Team Roster				
Team Member	**Organization**	**Expertise**	**Telephone**	**Email**

Vertical Team Roster				
Team Member	**Organization**	**Expertise**	**Telephone**	**Email**

ATTACHMENT 2: SAMPLE STATEMENT OF TECHNICAL REVIEW FOR OTHER WORK PRODUCTS

COMPLETION OF AGENCY TECHNICAL REVIEW

The Agency Technical Review (ATR) has been completed for the *<type of product>* for *<project name and location>*. The ATR was conducted as defined in the project's Review Plan to comply with the requirements of EC 1165-2-214. During the ATR, compliance with established policy principles and procedures, utilizing justified and valid assumptions, was verified. This included review of: assumptions, methods, procedures, and material used in analyses, alternatives evaluated, the appropriateness of data used and level obtained, and reasonableness of the results, including whether the product meets the customer's needs consistent with law and existing US Army Corps of Engineers policy. The ATR also assessed the District Quality Control (DQC) documentation and made the determination that the DQC activities employed appear to be appropriate and effective. All comments resulting from the ATR have been resolved and the comments have been closed in DrChecks[sm].

SIGNATURE _____ _____

Name Date
ATR Team Lead
Office Symbol/Company

SIGNATURE _____ _____

Name Date
Project Manager (Chicago District)
Office Symbol

SIGNATURE _____ _____

Name Date
Review Management Office Representative
Office Symbol

CERTIFICATION OF AGENCY TECHNICAL REVIEW

Significant concerns and the explanation of the resolution are as follows: *Describe the major technical concerns and their resolution.*

As noted above, all concerns resulting from the ATR of the project have been fully resolved.

SIGNATURE _____ _____

Name Date
Chief, Operations Division (Chicago District)
Office Symbol

SIGNATURE _____ _____

Name Date
Chief, Engineering Division (Chicago District)
Office Symbol

ATTACHMENT 3: REVIEW PLAN REVISIONS

Revision Date	Description of Change	Page / Paragraph Number

ATTACHMENT 4: ACRONYMS AND ABBREVIATIONS

Term	Definition	Term	Definition
ATR	Agency Technical Review	IEPR	Independent External Peer Review
CERCAP	Corps of Engineers Reviewer Certification and Access Program	LRD WM	LRD Water Management
CoP	Community of Practice	MSC	Major Subordinate Command
CHL&CRCW	Chicago Harbor Lock and Chicago River Controlling Works	MWRDGC	Metropolitan Water Reclamation District of Greater Chicago
DQC	District Quality Control/Quality Assurance	OMRR&R	Operation, Maintenance, Repair, Replacement, and Rehabilitation
EA	Environmental Assessment	O&M	Operation and maintenance
EC	Engineering Circular	PDT	Project Delivery Team
E&C	Engineering and Construction	PMP	Project Management Plan
ECB	Engineering and Construction Bulletin	RMO	Review Management Organization
EM	Engineering Manual	RP	Review Plan
ER	Engineering Regulation	USACE	U.S. Army Corps of Engineers
GLMRIS	Great Lakes and Mississippi River Interbasin Study	WCM	Water Control Manual
HQUSACE	Headquarters, U.S. Army Corps of Engineers	WCP	Water Control Plan

ATTACHMENT 5: NATIONAL PROGRAMMATIC REVIEW PLAN FOR ROUTING OPERATIONS AND MAINTENANCE (O&M) PRODUCTS

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS
441 G STREET, NW
WASHINGTON, D.C. 20314-1000

CECW

DEC 20 2012

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Programmatic Review Plan for Routine Operations and Maintenance Products

1. Purpose. This document is to serve as the U.S. Army Corps of Engineers (USACE) National Programmatic Review Plan (RP) for routine Operations and Maintenance (O&M) products as required by EC 1165-2-214 (Civil Works Review Policy). RPs are in place to ensure product credibility and serve to ensure compliance with applicable requirements for products. The purpose of this National Programmatic RP is to define the requirements, procedures, and specific details of how District Quality Control (DQC) will be conducted for routine O&M products. Appendix B of EC 1165-2-214 states:

> "For large projects, whether in planning, design, construction, or an operating project, a single RP covering all the various work associated with the project should be developed. However, when an activity generally covered under such an overarching RP involves complexities, controversy, or other attributes that would require review beyond that envisioned in the overall RP, a separate review plan is required for that activity. For example, at an operational Corps Lake, most routine activities would be covered under the overarching RP while others such as major rehabilitation studies, dam safety modification reports, activities requiring a separate environmental impact statement, etc. would require individual RP's".

The purpose of this National Programmatic RP is to serve as a single overarching plan to meet this requirement for all routine O&M products. The further intent of this RP is to highlight the requirements, procedures and specific details of how DQC will be conducted for routine O&M products.

2. References.

a. Engineering Circular No. 1165-2-214 - Water Resources Policies and Authorities Civil Works Review Policy.

b. USACE Memorandum Subject: Civil Works Response to Engineer Inspector General "Inspection of USACE Civil Works Review Processes, 22 August 2012".

c. USACE Memorandum Subject: Operations under a Fiscal Year 2013 Continuing Resolution-Civil Works Program, 12 September 2012.

3. Applicability. This National Programmatic RP applies to all routine O&M products that only require a DQC. In general, a product is a written document (e.g. plan, report, agreement, manual, contract, etc.), that presents results or findings of work activities that have been performed. This Review Plan does not apply to Decision or Implementation documents, or any other products that require Agency Technical Review (ATR) or Independent External Peer Review (IEPR).

4. Guidance. At a minimum, all routine O&M products require DQC review. Each routine O&M product must be evaluated against EC 1165-2-214; paragraph 15 to ensure an ATR and/or an IEPR is not required. If it is determined that an ATR and/or an IEPR are required, that routine O&M product must have a separate individual review plan submitted for approval. Refer to Enclosure 6 for a decision matrix on the process to determine if an ATR and/or an IEPR are required. The Routine O&M Product Determination Form must be completed for each routine O&M product (see Enclosure 7). The form shall include a statement that supports that the district has determined that the routine O&M product does not require an ATR and/or IEPR and be signed by the District Operations Chief or their designee. In addition, any routine O&M product that triggers any of the criteria contained within EC 1165-2-214, paragraph 15, should be coordinated with MSCs to ensure consistent and effective review are accomplished throughout a region.

Enclosures 1-5 include examples of routine O&M products that are covered by this Review Plan. This Review Plan is a living document and the list of products covered is not all inclusive. The appendices define, as a minimum, what office(s) must be involved in the DQC review for each product type. MSC business line managers, subject matter experts, etc., should be involved in DQC procedures where district DQC processes or MSC quality management processes dictate higher level review and/or coordination to ensure greatest efficiency and effectiveness of program and product delivery and to reduce disruption to regional systems, improve life safety, or to foster enhanced regional consistency and operations (see EC 1165-2-214 Appendix F).

In addition, review procedures addressed in existing technical engineering circulars and/or engineering regulations should be followed, as required, even if those activities are routine and may be covered by this RP.

This RP does not obviate the need for districts to provide a complete package for routine O&M products for MSC approval where MSC commander or their designee's approval is required.

5. District Quality Control Review. DQC is required for all routine O&M products covered under this National Programmatic RP. District quality control manuals will prescribe specific procedures for the conduct of DQC including documentation requirements and maintenance of associated records for internal audits to check for proper DQC implementation. Basic quality control tools include a Quality Management Plan providing for seamless review, quality checks and reviews, supervisory reviews, Project Delivery Team reviews, etc.

Quality checks and reviews occur during the development process and are carried out as a routine management practice. Quality checks may be performed by staff responsible for the work, such as supervisors, work leaders, team leaders, designated individuals from the senior staff, or other qualified personnel. However, they should not be performed by the same people who performed the original work, including managing/reviewing the work in the case of contracted efforts.

DQC efforts will include the necessary expertise to address compliance with published Corps policy. When policy and/or legal concerns arise during DQC efforts that are not readily and mutually resolved by the PDT and the reviewers, the district will seek resolution support from the MSC and HQUSACE.

6. By my signature below, this RP is approved and will be posted on the HQUSACE website. O&M projects that develop the routine O&M products covered in this RP shall use the approval date of this memorandum for their P2 CW035 milestone.

7. This National Programmatic RP for routine O&M products is a living document. Periodic reviews and updates to this plan are expected to occur and may result in improvements to this plan. My point of contact for this action is Ms. Margaret Gaffney-Smith, Acting Deputy Chief, Operations and Regulatory Division who can be reached at 202-761-8560 or meg.e.gaffney-smith@usace.army.mil.

FOR THE COMMANDER:

STEVEN L. STOCKTON, P.E.
Director of Civil Works

Encls
1. Hydropower
2. Navigation
3. Natural Resource Management
4. Flood Risk Management
5. Other Miscellaneous O&M Products
6. Decision Matrix Prior to Using Routine O&M Review Plan
7. Routine O&M Work Product Determination Form

Enclosure 1

Hydropower
Routine O&M Products

Routine O&M Product	Review Team		
	District BLM	District Offices	HDC
Changes to Control System, SCADA Systems, PLC Based Systems and Other Software Configurable Devices	X	Rg HTC, IAM	X
Changes to Telecommunications Systems that are Used for SCADA/Control Systems	X	Rg HTC, IAM	
Development/Update of Drawings and Manuals	X	Rg HTC	
Equipment and System Repairs and Direct Component Replacement for Hydropower Equipment*	X	Rg HTC	X
Equipment and System Repairs and Direct Component Replacement for non-Hydropower Equipment	X	EN, Rg HTC	
Maintenance Plans	X	Rg HTC	
Project Operation Plans – e.g. Black Start	X	Rg HTC	
Protective Relaying – Replacements or Setting Changes	X	Rg HTC	X
Testing Plans and Procedures	X	Rg HTC	

* As defined in ER 1110-2-109

BLM – Local District's Hydropower Business Line Manager
EN – Engineering Division
HDC – Hydroelectric Design Center
IAM – Information Assurance Manager
Rg HTC – Regional Hydropower Technical Center (If Applicable)

Enclosure 2

Navigation
Routine O&M Products

Routine O&M Product	Review Team		
	BLM	District Offices	MDC
Advanced Maintenance Dredging Requests	X	EN	
Condition Surveys, Reports and Assessments (Channels and Structures)	X	EN	
Debris Removal Plans	X		
Disposal Site Dike Raise Plans to Include Construction Funded	X	EN	
Dredged Material Management Plans	X	EN, PD, OC, RE	
Dredged Material Placement Facility Management Plans	X	EN	
Emergency Dredging Requests	X	PD	
Environmental Compliance Documents and Reports – Including Environmental Assessments and Biological Assessments	X	EN/PD	
Fish Monitoring Reports	X	PD	
Floating Plant Procurement Documents	X		X
Funding Agreements	X	OC, PD	
Letter Reports/Monitoring Plans	X	EN, PD	
Lock Closure Plan	X	PA, NAV CX	
Lock Levels of Service Plans	X	PA	
Maintenance Dredging Documents	X		
Maintenance Plans	X		
Major Floating Plant Repair Documents*	X		X
Major Maintenance Reports	X	EN	
Minor Floating Plant Repair Documents	X		
Periodic Inspections and Operational Condition Assessment	X	EN	
Plan for In-Place Repairs on Major Components, including Plans and Specifications	X	EN	
Plan for In-Place Repairs on Minor Components, including Plans and Specifications	X		
Plans for Structure Maintenance – Including Jetties and Bridges	X	EN	
Project Operation Plans	X		
Raise the Flag Requests	X		
Safety Sign Plans/Replacement (Structures)	X	EN	
Sampling & Analysis Plans	X	EN, PD	

Sand Mitigation Documents	X	EN	
Sounding Charts	X	EN	
Water Quality Reports & NOIs	X	EN, PD	
Wreck Removal Plans	X		

* Items requiring PRIP funding are considered major.

BLM – Local District's Navigation Business Line Manager
EN – Engineering Division
MDC – Marine Design Center
NAV CX – Navigation Regional Center of Expertise (If Applicable)
OC – Office of Counsel
PA – Public Affairs Office
PD – Planning Division
RE – Real Estate Division

Enclosure 3

Natural Resource Management
Routine O&M Products

Routine O&M Product	Review Team	
	OP NRM/BLM	District Offices
Accessibility Survey/ Transition Plans	X	
Annual Pesticide Mgt Plans	X	ECC
Annual Water Safety Plan	X	SO
Annual Work Plan	X	
Categorical Exclusion Records of Decision and Environmental Assessment Documents	X	PD
Contributions Plans	X	OC, RM
Cooperative Association Agreements	X	OC, RM, RE
Environmental Compliance Reviews (ERGO)		ECC
Environmental Management System Documents and Plans.		ECC
Historic Properties/Cultural Resources Management Plan	X	ECC, PD
Master Plans and Updates w/o an EIS	X	PD, RE, OC
OMB Approved Surveys	X	
Operational Management Plans (includes but not limited to plans related to park, forest, wildlife, vegetation, threatened and endangered species and fire management.)	X	
Park Closure/Significant Operational Change Plans	X	PA
Park development plans	X	EN
Partnership Agreements	X	OC, RM, RE
Preliminary Assessment Survey for Real Estate Instrument, Environmental Condition Property Report or Report of Availability (ROA) for (Lease/License) New & renewal	X	RE, ECC
Prescribed Fire Plan	X	SO
Project Sign Plans	X	
Publications/Brochures	X	PA
Routine Maintenance Plans	X	
Shoreline Mgt Plans w/o an EIS	X	OC, RE, SO
Spill Prevention and Control Plans	X	ECC, SO

BLM – Local District's REC or ES Business Line Manager
ECC – Environmental Compliance Coordinator
EN – Engineering Division
NRM – Natural Resource Manager
OC – Office of Counsel
PA – Public Affairs
PD – Planning Division
RE – Real Estate
RM - Resource Management
SO – Safety Office

Enclosure 4

Flood Risk Management
Routine O&M Products

Routine O&M Product	Review Team	
	BLM	District Offices
Closure Plan	X	RCX
Emergency Action Plans	X	OPS, EN, PAO
Funding Agreements	X	OC, PD
In-Place Repairs on Major Components, including Plans and Specifications	X	EN
In-Place Repairs on Minor Components, including Plans and Specifications	X	OPS
Interim Risk Reduction Measures	X	EN, RCX, PAO
Maintenance Plans (Dams)	X	OPS, EN
Major Plant Repairs*	X	EN, RCX
Minor Plant Repairs	X	OPS
Periodic Assessments	X	EN, RCX
Periodic Inspections**	X	EN
Project Operation Plans (Dams)	X	OPS, EN
Reservoir Scheduling/Deviations	X	EN
Routine Inspections**	X	EN

* Items requiring PRIP funding are considered major.
**Follow existing DQC requirements for Dam & Levee Safety Program ECs and ERs and their associated processes.

BLM – Local District's FRM Business Line Manager
EN – Engineering Division
OC – Office of Counsel
PD – Planning Division
RCX – Regional Center of Expertise (If Applicable)
OPS – Operations Division

Enclosure 5

Other Miscellaneous O&M Products

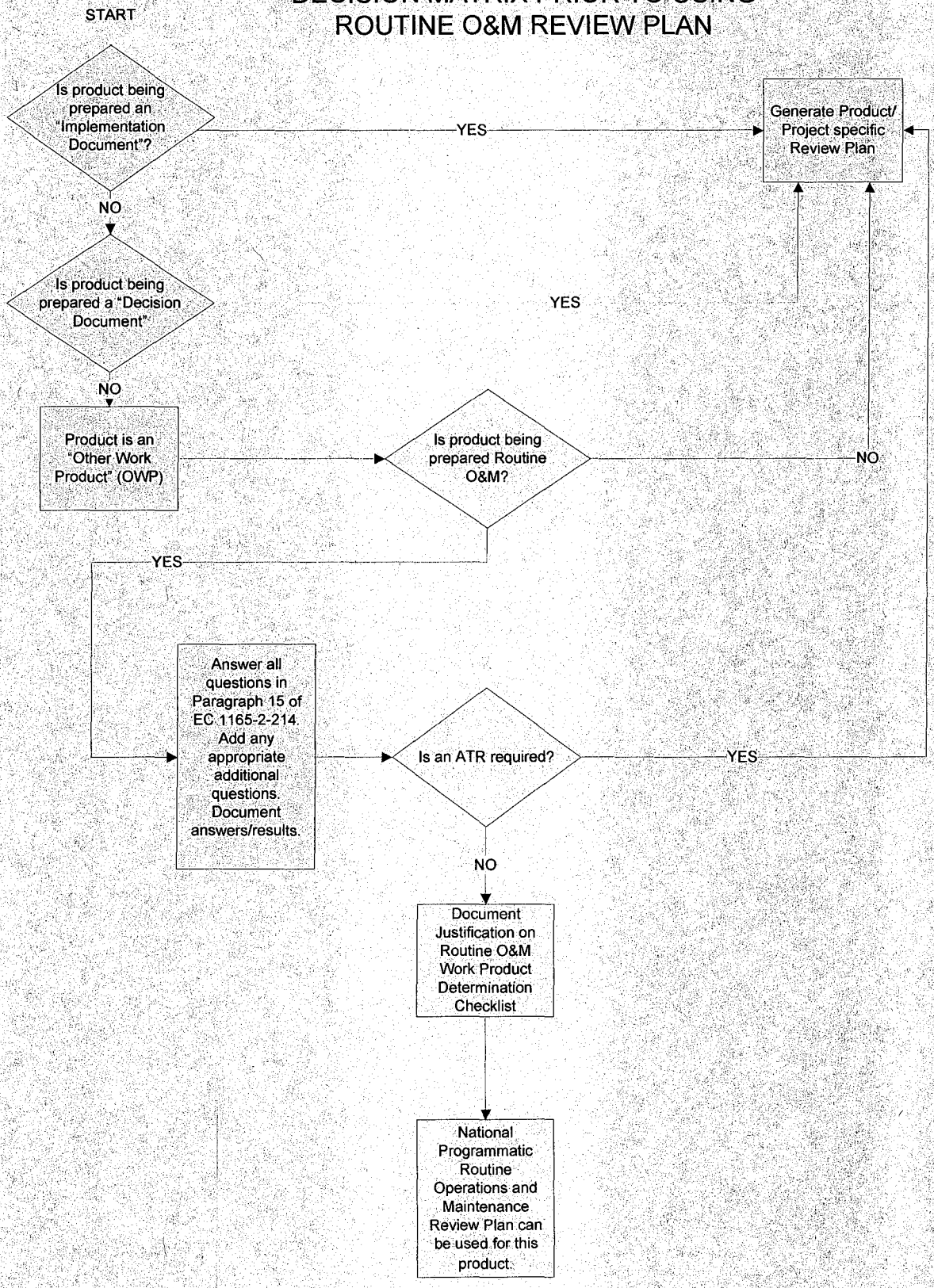
Routine O&M Product	Review Team	
	District OPS	District Offices
Communications Plans	X	PA, RCX, EN
COR Reports	X	
District Budgets (i.e. Operating Budget)	X	
District Workload Assessment	X	PM
Facility and Equipment Maintenance (FEM) Program Plans	X	RMM
Operational Condition Assessments (OCA) Program Plans	X	EN, BLM, RAM, RMM
PRIP Requests	X	RM
Routine Contracts* Including Plans & Specifications	X	CT
Sustainability Reports	X	
Visa Reports	X	

* District contracting procedures must be followed including BCOE review if applicable

BLM – Local District's Business Line Manager for the Work Product
PA – Public Affairs Office
CT – Contracting
PM – Project Management
RAM – Regional Asset Manager
RMM – Regional Maintenance Manager

Enclosure 6

DECISION MATRIX PRIOR TO USING ROUTINE O&M REVIEW PLAN



Enclosure 7

Routine O&M
Work Product Determination Form

Work Product Description: _____

Facility: _____

This work product is an Other Work Product per EC 1165-2-214 **Y / N**

This work product is Routine O&M **Y / N**

Does not require an ATR per EC 1165-2-214 paragraph 15 **Y / N**

Justification: _____

_____

_____

Note: If any of the above are no, the Routine O&M Review Plan cannot be used.

_____ _____

Chief, Operations Division **Date**

ATTACHMENT 6: POLICY GUIDANCE LETTER – PEER REVIEW OF UPDATES TO WATER CONTROL MANUALS

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS
441 G STREET, NW
WASHINGTON, DC 20314-1000

REPLY TO
ATTENTION OF

JUL 2 2013

CECW-CE

MEMORANDUM FOR COMMANDERS, MAJOR SUBORDINATE COMMANDS

SUBJECT: Policy Guidance Letter – Peer Review of Updates to Water Control Manuals

1. Purpose. This guidance letter clarifies application of civil works review policy for Updates to Water Control Manuals.

2. Applicability. This guidance letter applies to all Headquarters US Army Corps of Engineers (HQUSACE) elements, Major Subordinate Commands (MSCs), districts, and field operating activities having responsibility for Civil Works Projects.

3. References:

a. EC 1165-2-214, Civil Works Review, dated 15 December 2012

b. ER 1110-2-240, Water Control Management, Change 2, dated 11 August 1992

c. EM 1110-2-3600, Management of Water Control Systems, dated 30 November 1987

d. CECW Memorandum dated 20 December 2012, Programmatic Review Plan for Routine Operations and Maintenance Products

e. EC 1102-2-204, Budget Development Guidance Fiscal Year 2015, dated 31 March 2013

4. General Policy Guidance:

a. The National Programmatic Review Plan for Routine Operations and Maintenance Products, reference 1.d, is applicable to all routine O&M products that only require District Quality Control (DQC). At a minimum, all routine O&M products require DQC review. The Programmatic Review Plan is applicable to revisions to Water Control Manuals that are administrative or informational in nature and do not change the water control plan and do not require public meetings in accordance with ER 1110-2-240.

b. Each routine O&M product must be evaluated against EC 1165-2-214, paragraph 15 to ensure an Agency Technical Review (ATR) and/or an Independent External Peer Review (IEPR) is not required. Water Control Manual Updates that include changes to the operation of the project or revisions to Chapter 7 of the manual must have a separate individual review plan prepared and submitted for approval, and will undergo ATR as a minimum.

c. For application of the policy contained in EC 1165-2-214, a "decision document" is defined as a product that provides analysis and recommendations for an Agency decision to obtain project authorization to commit Federal funds for project implementation or project modification. They are the basis for approval to spend/receive funds as a result of entering into agreements with other agencies or organizations including those to obtain Congressional authorization. The decision document phase is the initial concept design phase of a project. An "implementation document" is defined as a document prepared, generally subsequent to the decision document (e.g. Plans and Specifications), that supports project implementation or project modification in accordance with the decision document and its authorization. Updates to Water Control Manuals would generally be categorized as "other work products." Authorities for allocation of storage and regulation of projects owned and operated by the Corps of Engineers are contained in legislative authorization acts and referenced project documents. These public laws and project documents usually contain provisions for development of water control plans, and appropriate revisions thereto, under the discretionary authority of the Chief of Engineers. Some modifications in project operation are permitted under congressional enactments subsequent to original project authorization.

d. Any work product, report, evaluation, or assessment that undergoes DQC and ATR also may be required to undergo IEPR under certain circumstances. A risk-informed decision, as described in paragraph 15 of EC 1165-2-214, will be made as to whether IEPR is appropriate for that product. A deliberate, risk informed recommendation whether to undertake IEPR on updates to water control manuals which include revisions to Chapter 7 shall be made and documented in an individual project specific review plan. The recommendation will be submitted to the MSC. The MSC Commander has approval authority to undertake IEPR. Depending on the scope and nature of the changes, some revisions to Chapter 7 of water control manuals may trigger IEPR under certain circumstances. The PDT shall explicitly consider the consequences of nonperformance on project economics, the environment, and social well-being (public safety and social justice), as well as indicate whether the update is likely to contain influential scientific information or be a highly influential scientific assessment; or involve any other issues that provide a rationale for determining that IEPR is appropriate. Revisions to Chapter 7 do not necessarily trigger a mandatory IEPR and as such, requests for exclusion should be rare.

5. Application of Policy Guidance. This clarification is effective immediately.

6. The point of contact for this guidance is Jerry Webb, P.E., D. WRE, Principal Hydrologic & Hydraulic Engineer, Hydrology & Coastal Community of Practice Leader 202-761-4605.

JAMES C. DALTON, P.E. SES
Chief, Engineering and Construction Division
Directorate of Civil Works