Department of the Army
U.S. Army Corps of Engineers
Washington, DC

Engineer Circular 1130-2-552

17 June 2025

CECW-OP

EXPIRES 17 December 2026

Project Operation
Civil Works Operational Readiness Reporting Policy

FOR THE COMMANDER:

Digitally signed by DELAROSA.DAMON.ANDREW.1134345566
Date: 2025.06.06 13:24:22 -04'00'

DAMON A. DELAROSA
COL, EN
Chief of Staff

Purpose. The purpose of this engineer circular (EC) is to define and establish a consistent enterprise-wide requirement for reporting the operational readiness of all critical U.S. Army Corps of Engineers (USACE) Civil Works (CW) assets in the Facilities and Equipment Maintenance (FEM) system.

Applicability. This EC is applicable to all USACE major subordinate commands (MSCs) and USACE Logistics Activity (ULA) managing CW assets, to include Division and District HQ facilities. Implementation and compliance within ULA will align with ULA organizational requirements.

Distribution Statement. Approved for public release; distribution is unlimited.

Proponent and Exception Authority. The proponent of this regulation is the Chief of Operations Division. The proponent has the authority to approve exceptions or waivers to this regulation that are consistent with controlling law and regulations. Only the proponent of a publication or form may modify it by officially revising or rescinding it.

SUMMARY of CHANGE

EC 1130-2-552
Civil Works Operational Readiness Reporting Policy

This extension, dated 17 June 2025:

- Waiver approved by the Publications Program Manager to extend publication for 18 months.
- Extension is approved due to the methodology in this EC being required to effectively identify, manage, and communicate USACE Civil Works portfolio of unaccomplished maintenance needs. Without this methodology in place, the agency would have limited visibility of Civil Works maintenance backlog, creating the potential for an increase in unscheduled outages and failures that could impact national security and public safe
- The extension will provide the program office additional time to write a permanent publication.
- The EC is valid until either formally rescinded, another publication provides overwriting guidance, or 18-months from signature date.

Department of the Army
U.S. Army Corps of Engineers
Washington, DC

Engineer Circular 1130-2-552

1 June 2023

CECW-OP

EXPIRES 31 MAY 2025

Project Operation
Civil Works Operational Readiness Reporting Policy

FOR THE COMMANDER:

Edward E. Belk, Jr PE
2023.05.26 08:58:05
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EDWARD E. BELK
Director of Civil Works

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Contents (Listed by chapter and page number)

1. Purpose

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4. References

a. Department of Defense Instruction (DODI) 3110.05, September 25, 2006. DoDI 3110.05, September 25, 2006, Incorporating Change 1, August 31, 2018 (whs.mil)

b. FRAGO 1 (MMIP Implementation Process Phase 1) to OPORD 2013-01, August 2015. FRAGO 1 (MMIP Implementation Process Phase 1) to OPORD 2013-01 (USACE Infrastructure Strategy).pdf (army.mil)

c. Daily Tasking Order 16-03-24 (Phase 3 of the MMIP per OPORD 2013-01) to OPORD 2015-52. March 2016. USACE Daily Tasking Order 16-03-24.pdf (army.mil)

d. Memorandum, CECW, Subject: USACE-wide Applicability of Facilities and Equipment Maintenance (FEM) System. FEM National Support Center - 20110304 FEM National Applicability memo.pdf - All Documents (dps.mil)

e. Engineering Regulation 1130-2-500, December 27, 1996, Partners and Support (Work Management Policies), US Army Corps of Engineers. https://www.publications.usace.army.mil/Portals/76/Publications/EngineerRegulations/ER_1130-2-500.pdf

f. Memorandum, CECW-CO, September 26, 2007, Subject: Implementation of Facilities and Equipment Maintenance for Asset Management.

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 is 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 (DA) Pamphlet 25-403, Guide to Recordkeeping in the Army, for guidance.

6. Overview

This policy provides guidance for reporting the operational readiness status of all USACE CW critical assets. It is USACE CW policy that the operational readiness status of all critical assets identified in reference (b) be maintained and communicated.

This policy does NOT replace any existing processes for reporting changes in operational readiness status of USACE CW facilities and assets nor does the policy replace any existing 3rd party stakeholder notification requirements.

USACE CW functional leaders, business line managers, and command leadership and staff require visibility of the readiness of critical assets. USACE CW asset managers require information about the downtime history of critical assets. Modern asset management systems provide convenient methods for facility level leaders to communicate asset readiness concerns in real-time as part of routine work order processes and capture downtime history. Critical assets are those items of equipment or project facilities (or components) where a failure would be critical with respect to the functioning of the project to accomplish its assigned mission; would endanger the health and safety of the public or project employees; or violates law. For instance, if a miter gate cylinder fails and is not able to open and close, a lock would not be able to operate, making the miter gate cylinder a critical asset. Another example could be if a motor breaks down on a crane, the crane would not be able to function and make lifts.

7. Responsibilities

a. The Chief of Operations at the Major Subordinate Command is responsible for oversight and coordination within the region to ensure maintenance priorities are set consistently, critical assets are identified, and vertical communication about readiness is maintained.

b. The Chief of Operations at the District level is responsible for reporting the operational readiness condition of critical assets at facilities in their respective areas of responsibility.

c. Operations Managers and Operations Project Managers (OMs/OPMs) are to immediately communicate non-operational readiness status for any critical asset under their administrative control. OMs/OPMs are responsible for incorporating asset operational readiness status reporting for critical assets into routine business practices at their facilities.

8. Procedures

USACE CW assets are generally maintained in an operationally ready condition (i.e., the asset functions to meet its featured mission). These procedures are structured to address changes in status of operational readiness condition. Each USACE District must have a business process for the continuous identification of asset conditions that affect the operational readiness status of critical assets.

a. Not operationally ready condition refers to the state of an asset or component and exists when it is unable (i) to move under its own power, or (ii) to perform its identified mission, or (iii) physical degradation of the asset or component prevents legal operation within the requirements of applicable laws.

b. Not operationally ready status refers to an organizational recognition of the condition of an asset or component and exists when the determination is made that an asset (in a not operational ready condition) cannot be returned to an operationally ready condition within 4 hours or when it has been in a not operationally ready condition for 4 hours, whichever occurs first.

c. If loss of a critical component or system of components causes a system asset condition to become not operationally ready, then the system asset condition is reported as not operationally ready. Accordingly, the operational readiness status of the system asset will follow the procedure in paragraph b above. Conversely, if the system asset remains in operationally ready condition while a component is non-operationally ready, the system asset status is operationally ready; reflecting it is currently capable of performing its featured mission.

d. Carrying out routine preventive maintenance actions and inspections may cause the asset undergoing maintenance or inspection to be in a not operationally ready condition. The manager is not expected by this policy to consider such temporary loss of readiness as a not operationally ready status when caused by preventive maintenance action or inspection undertaken as part of the manufacturer's recommendation, agency maintenance standards, or project operation and maintenance plans. When the preventive maintenance action or inspection is undertaken as a result of asset deterioration requiring additional monitoring or to mitigate degraded asset conditions the manager is required to report non-operational readiness conditions resulting from these actions when they last more than 4 hours.

e. The FEM system's downtime feature will be used to record and report operationally ready and not operationally ready statuses for critical components and the systems affected. OMs/OPMs will ensure operational readiness status information on critical components is current in FEM at all times; particular attention is required when status changes from operationally ready to not operationally ready as described in paragraph b above. Managers may also utilize FEM downtime reporting features for non-critical assets to meet local maintenance program requirements.

(1) Not operationally ready status for critical assets will be reported in FEM, on a near real-time basis; before the close of business, and no later than midnight local time on the day a determination has been made that the circumstance in paragraph b above applies to a critical asset.

(2) Most recordable asset downtime will be associated with planned maintenance, allowing the downtime reporting in FEM to be scheduled into the work planning process. However, there will be instances of unexpected failures that prevent a facility from reporting downtime within time constraints listed in the guidance. In such cases, OMs/OPMs will ensure asset downtime is reported in FEM as soon as practicable following the unexpected failure.

(3) An asset's operational readiness status changes from not -operationally ready to operationally ready status when the OM/OPM has determined the cause of the not operationally ready condition has been resolved, and the asset is capable of performing its featured mission as designed. OMs/OPMs will ensure downtime information is updated immediately in FEM when an asset's status changes from not operational ready to operationally ready.

f. OMs/OPMs will understand asset downtime reporting as described in this policy and ensure employees responsible for utilizing FEM have received applicable training and are able to enter downtime for critical assets in FEM according to the latest guidance from the FEM National Support Center (NSC).

Appendix A
Operational Readiness Reporting Procedures

A–1. Overview
The appendix identifies roles and responsibilities, implementation strategies, and training resources.

A–2. Applicability
This EC and appendix are applicable to all USACE Major Subordinate Commands (MSCs) having Civil Works (CW) responsibilities. USACE Logistics Activity (ULA) will be responsible for compliance with the policy and procedures as it applies to all USACE CW assets. Implementation and compliance should follow ULA's organizational requirements.

A–3. Responsibilities
a. The HQUSACE CW Asset Manager will oversee the implementation and execution of this EC by communicating the policy to the MSC Chief of Operations (CHOP) and their roles and responsibilities for implementing and complying with the policy.

b. USACE CW National Maintenance Manager will communicate to the MSC CHOPs, Operations Project Managers (OPMs), Asset Management (AM) Community of Practice (CoP), FEM Users, and others on the purpose of the policy and the implementation requirements. The National Maintenance Manager will ensure operational readiness status of critical asset reports will be available on the Enterprise Data Warehouse (EDW).

c. FEM Project Manager will ensure the FEM National Support Center (NSC) provides keystroke training during implementation.

d. MSC Chief of Operations (MSC CHOPs) are responsible for oversight and coordination within their region, to ensure a plan for complying with the policy is created and enforced by all districts. MSC CHOPs should be knowledgeable on sources available for accessing the operational readiness status of the region's critical assets, knowing the critical assets that are in a not operationally ready condition within their region, and participating in quarterly compliance reviews with District CHOP and Regional Asset Manager (RAM).

e. RAMs will coordinate with MSC CHOPs, District CHOPs, and regional AM CoP regarding compliance with the policy and are responsible for holding quarterly meetings for reviewing the operational readiness status of critical assets within the region. RAMs will be responsible for supporting the implementation of the policy, vetting regional questions regarding implementation, and reviewing reports.

f. District Chief of Operations (District CHOPs) are responsible for implementing the guidance established by the MSC. District CHOPs will conduct a quarterly review with MSC CHOPs regarding the operational readiness status of critical assets. District CHOPs will coordinate with the OPMs on a monthly frequency to review the critical assets that are reported as not operationally ready.

g. Operations Project Managers (OPMs) will ensure the facility complies with the policy by reviewing EDW reports weekly for accuracy regarding the operational readiness status of all critical assets. In addition, FEM Result Sets can be created on the FEM Start Center to review critical assets reported in a not operationally ready status.

h. Maintenance managers will ensure all critical assets in a not operationally ready condition for more than 4 hours be reported as ‘not running’ in FEM. Maintenance managers should review this information weekly and coordinate reports with the OPM on not operationally ready assets to verify the correct assets are reported as ‘not running’. Enterprise EDW FEM reports should be referred to when checking data, along with creating a Result Set on the FEM Start Center to view assets reported in a not operationally ready status.

A–4. Procedures

a. Maintenance – Operational Readiness / Downtime Reporting.

(1) Recording the not operationally ready status of a critical asset should be accomplished using the FEM Report Downtime feature. Recording a not operationally ready status is required to be completed by close of business or midnight the day the asset is identified as not operationally ready.

(2) Not operationally ready status should be recorded against the affected critical asset or component on a Work Order (WO) and identified in the WO Asset field. The affected system should be reported in the WO section titled “Multi Assets, Locations and CI” . Job Plan records used in conjunction with a Preventive Maintenance (PM) record identify PM WOs that require operational readiness status reporting. The Requires Asset Downtime field check box creates this link. In the case of a WO that has generated from the PM application, the system will be reported in the WO section titled “Multi Assets, Locations and CI”.

(3) Examples of the systems that should be reported in the section titled “Multi Assets, Locations and CI” may include but are not limited to a hydropower main unit, air system, bulkhead/stoplog, penstock, crane, switchyard, transformer, gate, lock chamber, lock fill and empty systems, lock or dam gates, lock or dam operating machinery, bridges, dam/embankment, outlet works, spillway, buildings, roads/parking, boat ramp, recreation sites, or floating plant.

(4) If a Parent/Child WO relationship has been established, the determination by the manager would be required to identify the proper WO used to record operational readiness status reporting. The system will be reported in the WO section titled “Multi Assets, Locations and CI”.

(5) Caution should be taken when operational readiness status is recorded against an asset that may have multiple WOs for various crafts. Determination by the maintenance manager would be required to identify the proper WO used to report operational readiness status.

(6) The list below is the Downtime Codes in FEM for recording a critical asset as not operationally ready status.

- SCHEDULED. The time required to work on an asset that has been scheduled for maintenance.

- UNSCHEDULED. The time an asset is down for repairs that have not been scheduled for maintenance. The Downtime Code Compliance does not require a WO. Not operationally ready status of the critical asset should be reported. Reporting operational readiness status changes without a work order may be completed in the Assets application in lieu of the WO application.

b. The following are scenarios for reporting operational readiness status in FEM. Unless changed by an action in FEM, the default operational readiness status for assets in FEM is up or is running. Action in FEM is required to record a not operationally ready status. Also, operator action is required to return an asset to up or is running status following repair and restoration of operationally ready condition of an asset.

(1) PM – PM work or inspections that are required in response to asset deterioration and increased monitoring regime or to mitigate degraded asset conditions on critical assets which cause the asset to be in a not operationally ready condition for more than 4 hours must have the not operationally ready status reported. The not operationally ready status is recorded against the PM asset and identified in the WO Asset field. The system affected by the PM event is reported after PM WO generation in the FEM WO section titled “Multi Assets, Locations and CI” .

(a) Step 1: Job Plans having a requirement for reporting a not operationally ready status should be identified in the Job Plan application by checking the Requires Asset Downtime field check box.

(b) Step 2: The Job Plan should identify the duration of the work.

(c) Step 3: Upon maintenance execution, the asset should be recorded as not running on the WO.

(d) Step 4: The Downtime Report Status Date field should reflect the correct date and local time the asset began a not running condition.

(e) Step 5: The Downtime Code field should be identified as SCHEDULED.

(f) Step 6: When the critical asset’s operationally ready condition is recovered, the asset should be returned to an operationally ready or is running status.

(g) Step 7: The Downtime Report Status Date field should reflect the correct date and local time the critical asset returned to an operationally ready condition.

(2) Corrective Maintenance (CM) identified during PM work - During PM work, corrective maintenance outside the scope of the PM may be identified on a critical asset that will cause a not operationally ready condition lasting more than 4 hours. Under these circumstances, the follow procedure should be followed:

(a) Step 1: PM work continues to completion.

- The PM asset will be identified as default operationally ready or is running upon completion of the PM WO.
- Ensure the Asset Up field check box is checked on the PM WO prior to reporting operational readiness status on the CM WO.

(b) Step 2: A CM WO is created for the out-of-scope work. The affected asset is identified in the WO Asset field. The system affected by the maintenance event is identified in the FEM WO section titled “Multi Assets, Locations and CI’s” if it is not the asset identified on the CM WO.

- The CM WO should identify the duration of the work.

(c) *Step 3*: When management communicates the asset is in a not operationally ready status, the asset should be recorded as not operationally ready or not running on the CM WO.

- The Downtime Report Status Date field should reflect the correct date and local time the asset became not operationally ready condition or not running condition.
- The Downtime Code field should be identified as UNSCHEDULED.

(d) *Step 4*: When the critical asset's operationally ready condition is recovered, the asset should be returned to an operationally ready or is running status.

- The Downtime Report Status Date field should reflect the correct date and local time the critical asset returned to an operationally ready condition.

(3) CM – CM has been identified which will result in a critical asset's not operationally ready status.

(a) *Step 1*: A CM WO is created. The affected asset is identified in the WO Asset field. The system affected by the maintenance event is identified in the FEM WO section titled "Multi Assets, Locations and CI" if it is not the asset identified on the CM WO.

- The CM WO should identify the duration of the work.
- Ensure the Asset Up field check box is checked prior to reporting operational readiness status.

(b) *Step 2*: When management communicates the asset is in a not operationally ready status, the asset should be recorded as not operational or not running on the CM WO.

- The Downtime Report Status Date field should reflect the correct date and local time the asset began a not operationally ready or not running condition.
- The Downtime Code field should be identified as UNSCHEDULED.

(c) *Step 3*: When the critical asset is returned to operationally ready condition, the Asset should be returned to an operational readiness or is running status.

- The Downtime Report Status Date field should reflect the correct date and local time the critical asset returned to an operationally ready condition.

c. Considerations.

(1) Parent/Child Work Orders: Parent/Child WOs may be helpful when several WOs address a major system in a not operationally ready status

(a) The system in a not operationally ready status should be identified on the Parent WO.

(b) PM hierarchies may be helpful to organize critical asset operational readiness reporting requirements on PM work.

(2) Waiting Disposal Assets. Critical assets that are in a Waiting Disposal status have a requirement for reporting operational readiness status. Critical assets reported as not operationally ready and accruing downtime should be returned to operationally ready status prior to changing the Asset Status to Decommissioned or Disposed.

(3) Decommissioned, Disposed, or Missing Assets. Critical assets that are in a status of decommissioned, disposed, or missing have no requirement for reporting operational readiness status. Critical assets reported as not operationally ready and accruing downtime should be returned to operationally ready status prior to changing the asset status to Decommissioned, Disposed, or Missing.

A–5. Records and measurements

a. EDW Report: “Critical Assets in a Not Operationally Ready Status.” The report provides a list of systems down that have been impacted by the critical asset. It identifies the facility, system, asset and asset name, date the asset went down, and the description of the issue.

b. Qlik Sense Application: “Overview of Critical Assets in a Not Operationally Ready Status.” The visualization provides an overview at the MSC, district, and facility level of critical assets in a not operationally ready status with the date it went down and a description of the issue.

A–6. Training

Training will be provided by the FEM NSC through standard NSC training courses, User Guides, and Quick Cards. All training guides will be available on the FEM SharePoint site.

Glossary of Terms

Asset
Any resource, facility, area, structure, installation, or piece of equipment for which USACE has the maintenance responsibility to identify needs, prioritize maintenance activities, perform maintenance, and/or track results.

Asset Criticality
Referring to a FEM tool (and record) to prioritize assets according to their relative criticality. This tool is used, with urgency of the work itself, to assist managers in prioritizing maintenance work. Criticality ranges from one to 10. One is the lowest criticality and 10 is the highest criticality. In alignment with Engineering Regulation 1130-2-500, asset criticality should be recorded one to five for non-critical assets and six to 10 for critical. Assets can be safety-critical, environment-critical, or performance-critical and can relate to legal, regulatory, or statutory requirements. Increased values for asset criticality designate those assets as necessary to achieve the organization's objectives.

Asset Management (AM)
The coordinated activity of the USACE CW to realize value from assets. Realization of value involves a balancing of costs, risks, opportunities, and performance benefits.

Component
For the purposes of maintenance management, a component is a defined part or feature of a USACE asset that will be maintained, repaired, or replaced. For example, a roof, exterior building envelope, and the Heating, Ventilating, and Air Conditioning system are components of a building asset.

Corrective Maintenance (CM)
The repair or renewal of an item which has failed or is about to fail. In a mature maintenance organization this corrective maintenance work is frequently identified during the performance of preventive maintenance work and corrected before an unplanned failure occurs.

Critical Asset
The priority of equipment or project facilities (assets, components, and equipment) where a failure would directly impact the functioning of the project to accomplish its assigned mission; would endanger the health and safety of the public or project employees; or would result in substantial losses (ER 1130-2-500 Priority A). Criticality relates to the facility's impact on mission delivery and is not a surrogate for ranking the relative importance of different missions or USACE business lines.

Facilities and Equipment Maintenance (FEM) System
Facilities and Equipment Maintenance System is the Department of Defense Joint Logistics Systems Center's standard Computerized Maintenance Management System. FEM is the USACE tailored version of MAXIMO Enterprise Base System, which is a Commercial-Off-the-Shelf System. FEM is an enabler for life cycle asset management, providing critical data and information required to meet real property performance measures related to right cost and condition of assets. (Memorandum, CECW-CO, Implementation of Facilities and Equipment Maintenance for Asset Management, dated 26 September 2007).

Not Operationally ready Condition
Refers to the state of an asset or component and exists when it is unable (i) to move under its own power, or (ii) perform its identified mission, or (iii) be legally operated within the requirements of applicable laws of the United States of America or local jurisdictions because of physical degradation of the asset or component.

Not Operationally ready Status
Refers to the organizational recognition of the condition of an asset or component and exists when the determination is made that an asset (in a non-operationally ready condition) cannot be returned to an operationally ready condition within 4 hours or when it has been in a not operationally ready condition for 4 hours, whichever occurs first. This status is recorded in the FEM system feature used to track and report downtime. When the Asset Up checkbox is unchecked, the asset is not running or in a not operationally ready condition. Not Operationally ready Status is often referred to as downtime.

Operationally ready Condition
Refers to the state of an asset or component and exists when it is able (i) to move under its own power, or (ii) perform its identified mission, or (iii) be legally operated within the requirements of applicable laws of the United States of America or local jurisdictions because of physical degradation of the asset or component.

Operationally ready Status
Refers to an organizational recognition of the condition of an asset or component and exists when the determination is made that an asset meets the criteria for an operationally ready condition.

Preventive Maintenance (PM)
The systematic care, servicing, and inspection of assets, facilities, equipment, and components for the purpose of detecting and correcting emergent failures and accomplishing minor maintenance. The frequency of preventive maintenance is generally less than one year.

System
A USACE asset that is part of a facility and that consists of regularly interacting or interdependent groups of components that perform defined functions. (A system can consist of other systems, which are typically referred to as sub-systems).