

Headquarters
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# Army Regulation 11-42

Effective 7 February 2022

#### **Army Programs**

# **Army Corrosion Prevention and Control Program**

By Order of the Secretary of the Army:

JAMES C. MCCONVILLE General, United States Army Chief of Staff Official:

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History. This publication is a new Department of the Army regulation.

**Authorities.** This regulation implements Public Law (PL) 110–417, Section 903; PL 113–66, Section 334; PL 113–66, Section 1084(b)(1); PL 114–328, Section 954(c); PL 115–91, Section 924 and Department of Defense Instruction (DODI) 5000.67.

**Applicability.** This regulation applies to the Regular Army, the Army National Guard/Army National Guard of the United States, and the U.S. Army Reserve.

**Proponent and exception authority.** The proponent of this regulation is the Assistant Secretary of the Army (Acquisition, Logistics and Technology), in fulfilling the responsibilities under Public Law 110–417, Section 903. The proponent has the authority to approve exceptions or waivers to this regulation that are consistent with controlling law and regulations. The proponent may delegate this approval authority, in writing, to a division chief within the proponent agency or its direct reporting unit or field operating agency, in the grade of colonel or the Civilian equivalent. Activities may request a waiver to this regulation by providing justification that includes a full analysis of the expected benefits and must include formal review by the activity's senior legal officer. All waiver requests must be endorsed by the commander or senior leader of the requesting activity and forwarded through higher headquarters to the policy proponent. Refer to Army Regulation 25–30 for specific requirements.

Army internal control process. This regulation contains internal control provisions in accordance with AR 11–2 and identifies key internal controls that must be evaluated (see appendix B).

Suggested improvements. Users are invited to send in comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to the Assistant Secretary of the Army (Acquisition, Logistics and Technology), Army Pentagon Washington, DC 20310.

**Distribution.** This regulation is available in electronic media only and is intended for the Regular Army, the Army National Guard/Army National Guard of the United States, and the U.S. Army Reserve.

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# Chapter 1 General

#### Section I

#### Introduction

#### 1-1. Purpose

This regulation establishes responsibilities and prescribes the Department of the Army (DA) policy implementing the Army Corrosion Prevention and Control (CPC) program. The Army CPC program is an Armywide program encompassing all military equipment and infrastructure owned, operated, leased, and/or supported by the Army.

# 1-2. References, forms, and explanation of abbreviations

See appendix A. The abbreviations used in this electronic publication are defined when you hover over them. Acronyms are listed in the abbreviations, brevity codes, and acronyms database located at https://armypubs.army.mil/abca/.

# 1-3. Associated publications

See DA Pam 11-42.

#### 1-4. Responsibilities

See section II of chapter 1 for responsibilities.

### 1-5. Records management (recordkeeping) requirements

The records management requirement for all record numbers, associated forms, and reports required by this regulation are addressed in the Records Retention Schedule-Army (RRS-A). Detailed information for all related record numbers, forms, and reports are located in the Army Records Information Management System (ARIMS)/RRS-A at https://www.arims.army.mil. If any record numbers, forms, and reports are not current, addressed, and/or published correctly in ARIMS/RRS-A, see DA Pam 25-403 for guidance.

# 1-6. Statutory authority

Public Law (PL) 110–417, Section 903 requires the Assistant Secretary of the Army (Acquisition, Logistics and Technology) (ASA (ALT)) to designate an Army Corrosion Control and Prevention Executive (CCPE). The CCPE duties and responsibilities are further amended by the following three PLs:

- a. PL 113-66, Section 334 and Section 1084(b)(1).
- b. PL 114-328, Section 954(c).
- c. PL 115-91, Section 924.

#### 1-7. Governance

It is an Armywide responsibility to reduce corrosion and its impacts to capabilities, readiness, and sustainment burden. This regulation governs all phases of materiel management and infrastructure lifecycle to include development of capabilities required, research, development, test and evaluation (RDT&E), introduction of materiel, infrastructure, real property, temporary facilities, and parts into the supply chain. This also entails storage and sustainment of equipment and infrastructure through their retirement and disposition. The Army CPC program is designed to maintain capabilities, increase safety and reduce sustainment costs of equipment and infrastructure. Examples of military equipment include, but are not limited to, weapons systems and platforms, munitions, vehicles, support equipment, testing and training equipment and devices. Examples of infrastructure include, but are not limited to, real property, bridges, buildings including installed equipment, utilities systems, accountable property, and test and sustainment facilities.

#### Section II

#### Responsibilities

CPC is an Armywide responsibility from the lowest echelons to the highest; from the equipment operator or maintainer to the commander; and from the designer and logistician to the acquisition or procurement manager. It is an Armywide responsibility to reduce corrosion and its impacts to capabilities, readiness, and sustainment burden.

#### 1-8. Secretary of the Army

The SECARMY, through the Deputy Under Secretary of the Army for Test and Evaluation (DUSA-TE), will—

- a. Ensure that the Army resources required accelerated corrosion testing capabilities within the Army-T&E program as part of an effective Army CPC program.
- b. In coordination with the Army CCPE, oversee the development and implementation of policies (for example, in Army Regulation (AR) 73–1) and guidance on the use of accelerated corrosion.
- c. Ensure that, when Headquarters, Department of the Army (HQDA) is the approval authority, each test and evaluation master plan (TEMP) (or equivalent acquisition planning documents that address testing considerations) complies with the policy and guidance on the use of accelerated corrosion testing.
- d. Appoint a senior officer, warrant officer, senior enlisted Soldier or Civilian equivalent (for example, general schedule (GS)–13/14/15) to act as the primary point of contact (POC) for their organization to the Army CCPE within 60 business days of promulgation of this regulation or of a vacancy of the position. Report the name and contact information to the Army CCPE within 15 business days of the appointment.
  - e. Ensure that the primary CPC POC—
- (1) Has appropriate background, duties, and responsibilities to carry out this function and the ability to collect and report annually on the required information in accordance *paragraph 2–3d*.
- (2) Provides timely, complete, and accurate information in response to all information requests distributed by the CCPE, including but not limited to annual reporting requirements in accordance with paragraph 3–2, internal Army leadership briefings, and inquiries from oversight bodies such as the Government Accountability Office (GAO) and the Army Audit Agency (AAA).

# 1–9. Assistant Secretary of the Army (Acquisition, Logistics and Technology) The ASA (ALT) will—

- a. Ensure that CPC is incorporated into all relevant policies and programs for Army acquisition, logistics, and technology initiatives under its purview.
- b. Plan, program, budget, and execute an RDT&E program to investigate, demonstrate, and transition new materials and technologies for CPC throughout the life cycle of Army equipment and infrastructure, in coordination with the Commanding General (CG), U.S. Army Futures Command (AFC) and the Chief of Engineers (CoE), respectively.
- c. Ensure that, when serving as the HQDA approval authority for a system engineering plan (SEP), each SEP (or equivalent acquisition planning documents that address engineering considerations) reflects a risk-based approach to identify critical components or aspects of the system that can be threatened by corrosion, as well as lessons learned from similar systems.
- d. Ensure that, as the HQDA life-cycle sustainment plan (LCSP) approval authority, each LCSP (or equivalent acquisition planning documents that address sustainment considerations) reflects projected considerations from the risk-based approach used in the SEP, as well as lessons learned from operational sustainment reviews (OSRs) of fielded systems.
- e. Evaluate effects of corrosion during OSRs to determine the extent of any additional maintenance needed to address unplanned corrosion preventive and corrective actions, and develop lessons learned and recommendations. Provide an annual report to the Army CCPE no later than 30 September of each year on CPC lessons learned from OSRs and plans to address corrective actions.
- f. Maintain and adequately resource the office of the Army CCPE to carry out the Title 10, United States Code (10 USC) statutory requirements and the responsibilities assigned in this regulation.
- g. Assign the Deputy Assistant Secretary of the Army (Plans, Programs, and Resources) (DASA (PP&R)) to—
- (1) Ensure that CPC considerations are incorporated into the planning, programming, budgeting, and execution (PPBE) of Equipping program evaluation group (PEG) and Sustaining PEG functions.

- (2) Provide a summary of CPC requirements in the Equipping PEG and Sustaining PEG to the Army CCPE no later than 30 September of each year. This summary will identify how CPC requirements are articulated in planning and programming guidance as well as the funding levels requested, validated, and resourced to execute CPC activities over the current year, budget year, and program objective memorandum (POM) years.
- h. Assign the DASA Acquisition Policy and Logistics (APL) to chair an executive steering group to address unresolved CPC issues as identified by the Army CCPE.
- *i.* Designate a DA Civilian to serve as the Army CCPE, responsible for coordinating DA-level CPC activities throughout the Army. The CCPE will—
  - (1) Manage and oversee the central Army CPC office within HQDA.
- (2) Ensure that CPC is incorporated into DA policy and guidance for all appropriate functional areas throughout the equipment and infrastructure lifecycles, to include system acquisition and production and design and maintenance.
- (3) Initiate and sustain an effective Army CPC program, evaluate its effectiveness, and ensure that the necessary resources are reflected in the Army PPBE system.
- (4) Develop and implement an Armywide system to assign, track, and report CPC program actions and activities.
- (5) Serve as the principal POC for the DA to the Director, Corrosion Policy and Oversight within the Office of the Secretary of Defense (OSD).
- (6) Prepare an annual report, to send to the Director, Corrosion Policy and Oversight no later than 31 December of each year in accordance with paragraph 3–2.
  - j. Ensure that program executive officers (PEOs) and Joint PEOs, as applicable—
- (1) Oversee the program, project, and product managers (PMs) and material developers (MATDEVs) in performing their lifecycle CPC planning requirements in accordance with this regulation, DoDI 5000.85, DoDI 5000.88, DoDI 5000.89, AR 70–1, AR 700–127 and DA Pam 700–127. Such oversight includes but is not limited to CPC planning requirements in the SEP, TEMP, and LCSP (or equivalent acquisition planning documents that address engineering, sustainment, and testing considerations). PM/MATDEV risk-based approaches to identify critical components or aspects of systems that, when degraded by corrosion, cause loss of capability or operability, decreased safety, or increased resources for maintenance; and their use of modeling, simulation, accelerated corrosion testing, and risk management to affect design changes as early as possible in the acquisition process.
- (2) Develop implementing guidance specific to the PMs and MATDEVs in their commodity area(s) on how to perform efficient and effective lifecycle CPC planning in accordance with DoDI 5000.85, DoDI 5000.88, DoDI 5000.89, AR 70–1, AR 700–127 and DA Pam 700–127. Review the guidance annually and provide copies to the Army CCPE within 30 business days of initial publication and revision.
- (3) Evaluate the adequacy of PM and MATDEV CPC planning against the implementing guidance specific to their commodity area and provide a summary to the Army CCPE no later than 30 September of each year.
- (4) Ensure that all staff have an appropriate level of awareness and training on the CPC requirements and methods applicable for their duties and responsibilities.
- (5) Provide CPC requirements included in the SEP, TEMP, and LCSP (or equivalent acquisition planning documents that address engineering, sustainment, and testing considerations) to the Army CCPE for awareness prior to initial publication and revision.
  - (6) Plan, program, and budget resources to comply with the requirements of this regulation.
- (7) Appoint a senior officer, warrant officer, senior enlisted Soldier, or Civilian equivalent (for example, GS-13/14/15) to act as the primary POC for their organization to the Army CCPE within 60 business days of promulgation of this regulation or of a vacancy of the position. Report the name and contact information to the Army CCPE within 15 business days of the appointment.
  - (8) Ensure that the primary CPC POC-
- (a) Has appropriate background, duties, and responsibilities to carry out this function and the ability to collect and report annually on the required information in accordance with paragraph 2–3d.
- (b) Provides timely, complete, and accurate information in response to all information requests distributed by the CCPE. This includes but is not limited to annual reporting requirements in paragraph 3–2, internal Army leadership briefings, and inquiries from oversight bodies such as GAO and AAA.

#### 1-10. Assistant Secretary of the Army (Civil Works)

The ASA (CW) will-

- a. Appoint a senior officer, warrant officer, senior enlisted Soldier or Civilian equivalent (for example, GS–13/14/15) to act as the primary CPC POC for their organization to the Army CCPE within 60 business days of promulgation of this regulation or of a vacancy of the position. Report the name and contact information to the Army CCPE within 15 business days of the appointment.
  - b. Ensure that the primary CPC POC-
- (1) Has appropriate background, duties, and responsibilities to carry out this function and the ability to collect and report annually on the required information in accordance with *paragraph 2–3d*.
- (2) Provides timely, complete, and accurate information in response to all information requests distributed by the CCPE, including but not limited to annual reporting requirements in accordance with paragraph 3–2, internal Army leadership briefings, and inquiries from oversight bodies such as GAO and AAA.

# 1–11. Assistant Secretary of the Army (Financial Management and Comptroller) The ASA (FM&C) will—

- a. Develop and implement financial management policies and procedures that consider environmental severity classification when allocating resources for acquisition and sustainment of systems, and procurement and maintenance of infrastructure.
- b. Appoint a senior officer, warrant officer, senior enlisted Soldier or Civilian equivalent (for example, GS-13/14/15) to act as the primary CPC POC for their organization to the Army CCPE within 60 business days of promulgation of this regulation or of a vacancy of the position. Report the name and contact information to the Army CCPE within 15 business days of the appointment.
  - c. Ensure that the primary CPC POC—
- (1) Has appropriate background, duties, and responsibilities to carry out this function and the ability to collect and report annually on the required information in accordance with paragraph 2–3d.
- (2) Provides timely, complete, and accurate information in response to all information requests distributed by the CCPE, including but not limited to annual reporting requirements in accordance with paragraph 3–2, internal Army leadership briefings, and inquiries from oversight bodies such as GAO and AAA.

# 1–12. Assistant Secretary of the Army (Installations, Energy and Environment) The ASA (IE&E) will—

- a. Develop and carry out a process to identify the annual resources needed to implement an effective Armywide CPC program specifically for infrastructure.
- b. Ensure that CPC considerations are incorporated into the PPBE of Installations PEG functions. Provide a summary of CPC requirements in the Installations PEG to the Army CCPE no later than 30 September of each year. This summary will identify how CPC requirements are articulated in planning and programming guidance as well as the funding levels requested, validated, and resourced to execute CPC activities over the current year, budget year, and POM years.
- c. In coordination with the Deputy Chief of Staff, G–9 (DCS, G–9), the CG, U.S. Army Materiel Command (AMC) and the CoE, ensure that Sustainment Management System (SMS) policies and procedures are developed and implemented to track and report on corrosion of infrastructure.
- d. In coordination with the DCS, G–9 and the CoE, ensure that CPC is adequately incorporated into DA policy and guidance for infrastructure, such as in, but not limited to, AR 420–1, unified facilities criteria (UFC), unified facilities guide specifications (UFGS), the Whole Building Design Guide (WBDG) and engineering manuals (EMs).
- e. Identify a DA Civilian to serve as the Army's Assistant CCPE, who is responsible for coordinating DA-level CPC infrastructure activities throughout the Army. The Assistant CCPE will—
- (1) Ensure that CPC is incorporated into DA policy and guidance for all appropriate functional areas throughout the infrastructure lifecycle, including the following:
- (a) Construction, sustainment, restoration, modernization, repair, and operation of infrastructure whose primary mission supports CPC for military equipment. This includes but is not limited to aircraft corrosion control hangars, paint booths, blast booths, wash racks, controlled humidity warehouses, other spare part storage facilities, and some test facilities.
  - (b) Construction, sustainment, restoration, modernization, or repair of all other infrastructure.
  - (c) RDT&E programs and activities seeking to improve infrastructure CPC capabilities.
  - (d) Infrastructure standardization programs, including international standardized agreements.

- (2) Support the Army CPC survey team process in accordance with paragraph 3-4.
- (3) Initiate and sustain an effective Army infrastructure CPC program as part of the overall Army CPC program, evaluate its effectiveness and ensure that the necessary resources are reflected in the Army PPBE system.
- (4) Develop metrics to evaluate the effectiveness of the Army infrastructure CPC program, and provide annual evaluations of the program to the Army CCPE along with any planned actions needed to improve its effectiveness.
  - (5) Serve as the principal POC for infrastructure to the Army CCPE.
- (6) Prepare and send information required for inclusion in the annual report to the Army CCPE no later than September 30th each year, in accordance with paragraph 3–2.

# 1-13. Assistant Secretary of the Army (Manpower and Reserve Affairs)

The ASA (M&RA) will--

- a. Ensure that CPC considerations are incorporated into the PPBE of Training (TT) PEG functions. Provide a summary of CPC requirements in the Training PEG to the Army CCPE no later than 30 September of each year. This summary will identify how CPC requirements are articulated in planning and programming guidance as well as the funding levels requested, validated, and resourced to execute CPC activities over the current year, budget year, and POM years.
- b. Appoint a senior officer, warrant officer, senior enlisted Soldier or Civilian equivalent (for example, GS–13/14/15) to act as the primary CPC POC for their organization to the Army CCPE within 60 days of promulgation of this regulation or of a vacancy of the position. Report the name and contact information to the Army CCPE within 15 days of the appointment.
  - c. Ensure that the primary CPC POC-
- (1) Has appropriate background, duties, and responsibilities to carry out this function and the ability to collect and report annually on the required information in accordance with *paragraph 2–3d*.
- (2) Provides timely, complete, and accurate information in response to all information requests distributed by the CCPE, including but not limited to annual reporting requirements in paragraph 3–2, internal Army leadership briefings, and inquiries from oversight bodies such as GAO and AAA.

#### 1-14. Chief, National Guard Bureau

The Chief, National Guard Bureau, will-

- a. Develop local policies and procedures to establish, manage, and execute a command-level CPC program in accordance with paragraph 3–3.
  - b. Ensure the additional responsibilities identified in paragraph 1–42 are followed within the ARNG.

### 1-15. Deputy Chief of Staff, G-3/5/7

The DCS, G-3/5/7 will-

- a. Conduct a review of the training resources model to ensure that units are properly funded to prevent and control corrosion at the lowest level based on environmental severity of each location.
- b. Support CPC efforts throughout the materiel life cycle, to include supporting the Training PEG to plan, program, and budget resources that effectively enable Soldiers to implement the Army CPC program for fielded systems.
- c. Appoint a senior officer, warrant officer, senior enlisted Soldier or Civilian equivalent (for example, GS–13/14/15) to act as the primary CPC POC for their organization to the Army CCPE within 60 business days of promulgation of this regulation or of a vacancy of the position. Report the name and contact information to the Army CCPE within 15 business days of the appointment.
  - d. Ensure that the primary CPC POC-
- (1) Has appropriate background, duties, and responsibilities to carry out this function and the ability to collect and report annually on the required information in *paragraph 2–3d*.
- (2) Provides timely, complete, and accurate information in response to all information requests distributed by the CCPE, including but not limited to annual reporting requirements in accordance with paragraph 3–2, internal Army leadership briefings, and inquiries from oversight bodies such as GAO and AAA.

#### 1-16. Deputy Chief of Staff, G-4

The DCS, G-4 will-

- a. Advise the Army CCPE in the area of corrosion and corrosion-related issues pertaining to the functional area of logistics.
- b. Support CPC efforts throughout the materiel life cycle, to include supporting the Sustaining PEG to plan, program, and budget resources that effectively implement the Army CPC program for sustaining fielded systems.
- c. Review CPC survey reports from Army commands (ACOMs), Army service component commands (ASCCs), direct reporting units (DRUs), Army National Guard (ARNG), and U.S. Army Reserve (USAR).
- d. Ensure that CPC requirements are reflected in DA policies for maintenance, supply, and transportation of equipment for all components of the Army.
- e. Provide advice on the development of policy, implementing guidance and metrics to ensure that CPC is appropriately addressed in the Army Command Supply Discipline program.
- f. Provide oversight to ensure that ACOMs, ASCCs, DRUs, ARNG, and USAR implement CPC as part of their Command Maintenance Discipline Programs (CMDPs) in accordance with AR 750–1 and the Field Level Requirements Checklist in DA Pam 750–1.
- g. Appoint a senior officer, warrant officer, senior enlisted Soldier or Civilian equivalent (for example, GS–13/14/15) to act as the primary CPC POC for their organization to the Army CCPE within 60 business days of promulgation of this regulation or of a vacancy of the position. Report the name and contact information to the Army CCPE within 15 business days of the appointment.
  - h. Ensure that the primary CPC POC—
- (1) Has appropriate background, duties, and responsibilities to carry out this function and the ability to collect and report annually on the required information in accordance with *paragraph 2–3d*.
- (2) Provides timely, complete, and accurate information in response to all information requests distributed by the CCPE, including but not limited to annual reporting requirements in paragraph 3–2, internal Army leadership briefings, and inquiries from oversight bodies such as GAO and AAA.

# 1-17. Deputy Chief of Staff, G-8

The DCS, G-8 will-

- a. Assist the ASA (ALT), ASA (IE&E), and ASA (M&RA) to develop planning and programming guidance to adequately include CPC requirements in their respective PEGs.
  - b. In coordination with the CG, AFC-
- (1) Ensure CPC is adequately addressed in the generation of capabilities documents for weapon systems and associated materiel.
- (2) Develop implementing guidance for PEOs, PMs, and MATDEVs to create written, measurable, performance-based CPC requirements in the process of translating capability documents into system/performance requirements and specifications in accordance with DoDI 5000.85 and AR 70–1.
- c. Support CPC efforts throughout the materiel life cycle, to include supporting the Equipping PEG to plan, program, and budget resources that effectively implement the Army CPC program during RDT&E and acquisition.
- d. Appoint a senior officer, warrant officer, senior enlisted Soldier or Civilian equivalent (for example, GS–13/14/15) to act as the primary CPC POC for their organization to the Army CCPE within 60 business days of promulgation of this regulation or of a vacancy of the position. Report the name and contact information to the Army CCPE within 15 business days of the appointment.
  - e. Ensure that the primary CPC POC-
- (1) Has appropriate background, duties, and responsibilities to carry out this function and the ability to collect and report annually on the required information in accordance with paragraph 2–3*d*.
- (2) Provides timely, complete, and accurate information in response to all information requests distributed by the CCPE, including but not limited to annual reporting requirements in paragraph 3–2, internal Army leadership briefings, and inquiries from oversight bodies such as GAO and AAA.

# 1-18. Deputy Chief of Staff, G-9

The DCS, G-9 will-

- a. In coordination with the ASA (IE&E) and the CoE, ensure that CPC is incorporated into DA guidance for infrastructure such as in, but not limited to, AR 420–1.
- b. Review the guidance annually and provide copies to the Army CCPE within 30 business days of initial publication and revision.

- c. In coordination with the ASA (IE&E), CG, AMC, and the CoE, ensure that SMS policies and procedures are developed and implemented to track and report on corrosion of infrastructure.
- d. Support CPC efforts throughout the infrastructure life cycle, to include supporting the Installations PEG to plan, program, and budget resources that effectively implement the Army CPC program for infrastructure.
- e. Appoint a senior officer, warrant officer, senior enlisted Soldier or Civilian equivalent (for example, GS–13/14/15) to act as the primary CPC POC for their organization to the Army CCPE within 60 business days of promulgation of this regulation or of a vacancy of the position. Report the name and contact information to the Army CCPE within 15 business days of the appointment.
  - f. Ensure that the primary CPC POC-
- (1) Has appropriate background, duties, and responsibilities to carry out this function and the ability to collect and report annually on the required information in accordance with *paragraph 2–3d*.
- (2) Provides timely, complete, and accurate information in response to all information requests distributed by the CCPE, including but not limited to annual reporting requirements in paragraph 3–2, internal Army leadership briefings, and inquiries from oversight bodies such as GAO and AAA.

# 1-19. Chief, Army Reserve

The CAR will--

- a. Develop local policies and procedures to establish, manage, and execute a command-level CPC program in accordance with paragraph 3–3.
  - b. Follow the additional responsibilities identified in paragraph 1-42.

# 1-20. Chief of Engineers

The CoE will-

- a. Develop local policies and procedures to establish, manage, and execute a command-level CPC program in accordance with paragraph 3–3.
- b. In coordination with the CG, AMC, develop implementing guidance for facility planners to create specific measurable, performance-based CPC requirements in the process of tailoring UFGS, UFCs, WBDG, or similar documents into a facility design, consistent with facility system safety requirements in accordance with AR 385–10 and DA Pam 385–16.
- c. In coordination with the ASA (IE&E), DCS, G-9, The Surgeon General (TSG), other DoD services and involved agencies, ensure environment, safety, and occupational health (ESOH) requirements are included in the process of tailoring UFGS, UFCs, or other similar documents specific to corrosion control activities, such as coating removal, abrasive blasting, air-arc gouging, welding, sanding, grinding, applying coatings, cleanup, and disposal.
- d. In coordination with the ASA (IE&E), DCS, G-9 and CG, AMC, ensure that SMS policies and procedures are developed and implemented to track and report on corrosion of Army infrastructure.
- e. In coordination with the Army CCPE, advise on the development of policy and guidance for maintaining testing capability on the use of accelerated corrosion testing of materials and technology for Army infrastructure as part of an effective Army CPC program.
- f. In addition to responsibilities in accordance with AR 73–1 and AR 5–22 as the force modernization proponent, tester, and system evaluator for DCS, G–3/5/7 assigned systems (civil works and military construction), serve as the proponent for corrosion testing of infrastructure and associated technology, particularly accelerated corrosion testing.
- g. In coordination with ASA (ALT), plan, program, budget, and execute an Army infrastructure CPC RDT&E program encompassing science and technology initiatives, technology insertion opportunities on existing infrastructure, and demonstration/validation efforts coordinated with installation and garrison commanders. Ensure that this RDT&E program includes efforts to develop and maintain accelerated corrosion testing capabilities.
- *h.* Ensure that each location to which the Army stations or deploys be classified by its environmental severity classification in accordance with UFC 1–200–01.
- *i.* Develop UFCs for corrosion control facilities based on the requirements from PEOs, PMs, MATDEVs, the chemical agent resistant coating (CARC) commodity manager and the Army CCPE.
  - j. Follow the additional responsibilities identified in paragraph 1–42.
- k. Ensure that the Director, Engineer Research and Development Center (ERDC) and directors, ERDC laboratories each appoint a senior officer, warrant officer, senior enlisted Soldier or Civilian equivalent (for

example, GS–13/14/15) to act as the primary CPC POC for their organization to the Army CCPE within 60 business days of promulgation of this regulation or of a vacancy of the position. Report the names and contact information to the Army CCPE within 15 business days of the appointment.

- I. Ensure that the primary CPC POC-
- (1) Has appropriate background, duties, and responsibilities to carry out this function and the ability to collect and report annually on the required information in accordance with paragraph 2–3d.
- (2) Provides timely, complete, and accurate information in response to all information requests distributed by the CCPE, including but not limited to annual reporting requirements in accordance with paragraph 3–2, internal Army leadership briefings, and inquiries from oversight bodies such as GAO and AAA.

#### 1-21. The Surgeon General

TSG will--

- a. Ensure that CPC is a consideration in the following:
- (1) Drafting of medical materiel requirements documents.
- (2) Direction, evaluation, and coordination of medical materiel.
- (3) Medical materiel maintenance programs.
- (4) Medical materiel life-cycle management.
- (5) Procurement, operation, and evaluation of all food service materiel, food, and potable water contact surfaces.
- (6) Planning, programming, and budgeting resources for CPC in ESOH evaluations that support sustainment of fielded medical systems throughout the sustainment readiness model.
- b. Provide guidance to ensure ESOH standards and regulations for human health and environmental protection are observed during CPC practices. This guidance is especially important since volatile organic compounds, heavy metals, and other toxic and hazardous materials are commonly used in CPC.
- c. Ensure that CPC technologies recommended by the Army CCPE for use in new designs or sustainment procedures have met applicable ESOH requirements to ensure human health and environmental protection.
  - d. Follow the additional responsibilities assigned in AR 750–59.
- e. Appoint a senior officer, warrant officer, senior enlisted Soldier or Civilian equivalent (for example, GS-13/14/15) to act as the primary CPC POC for their organization to the Army CCPE within 60 business days of promulgation of this regulation or of a vacancy of the position. Report the name and contact information to the Army CCPE within 15 business days of the appointment.
  - f. Ensure that the primary CPC POC-
- (1) Has appropriate background, duties, and responsibilities to carry out this function and the ability to collect and report annually on the required information in accordance with paragraph 2–3d.
- (2) Provides timely, complete, and accurate information in response to all information requests distributed by the CCPE, including but not limited to annual reporting requirements in accordance with paragraph 3–2, internal Army leadership briefings, and inquiries from oversight bodies such as GAO and AAA.

# 1-22. Commanding General, U.S. Army Forces Command

The CG, FORSCOM will—

- a. Develop local policies and procedures that establish, manage, and execute a command-level CPC program in accordance with paragraph 3–3.
  - b. Follow the additional responsibilities identified in paragraph 1–42.

# 1–23. Commanding General, U.S. Army Training and Doctrine Command The CG, TRADOC will—

- a. Develop local policies and procedures that establish, manage, and execute a command-level CPC program in accordance with paragraph 3–3.
  - b. Follow the additional responsibilities assigned in AR 750-59.
  - c. Follow the additional responsibilities identified in paragraph 1-42.
- d. Appoint a senior officer, warrant officer, senior enlisted Soldier or Civilian equivalent (for example, GS–13/14/15) to act as the primary trainer CPC POC to the Army CCPE within 60 business days of promulgation of this regulation or of a vacancy of the position. Report the name and contact information to the Army CCPE within 15 business days of the appointment.
  - e. Ensure that the primary trainer CPC POC-

- (1) Includes CPC considerations in all levels of training (basic, follow-on, and advanced individual training) for appropriate military and Civilian personnel, including but not limited to storage, maintenance and supply specialists, maintenance support and packaging specialists, and operation specialists.
  - (2) Includes at least the following in CPC training:
  - (a) Identifying all forms of corrosion and their causes.
  - (b) Corrosion detection and reporting procedures.
  - (c) Corrective and preventive maintenance actions for operators and crew when addressing corrosion.
  - (d) Environmental control for hazardous materials used in and resulting from CPC processes.
  - (e) Safety considerations in use of chemicals.
- (f) Occupational health and industrial hygiene considerations to protect workers required to use hazardous materials in CPC processes.
  - (g) Understanding safety data sheets and personal protective equipment requirements.
  - (3) Provides curriculum support and disseminates training materials to all participating commands.
- (4) Ensures course curricula and training materials reflect current CPC information available from the Army CCPE, AMC life-cycle management commands (LCMCs) and AFC Combat Capabilities Development Command (DEVCOM).
- (5) Oversees the integration of CPC training and education into appropriate curriculum for equipment operators and for maintenance and supply personnel.

# 1-24. Commanding General, U.S. Army Materiel Command

The CG, AMC will—

- a. Develop local policies and procedures that establish, manage, and execute a command-level CPC program in accordance with paragraph 3–3.
- b. Ensure that maintenance facilities required to perform CPC activities (such as painting preparation and storage areas, paint booths, wash racks, and so forth) are sufficient in size, quantity, and capability to meet the needs of the equipment sustained at each installation. Ensure that the status of each of these facilities is tracked and reported at least annually to the Army CCPE no later than 30 September of each year.
  - c. In coordination with the CoE-
- (1) Ensure that CPC is incorporated into DA policy and guidance for infrastructure such as in, but not limited to, UFCs and UFGS.
- (2) Ensure that SMS policies and procedures are developed and implemented to track and report on corrosion of infrastructure.
- (3) Develop implementing guidance for facility planners to create specific measurable, performance-based CPC requirements in the process of tailoring UFGS, UFCs, WBDG, or similar documents into a facility design.
- d. In coordination with the ASA (ALT), ensure CPC is addressed in the supportability analysis as it relates to integrated product support in the materiel acquisition process.
- e. Coordinate, publish, and distribute to the affected local and parent organizations and commands, a list of commands, organizations, and/or maintenance activities scheduled for a CPC survey in the coming fiscal year.
- f. Ensure that corrosion is addressed through the National Maintenance Program, the Active Army Item Depot Maintenance Program, Theater Reserve, War Reserve, and pre-positioned stocks, to include the development of budget requests in support of program requirements.
  - g. Follow the additional responsibilities identified in AR 750-59.
  - h. Follow the additional responsibilities identified in paragraph 1–42.
  - i. Ensure that CGs, LCMCs, and the Commander, U.S. Army Medical Logistics Command will—
- (1) Appoint a senior officer, warrant officer, senior enlisted Soldier or Civilian equivalent (for example, GS-13/14/15) to act as the primary CPC POC for their organization to the Army CCPE within 60 business days of promulgation of this regulation or of a vacancy of the position. Report the name and contact information to the Army CCPE within 15 business days of the appointment.
  - (2) Ensure that the primary CPC POC-
- (a) Has appropriate background, duties, and responsibilities to carry out this function and the ability to collect and report annually on the required information in accordance with *paragraph 2–3d*.

- (b) Provides timely, complete, and accurate information in response to all information requests distributed by the CCPE, including but not limited to annual reporting requirements in accordance paragraph 3–2, internal Army leadership briefings, and inquiries from oversight bodies such as the GAO and AAA.
  - (3) Consider CPC in the following areas:
- (a) Collection, distribution, and feedback of system test and equipment maintenance information relating to corrosion.
- (b) Army materiel acquisition, recapitalization, remanufacture, overhaul, and/or product improvement, including the evaluation of each proposal for a new system, equipment, or component.
  - (c) Evaluation of non-developmental items, equipment, and systems.
  - (d) Care of supplies in storage, including preservation, packaging, and exercising requirements.
  - (4) Provide information to and support the PMs and MATDEVs.
- (5) Develop and make available to TRADOC commodity-specific corrosion information, lessons learned, and so forth, for use in developing training for Army personnel involved in material maintenance.
- (6) Assist the Army CCPE, PMs, and MATDEVs to ensure adequate CPC planning in SEPs, TEMPs, and LCSPs (or equivalent acquisition planning documents that address engineering, sustainment, and testing considerations).
  - j. Additionally, ensure that CGs, LCMCs will-
- (1) Establish a program office to administer their LCMC CPC programs as part of the Army CPC program.
- (2) Support and assist PEOs, PMs, MATDEVs, and depots to establish and implement their own individual CPC programs.
- (3) Compile and submit an annual corrosion survey summary through CG, AMC to the CCPE, copying DCS, G–4, Field Maintenance Division. The annual corrosion survey summaries, at a minimum, will include the following:
  - (a) Identification of surveyed environmental severity classification zones.
  - (b) Corrosivity issues associated with surveyed zones.
  - (c) Action conducted on site by survey teams.
  - (d) Long-term recommendations for corrosion prevention and mitigation.
- (4) Identify and evaluate corrosion considerations to reduce, control, or mitigate corrosion during sustainment and provide feedback to PEOs on adequacy of CPC planning for sustainment.
- (5) Review LCSPs for CPC planning and corrosion control management and provide feedback to PEOs on adequacy of CPC planning in LCSPs.
- (6) Ensure that logistics assistance representatives (LARs) assist units to identify, report, and resolve corrosion issues and concerns.

# 1-25. Commanding General, U.S. Army Futures Command

The CG, AFC will—

- a. Develop local policies and procedures that establish, manage, and execute a command-level CPC program in accordance with paragraph 3–3.
  - b. In coordination with the DCS, G-8—
- (1) Ensure CPC is adequately addressed in the generation of capabilities documents for weapon systems and associated materiel.
- (2) Develop implementing guidance for PEOs, PMs, and MATDEVs to create written, measurable, performance-based CPC requirements in the process of translating capability documents into system or performance requirements and specifications in accordance with DoDI 5000.85 and AR 70–1. Review the guidance annually and provide copies to the Army CCPE within 30 business days of initial publication and revision.
- c. In coordination with the ASA (ALT), plan, program, budget, and execute an RDT&E program to investigate, demonstrate, and transition new materials and technologies for CPC for Army equipment. Ensure that this RDT&E program includes efforts to develop and maintain accelerated corrosion testing capabilities.
- d. Ensure that the products resulting from the RDT&E program and all recommendations for transitioning them to PMs, MATDEVs, commanders, or other users are reported at least annually to the Army CCPE no later than 30 September of each year.

- e. Ensure that CPC is adequately addressed by the cross-functional teams as early as possible in the combat system development and prototyping processes and that lessons learned are provided to PEOs, PMs, and MATDEVs for refinement of their CPC planning and execution.
- f. Ensure that capability developers include CPC considerations in the initial development of documented LCSPs in accordance with AR 700–127 and DA Pam 700–127.
- g. Ensure that the CG, DEVCOM; the Director, Futures and Concepts Center; the directors, cross-functional teams; and the directors, DEVCOM centers and laboratories each appoint a senior officer, warrant officer, senior enlisted Soldier or Civilian equivalent (for example, GS–13/14/15) to act as the primary CPC POC for their organization to the Army CCPE. This will be done within 60 business days of promulgation of this regulation, or of a vacancy of the position. The names and contact information must be reported to the Army CCPE within 15 business days of the appointment.
  - h. Ensure that the primary CPC POC-
- (1) Has appropriate background, duties, and responsibilities to carry out this function and the ability to collect and report annually on the required information in accordance *paragraph 2–3d*.
- (2) Provides timely, complete, and accurate information in response to all information requests distributed by the CCPE, including but not limited to annual reporting requirements in accordance with paragraph 3–2, internal Army leadership briefings, and inquiries from oversight bodies such as GAO and AAA.
- *i.* Ensure that DEVCOM CPC subject matter experts help the TRADOC POC with the development of CPC training curricula.
- *j.* Support CG, AMC with CPC aspects of sustaining engineering functions, to include production and manufacturing engineering capabilities, technical project leadership, acquisition engineering capabilities, quality assurance, continuous improvement, test and evaluation expertise, and CPC survey support.
- *k.* Support and assist the PEOs, PMs, and MATDEVs through DEVCOM centers and laboratories to establish and implement their CPC programs using resources and technical expertise, including corrosion prevention in sustainment planning for Army materiel.
  - I. Ensure CPC is adequately addressed in the following areas:
- (1) Testing and evaluation equipment, processes, and techniques. This specifically includes nondestructive testing and evaluation of commercial materials, equipment, or processes.
  - (2) Evaluation of non-developmental items, equipment, and systems.
  - (3) RDT&E programs and activities, including but not limited to manufacturing technology.
  - (4) Equipment standardization programs, including international standardized agreements.
  - (5) Logistics research and development initiatives.
- (6) Collection, distribution, and feedback of system test and equipment maintenance information relating to corrosion.
  - m. Follow the additional responsibilities identified in paragraph 1–42.

#### 1-26. Commanding General, U.S. Army Pacific

The CG, USARPAC will-

- a. Develop local policies and procedures to establish, manage, and execute a command-level CPC program in accordance with paragraph 3–3.
  - b. Follow the additional responsibilities identified in paragraph 1-42.

# 1-27. Commanding General, U.S. Army Europe and Africa

The CG, USAREUR-AF will-

- a. Develop local policies and procedures to establish, manage, and execute a command-level CPC program in accordance with paragraph 3–3.
  - b. Follow the additional responsibilities identified in paragraph 1–42.

#### 1-28. Commanding General, U.S. Army Central

The CG, USARCENT will—

- a. Develop local policies and procedures to establish, manage, and execute a command-level CPC program in accordance with paragraph 3–3.
  - b. Follow the additional responsibilities identified in paragraph 1-42.

# 1-29. Commanding General, U.S. Army North

The CG, USARNORTH will-

- a. Develop local policies and procedures to establish, manage, and execute a command-level CPC program in accordance with paragraph 3–3.
  - b. Follow the additional responsibilities identified in paragraph 1–42.

# 1-30. Commanding General, U.S. Army South

The CG, USARSO will-

- a. Develop local policies and procedures to establish, manage, and execute a command-level CPC program in accordance with paragraph 3–3.
  - b. Follow the additional responsibilities identified in paragraph 1-42.

# 1-31. Commanding General, U.S. Army Special Operations Command

The CG. USASOC will-

- a. Develop local policies and procedures to establish, manage, and execute a command-level CPC program in accordance with paragraph 3–3.
  - b. Follow the additional responsibilities identified in paragraph 1-42.

# 1–32. Commanding General, Military Surface Deployment and Distribution Command The CG. SDDC will—

- a. Develop local policies and procedures to establish, manage, and execute a command-level CPC program in accordance with paragraph 3–3.
  - b. Follow the additional responsibilities identified in paragraph 1–42.

# 1–33. Commanding General, U.S. Army Space and Missile Defense Command/Army Strategic Command

The CG, USASMDC/ARSTRAT will-

- a. Develop local policies and procedures to establish, manage, and execute a command-level CPC program in accordance with paragraph 3–3.
  - b. Follow the additional responsibilities identified in paragraph 1-42.

### 1-34. Commanding General, U.S. Army Cyber Command

The CG, ARCYBER will-

- a. Develop local policies and procedures to establish, manage, and execute a command-level CPC program in accordance with paragraph 3–3.
  - b. Follow the additional responsibilities identified in paragraph 1–42.

#### 1-35. Commanding General, U.S. Army Intelligence and Security Command

The CG, INSCOM will-

- a. Develop local policies and procedures to establish, manage, and execute a command-level CPC program in accordance with paragraph 3–3.
  - b. Follow the additional responsibilities identified in paragraph 1–42.

# 1-36. Commanding General, U.S. Army Criminal Investigation Command

The CG, USACIDC will-

- a. Develop local policies and procedures to establish, manage, and execute a command-level CPC program in accordance with paragraph 3–3.
  - b. Follow the additional responsibilities identified in paragraph 1–42.

#### 1-37. Commanding General, U.S. Army Military District of Washington

The CG, MDW will-

- a. Develop local policies and procedures to establish, manage, and execute a command-level CPC program in accordance with paragraph 3–3.
  - b. Follow the additional responsibilities identified in paragraph 1–42.

# 1-38. Commanding General, U.S. Army Test and Evaluation Command

The CG, ATEC will-

- a. Develop local policies and procedures to establish, manage, and execute a command-level CPC program in accordance with paragraph 3–3.
- b. Operate, maintain, and upgrade capabilities and infrastructure to provide state-of-the-art accelerated corrosion testing and evaluation of systems and components.
- c. Provide a report summarizing accelerated corrosion testing capabilities and activities to the Army CCPE no later than 30 September of each year.
  - d. Follow the additional responsibilities identified in paragraph 1–42.

# 1-39. Commanding General, U.S. Military Academy

The CG, USMA will—

- a. Develop local policies and procedures to establish, manage, and execute a command-level CPC program in accordance with paragraph 3–3.
  - b. Follow the additional responsibilities identified in paragraph 1-42.

#### 1-40. Executive Director, Office of Army Cemeteries

The Executive Director, OAC will-

- a. Develop local policies and procedures to establish, manage, and execute a command-level CPC program in accordance with paragraph 3–3.
  - b. Follow the additional responsibilities identified in paragraph 1–42.

### 1-41. Commandant, U.S. Army War College

The Commandant, USAWC will--

- a. Develop local policies and procedures to establish, manage, and execute a command-level CPC program in accordance with paragraph 3–3.
  - b. Follow the additional responsibilities identified in paragraph 1–42.

# 1–42. Commanders of Army commands, Army service component commands, and direct reporting units

Commanders of ACOMs, ASCCs, and DRUs will-

- a. Ensure that all subordinate command activities understand and fulfill their responsibilities under the command-level CPC program.
- b. Participate in, or lead when assigned, and provide host support to Army CPC survey teams as established in paragraph 3–4 and paragraph 3–4e. When serving as the lead organization for the Army CPC survey, provide all survey reports, results, findings, and so forth, to the Army CCPE within 90 business days of completing the survey.
  - c. Plan, program, and budget resources to comply with the requirements of this regulation.
- d. Ensure that deficiency reports Standard Form (SF) 368 (Product Quality Deficiency Report (PQDR)), SF 364 (Report of Discrepancy (ROD)), and DD Form 1225 (Storage Quality Control Report) on equipment involving corrosion are submitted in accordance with AR 702–7–1, DA Pam 738–751, and DA Pam 750–8.
  - e. Follow the additional responsibilities identified in AR 750–59.
- f. Appoint a senior officer, warrant officer, senior enlisted Soldier or Civilian equivalent (for example, GS–13/14/15) to act as the primary CPC POC for their organization to the Army CCPE within 60 business days of promulgation of this regulation or of a vacancy of the position. Report the name and contact information to the Army CCPE within 15 business days of the appointment. This POC will represent the ACOM, ASCC, or DRU at the headquarters level and is additional to other POCs specifically required in chapter1, section II.
  - g. Ensure that the primary CPC POC—
- (1) Has appropriate background, duties, and responsibilities to carry out this function and the ability to collect and report annually on the required information in accordance with *paragraph 2–3d*.
- (2) Provides timely, complete, and accurate information in response to all information requests distributed by the CCPE, including but not limited to annual reporting requirements in accordance with paragraph 3–2, internal Army leadership briefings, and inquiries from oversight bodies such as GAO and AAA.
- (3) Confirms that unit corrosion monitors (brigade and below) and CPC functional managers (division and above) are appointed, in accordance with AR 750–59.

- (4) Confirms that units implement CPC as part of their CMDPs in accordance with AR 750–1 and the Field Level Requirements Checklist in DA Pam 750–1.
  - (5) Prepares and updates documentation for the command-level CPC program at least every 3 years.
- (6) Submits documentation for the command-level CPC program to the Army CCPE for review prior to initial publication and subsequent revisions.
- (7) Provides copies to the Army CCPE of all command CPC requirements and supporting information submitted to the POM.
  - (8) Participates in regular reviews of funded CPC program activities at the request of the Army CCPE.
- (9) Uses local LARs for assistance with identifying, reporting, and resolving corrosion issues and concerns.

# Chapter 2 Prevention and Control

#### 2-1. Overview

Corrosion is often preventable. Where it is not completely preventable, it must be controlled. The consequences of corrosion are substantial. Corrosion of Army equipment and infrastructure can significantly degrade capabilities, lead to unsafe conditions, and greatly increase the lifecycle sustainment burden. The goal of the Army CPC program is to minimize these negative effects of corrosion of Army assets. The Army will achieve this goal by improving awareness, accountability, and effectiveness of CPC practices throughout the Department. If trade-off decisions involving the effectiveness of CPC techniques must be made, they should be documented and justified as early as possible in the equipment and infrastructure lifecycle.

#### 2-2. Policy

- a. Army equipment and infrastructure will be designed and sustained to address the deleterious effects of corrosion over the lifecycle using effectual equipment design, materials selection, finishes, and processes.
- b. Design and sustainment activities will attempt to prevent corrosion. Only when prevention is not economically or technically feasible should controlling corrosion be accepted. Conditions that induce corrosion, such as preventing water retention or exposure to particulates, acids, or dissimilar metals, will be eliminated wherever possible.
- c. Regular corrosion inspections will be performed. Corroded equipment will receive prompt treatment and maintenance. Protective coating systems will be applied and maintained during the entire life cycle of equipment and infrastructure. A risk-based approach is used to identify critical components or aspects of systems or infrastructure that when degraded by corrosion cause loss of capability or operability, decrease in safety, increased need for maintenance, or special considerations in packaging, storage, and containerization.
- d. Modeling, simulation, and/or accelerated corrosion testing are required during development and prototyping to address issues identified through OSRs of fielded systems and the risk-based approach.
- e. Lifecycle CPC planning begins as early as possible in the acquisition process and is specifically included in the appropriate acquisition documents.
- f. A thorough test program will be implemented aimed at identifying corrosion-prone materials/designs and making suggested improvements during the acquisition cycle, to include exposure and operation in natural field/accelerated environments where corrosion is most likely to occur. All locations to which the Army stations or deploys are classified by their environmental severity classification in accordance with UFC 1–200–01.
- g. The appropriate level of corrosion protection based on environmental severity classification is the default when designing facilities and infrastructure using UFCs, UFGS, and EMs from the WBDG, or other applicable guidance.
- h. When options are given in a specification, standard, or other similar document, the highest level of corrosion protection suitable for the application is the default for designing weapon systems, support equipment, and infrastructure. This is not intended to supersede other policies or contractual requirements pertaining to the use of hazardous or restricted materials.

- *i.* Weapon systems will be designed, including the design of their lifecycle sustainment activities, such that they are protected from corrosion in all geographic locations where they are anticipated to be stationed. This does not apply to overseas contingency operations. The system design and sustainment activities required in a high environmental severity zone will provide a similar level of corrosion protection as the (potentially different) system design and sustainment activities required in a low environmental severity area.
- j. In accordance with AR 700–127 and DA Pam 700–127, installations will provide capable storage facilities meeting the item type storage codes of all supplies, spares, and repair parts required on the installation. Any shortfall, degradation, or inaccessibility of storage facilities at an installation are reported to the Army CCPE as part of command CPC programs. Protective packaging and preservation techniques will be employed during any shipping and storage of equipment and component systems.
- k. Standardized requirements for facilities that support CPC sustainment activities for equipment are established. UFCs, Army standards, and standard designs are created or updated as needed to implement them. All such facilities are evaluated yearly against the new standards, and the results are documented in the designated SMS and reported to the Army CCPE as part of command CPC programs.

#### 2-3. Lifecycle approach

- a. PMs and MATDEVs will-
- (1) Perform lifecycle CPC planning in accordance with AR 70–1, DoDI 5000.85, DoDI 5000.88, DoDI 5000.89 and their PEO's guidance.
- (2) Ensure that CPC requirements are adequately derived in the process of translating capability documents into system/performance specifications and that written measurable, performance-based CPC metrics are developed and evaluated.
- (3) Ensure that every SEP (or equivalent acquisition planning documents that address engineering considerations) addresses CPC planning requirements and that CPC is definitively addressed during trade-off decisions.
- (4) Ensure that every TEMP (or equivalent acquisition planning documents that address testing considerations) addresses CPC planning requirements and uses accelerated corrosion testing to the greatest extent practicable to identify and correct CPC issues and concerns. Summarize the results of such accelerated corrosion testing to the Army CCPE, or provide any test reports prepared by the Government or delivered under contract, within 30 business days of preparation.
- (5) Ensure that every LCSP (or equivalent acquisition planning documents that address sustainment considerations) addresses CPC planning requirements and applies lessons learned from OSRs where CPC planning in the system design or designed sustainment activities was found to have been inadequate.
- (6) Implement the following preferred CPC practices. Alternatively, obtain milestone decision authority (MDA) approval to not implement the following preferred CPC practices, document the decisions and rationale in the SEP, TEMP, and LCSP (or equivalent acquisition planning documents that address engineering, sustainment, and testing considerations) as appropriate, and report the decision in an annual report to the Army CCPE no later than 30 September of each year:
- (a) When utilizing steel (sheet, stamped, wrought, and cast) having a tensile strength lower than 1,000 Megapascal (MPa) (145 kilopounds per square inch (ksi)) in the design of a system that has not achieved milestone (MS) C, and will not achieve MS C within 1 year of promulgation of this regulation, require that such steel be galvanized (lead-free). When galvanizing is not economically or technically feasible, and when repainting the same types of steel for a system that has already achieved MS C or will achieve MS C within 1 year of promulgation of this regulation, require the use of metal-rich primers as part of the coating system, in accordance with paragraphs 2-3a(6)(b) and 2-3a(6)(c). This paragraph does not apply to stainless or corrosion-resistant steels.
- (b) For equipment required to be painted and/or repainted with the CARC system in accordance with applicable Army policy, require the use of qualified CARC system components that provide the highest level of corrosion protection and are suitable for the application, in accordance with the latest versions of MIL-DTL-53072 and the individual component specifications listed therein. When multiple qualified CARC system components are suitable and provide comparably high corrosion protection, use engineering judgment to select the most appropriate. For ground vehicles, follow technical manual (TM) 43–0139. For aviation systems, follow TM 1–1500–345–23.

- (c) For equipment that has been granted an exception to use non-CARC coatings, ensure that the coating system, as intended to be applied, provides equal or better corrosion protection than the qualified CARC systems meeting the criteria of paragraph 2–3a(6)(b). This determination will be based on actual data or objective quality evidence provided by an independent third party to, and approved by, the Army CCPE and the CARC commodity manager of the Army Research Laboratory (ARL).
- (d) Ensure that the CPC requirements of paragraphs 2–3a(6)(a) through 2–3a(6)(c) flow down to all vendor tiers providing systems, subsystems, components, subcomponents, and parts that are painted.
- (e) Consider designing, cataloging, and provisioning equipment covers as additional authorization list (AAL) items for military equipment that is normally intended to be stored outdoors when not in use. The designation of AAL will be included in the equipment TMs. Specific instructions on how and when to properly use and care for these covers will be developed and included in the appropriate authorization documents prior to authorizing them for use.
- (f) Carry out a risk-based approach to manage corrosion over the life of the system. At minimum, this approach will include identifying critical components or aspects of equipment that when degraded by corrosion cause loss of capability or operability, decrease in safety, or increased need for maintenance; evaluating potential mitigation measures; and accepting residual corrosion risks.
- (g) For corrosion issues and concerns identified as high risk in paragraph 2–3a(6)(f), determine and document the most advantageous courses of action from a lifecycle perspective.
- (7) Assess at least annually, the outcome of CPC planning decisions over the lifecycle to determine if they collectively resulted in the intended level of prevention or control of corrosion-related sustainment activities and costs. Review deficiency reports prepared in accordance with DA Pam 738–751 and DA Pam 750–8, OSR reports, and Army equipment CPC survey reports as they are made available. Evaluate any deficiencies identified therein and pursue corrective actions. Notify the Army CCPE of conclusions and decisions within 30 business days of completing each review.
- (8) Provide feedback and lessons learned from these assessments to the PEO or JPEO for use in updating their written implementing guidance on CPC planning in accordance with paragraph 1–9*i*(2).
  - (9) Ensure TMs include, or incorporate by reference, clear instructions on CPC measures.
- (10) In coordination with TRADOC, ensure all new equipment training, for both operators and maintainers, includes a block of instruction intended to aid the user in identifying and mitigating the effects of corrosion on equipment, including nondestructive inspection.
- (11) In coordination with DEVCOM laboratories and centers, continually identify improved CPC methods and materials, and implement these when cost effective. This includes ensuring the improved products are made available in the supply system. Report such improvements to the Army CCPE no later than 30 September of each year.
- b. The CG, USACE in their capacity as the CoE will perform lifecycle CPC planning based on environmental severity classification to ensure that all contracts for design, procurement, repair, or improvement of infrastructure incorporate the highest level of corrosion protection suitable for the application, in accordance with the applicable UFGS, UFCs, EMs, or similar documents.
  - c. The Director of Public Works at each installation will-
  - (1) Utilize the designated SMS to identify, track, and report corrosion on facilities and infrastructure.
- (2) Ensure the highest level of CPC is being incorporated into sustainment, modernization, and repair of infrastructure.
- (3) Continually identify improved CPC methods and materials and implement these when cost effective. Report such improvements to the maintainer of the designated SMS and the Army CCPE.
  - d. The primary CPC POC of each organization identified in chapter 1, section II will—
- (1) Ensure that CPC is incorporated into policy and guidance for each of the following, as applicable to their organization, and identify the funding levels associated with CPC activities in each area:
  - (a) System acquisition and production.
  - (b) Design and maintenance activities.
  - (c) Research, development, test, and evaluation programs and activities.
  - (d) Equipment standardization programs, including international standardization agreements.
  - (e) Logistics research and development initiatives.
- (f) Logistics support analysis as it relates to integrated logistic support in the materiel acquisition process.
  - (g) Military infrastructure design.
- (h) Construction.

- (i) Maintenance activities.
- (j) Packaging and containerization.
- (2) Provide prompt responses to CCPE questions, requests for information and assistance, and annual reporting requirements. See paragraph 3–2.
- (3) Where required in chapter1, section II, develop, implement, and monitor their respective command CPC program, which will include annual reporting requirements. See paragraph 3–2.
- (4) Participate in Army CPC surveys as needed, review the resultant findings, lessons learned, reports, data, and so forth, and coordinate follow-on actions with their respective organization. See paragraph 3–4 and AR 750–59.

#### Chapter 3

#### **Continuous Improvement and Reporting**

Corrosion issues and concerns can be unique to each command and require the ability to adapt and respond to issues and concerns in a timely manner. Implementation of this regulation, in conjunction with the guidance provided in DA Pam 11–42, will address corrosion issues and concerns at all levels of the Army through continuous improvement and reporting.

# 3-1. Executive Army Corrosion Forum

- a. The Executive Army Corrosion Forum (EACF) is the Department of the Army's senior forum for representatives of Army organizations to plan, discuss, and resolve issues associated with CPC policies, procedures, and requirements. The EACF is chaired by the Army CCPE.
- b. The EACF provides advice and counsel to an executive steering group chaired by the DASA (AP&L). The executive steering group will address issues that cannot be resolved at the EACF level.
- c. The Army CCPE will identify appropriate members to attend each EACF meeting based on the agenda. Member attendance is limited to those identified by the Army CCPE.
- d. The EACF will approve and publish the Army CPC survey locations and schedules for the following fiscal year and will assign lead organizations for each.

#### 3-2. Annual report

- a. The Army CCPE will prepare an annual report on Army CPC program activities and funding levels and submit the report to Director, Corrosion Policy and Oversight, OSD no later than 31 December of each year.
- b. The Army CCPE will develop and disseminate an information request to all Army organizations annually, including additional implementing guidance as necessary.
- c. The primary CPC POCs required by this regulation will ensure that their organizations provide timely, complete, and accurate responses to the annual information request on the schedule established by the Army CCPE.

#### 3-3. Command corrosion prevention and control programs

Commanders with CPC programs will establish a local, formal, documented, and auditable process that places command emphasis on prevention, control, detection, and repair of corrosion. Commanders with CPC programs will maintain capabilities, increase readiness and safety, reduce sustainment costs, and align commands with overall CPC program goals. Commanders will—

- a. Designate a POC, reporting directly to the commander, within 60 business days of promulgation of this regulation, who is responsible for the planning, execution, and oversight of all command CPC activities.
- b. Develop local policies, guidance, and metrics to integrate CPC into all command missions and functions.
  - c. Ensure that required CPC sustainment activities are being followed.
- d. Review and adjust periodic system inspection cycles based on operational tempo and environmental severity classification to prevent equipment and infrastructure deficiencies due to corrosion.
- e. Ensure that all personnel under their command understand and fulfill their respective responsibilities under the command CPC program.
- f. Confirm that units implement CPC as part of their CMDPs in accordance with AR 750–1 and the Field Level Requirements Checklist in DA Pam 750–1.
  - g. Plan, program, and budget resources to comply with the requirements of this regulation.

- h. Place command emphasis on identifying and reporting corrosion-related failures and issues that are degrading capabilities, impeding system readiness or safety, or requiring excessive maintenance. Identify systemic corrosion-related issues for elevation to appropriate authorities in the DA and report them at least annually, no later than 30 September, to the Army CCPE. Use the following reporting mechanisms:
- (1) Ensure that deficiency reports: SF 368, SF 364, and DD Form 1225 on equipment involving corrosion are submitted in accordance with AR 702–7–1, DA Pam 738–751, and DA Pam 750–8.
- (2) In accordance with DA Pam 750–8, failures codes are provided to be used in filling out its referenced forms. Ensure Failure Code 170 is used properly to report corrosion issues during equipment maintenance.
  - (3) Ensure corrosion of infrastructure is tracked and reported in the designated SMS.
- *i.* Ensure that CPC methods are fully implemented, to include equipment washing and the application of corrosion inhibiting compounds, to prevent or minimize the effects of corrosion damage, as directed in TMs and other applicable documents.
- *j.* Ensure that command training programs for all HQ and subordinate staff include an appropriate level of awareness and training on the CPC needs and methods applicable to their duties. Command training programs should accomplish the following:
- (1) Integrate CPC procedures into personnel training to increase safety and awareness and to improve Army material readiness.
- (2) Ensure individuals have knowledge of the types and the causes of corrosion, the ability to detect and recognize corrosion, and the expertise to select and implement preventive measures.
- (3) Ensure that Army equipment operators and maintenance personnel in the field are trained to identify, correct, and report corrosion, and employ prescribed CPC practices.
- *k*. Report annually no later than 30 September of each year the progress made in establishing local policy and meeting training goals and other key metrics for inclusion in the annual report to the Army CCPE.
- *l.* Include capability shortfalls in corrosion-related facilities, such as painting preparation and storage areas, paint booths, wash racks, storage facilities, and so forth, in the annual report to the Army CCPE.
- *m.* Participate in and provide host support to Army CPC survey teams as established in paragraph 3–4 and AR 750–59. Assist in determining areas that require improved CPC and recommend evaluation of specific systems, equipment, or components susceptible to corrosion damage.
- n. Plan for CPC surveys in accordance with paragraph 3–4 and AR 750–59 with the appropriate survey team members.
  - o. Ensure that host-tenant agreements include funding for support and training in CPC, as appropriate.
- *p.* In support of corrosion action memoranda, propose action(s) to DCS, G–4 and the Army CCPE based on the results of Army CPC surveys, act on assigned action items, and submit quarterly status reports to DCS, G–4 and the Army CCPE until the action is complete.

#### 3-4. Army corrosion prevention and control surveys

Surveys are any capture of information or data that identifies corrosion on systems, equipment, materiel, facilities, or infrastructure that have the potential for corrosion. Surveys include but are not limited to visual inspections, assessments, reviews, audits, or notes capturing data, photos, or other similar media of exhibited or nonexhibited corrosion.

- a. The purpose of Army CPC surveys is to assess all CPC-related activities located at the surveyed location and provide onsite CPC advice and assistance to command and local personnel.
- b. Army CPC surveys typically have three distinct aspects: performing equipment CPC surveys in accordance with AR 750–59, performing infrastructure CPC surveys (that is surveying the corrosion condition of infrastructure and associated activities), and evaluating all other aspects of command-level CPC programs for the organizations being surveyed. Two or all three of these aspects might overlap in some cases; for example, when evaluating the capability of support facilities needed to perform CPC sustainment activities for equipment.
- c. The Army CCPE, as chair of the EACF will establish an annual schedule for conducting Army CPC surveys. Each major Army installation will be surveyed at least once every 4 years or on an alternate schedule approved by the EACF. Higher environmental severity zones are generally given additional scheduling consideration.
- d. The Army CCPE, as chair of the EACF will assign lead organizations for conducting Army CPC surveys at each location. Typically, AMC LCMCs, and AFC DEVCOM will participate in surveying equipment

while AMC Installation Management Command (IMCOM) and USACE will participate in surveying infrastructure. In accordance with AR 750–59, the CGs, LCMCs in coordination with the Army CCPE will recommend the commands, organizations, or maintenance activity locations to be scheduled for equipment CPC surveys in the next fiscal year, taking into consideration the schedules for OSRs.

- e. Army CPC survey teams will consist of qualified personnel from the LCMCs, IMCOM, DEVCOM centers and laboratories, USACE, and the host command. When necessary, the lead organizations assigned by the EACF may supplement the team membership with representatives from the office of the Army CCPE or other Army organizations. Army CPC survey team leaders will—
- (1) Coordinate site visits to ensure that host commands are afforded sufficient time to identify and arrange support as required.
- (2) Visit installations, depots, equipment concentration or storage sites, and other activities to survey the corrosion condition of Army assets including: real property, bridges, buildings, installed equipment, utilities systems, accountable property, test and sustainment facilities, aircraft, communications and electronic equipment, missiles, Department of Defense military munitions, nontactical vehicles, combat vehicles, tactical vehicles, mobility equipment, support equipment, watercraft, floating equipment, and prepositioned war reserve materiel.
- (3) Evaluate the effectiveness of command-level CPC programs for all affected organizations in accordance with paragraph 3–3. This includes but is not limited to gauging the adequacy of local CPC policies, procedures, training, knowledge, and skills of organizational leaders, LARs, operators, and equipment and infrastructure maintainers.
- (4) Provide entrance briefings to the host command, installation, and other activities being surveyed. The briefing should provide an overview of the Army CPC program, the purpose of Army CPC surveys and how the results of the survey will be used.
- (5) Identify corrosion trends on Army materiel and infrastructure with particular emphasis on trends attributable to environmental severity zone or other unique local conditions.
- (6) Review and evaluate copies of deficiency reports SF 368, SF 364, and DD Form 1225 submitted in accordance with AR 702–7–1, DA Pam 738–751, and DA Pam 750–8.
- (7) Appraise adequacy of facilities needed to perform equipment CPC sustainment and storage activities.
  - (8) Assess identification, tracking, and reporting of infrastructure corrosion in the installation SMS.
  - (9) If requested by the host command, provide an exit briefing with initial results of the survey.

#### Appendix A

#### References

#### Section I

#### **Required Publications**

#### AR 70-1

Army Acquisition Policy (Cited in para 1–9c.)

#### AR 73-1

Test and Evaluation Policy (Cited in para 1–8b.)

#### AR 385-10

The Army Safety Program (Cited in para 1–20b.)

#### AR 420-1

Army Facilities Management (Cited in *para 1–12d*.)

#### AR 700-127

Integrated Product Support (Cited in *para 1–9d.*)

#### AR 702-7-1

Reporting of Product Quality Deficiencies within the U.S. Army (Cited in para 1–42d.)

#### AR 750-1

Army Materiel Maintenance Policy (Cited in para 1–15f.)

#### AR 750-59

Corrosion Prevention and Control for Army Materiel (Cited in para 1–21d.)

#### DA Pam 11-42

Army Corrosion Prevention and Control Program Procedures (Cited in para 1-3.)

#### DA Pam 385-16

System Safety Management Guide (Cited in para 1–20b.)

#### DA Pam 700-127

Integrated Product Support Procedures (Cited in para 1-9d.)

#### DA Pam 750-1

Commanders' Maintenance Handbook (Cited in para 1–15f.)

### DA Pam 750-8

The Army Maintenance Management System (TAMMS) Users Manual (Cited in para 1–42d.)

#### **DoDI 5000.85**

Major Capability Acquisition (Cited in para 1-9d.) (Available at https://www.esd.whs.mil/.)

#### DoDI 5000 88

Engineering of Defense Systems (Cited in para 1–9c.) (Available at https://www.esd.whs.mil/.)

# **DoDI 5000.89**

Test and Evaluation (Cited in para 1–9j(1).) (Available at https://www.esd.whs.mil/.)

#### Section II

#### **Prescribed Forms**

This section contains no entries.

# Appendix B

#### **Internal Control Evaluation**

#### B-1. Function

The function covered by this evaluation is the CPC program.

#### B-2. Purpose

The purpose of this evaluation is to assist in evaluating key internal CPC program controls. It is not intended to cover all controls.

#### B-3. Instructions

These key internal controls must be formally evaluated within the first year of publication of this regulation and at least once every other year thereafter. This is the minimum evaluation period. The Army CCPE, commanders, and/or managers may require more frequent evaluations based on leadership emphasis, personnel turnover, audit and/or inspection findings, change in mission, and so on. Certification that this evaluation was conducted must be accomplished on DA Form 11–2 (Internal Control Evaluation Certification). Evaluation test questions are outlined in paragraph B–4, and are intended as a starting point for each applicable level of internal control evaluation. Answers must be based on the actual testing of key internal controls (for example, document analysis, direct observation, interviewing, sampling, simulation, evaluation, and reports). Answers that indicate deficiencies must be explained and corrective action indicated in supporting documentation.

#### B-4. Test questions

- a. Headquarters, Department of the Army principal officials, Army commands, Army service component commands, direct reporting units.
- (1) Have primary POCs with appropriate background, duties, and responsibilities been assigned and trained?
- (2) Is CPC maintained in all relevant policies, programs, and procedures, which among other things, specifically take into account local environmental severity classifications?
- (3) Have resources been planned, programmed, and budgeted to develop and maintain adequate command CPC programs, taking into account environmental severity classification?
  - (4) Do command CPC programs have commander/leadership emphasis and oversight?
- (5) Have shortfalls, degradation, or inaccessibility of required storage facilities and other corrosion-related facilities at an installation been identified and discussed during Army CPC surveys?
- (6) Has timely, complete, and accurate information been provided to the CCPE in response to all information requests?
  - b. Headquarters, Department of the Army principal officials.
- (1) Have CPC considerations, including environmental severity classification, been incorporated into the PPBE of Equipping, Sustaining, Installations, and Training PEG functions?
- (2) Have CPC guidance, requirements, and funding levels in each of the PEGs been summarized and provided to the Army CCPE?
- (3) Has each designated HQDA principal official assigned and reported the name of their EACF member?
  - c. Program executive officers; program, project, and product managers; and materiel developers.
- (1) Have PMs and MATDEVs identified critical components of their systems from a corrosion standpoint?
- (2) Has accelerated corrosion testing been performed on components and/or the full system to assess the adequacy of the system design (including planned sustainment) to adequately prevent or control corrosion?
- (3) Have PEOs developed and annually reviewed or updated implementing guidance specific to the PMs and MATDEVs in their commodity areas on how to perform efficient and effective life-cycle CPC planning?
  - (4) Has the adequacy of PM and MATDEV CPC planning been evaluated against PEO guidance?

- (5) Have CPC considerations been addressed in the SEP, TEMP, and LCSP (or equivalent acquisition planning documents that address engineering, sustainment, and testing considerations), including any MDA decisions not to implement preferred CPC practices?
- (6) Have PMs and MATDEVs identified the facility capabilities needed to support CPC sustainment of their systems?
  - d. Unit commanders.
- (1) Have CPC procedures that take into account local environmental severity classification been incorporated into unit maintenance standard operating procedures?
- (2) Are equipment maintainers filling out and submitting deficiency reports by using Failure Code 170 for all identified corrosion issues?
- e. Infrastructure organizations including Assistant Secretary of the Army (Acquisition, Logistics and Technology); Assistant Secretary of the Army (Installations, Energy and Environment); Assistant Secretary of the Army (Financial Management and Comptroller); Deputy Chief of Staff, G–9; U.S. Army Materiel Command; U.S. Army Test & Evaluation Command; Chief of Engineers; U.S. Army Corps of Engineers; and others, as appropriate.
- (1) Has a DA Civilian been identified and assigned to serve as the Army assistant CCPE, responsible for coordinating DA-level CPC infrastructure activities throughout the Army?
- (2) Have metrics been developed/updated and implemented to evaluate the effectiveness of the Army Infrastructure CPC program?
- (3) Have SMS policies and procedures been developed/updated and implemented to track and report on corrosion of infrastructure, including but not limited to corrosion maintenance facilities and storage facilities?
- (4) Have UFCs, Army standards, and standard designs been created or updated to implement standardized requirements and capabilities for facilities that support CPC sustainment activities for equipment?
- (5) Has the corrosion condition of the infrastructure at all major Army installations been assessed as part of an Army CPC survey at least once every 4 years or on an alternate schedule approved by the EACF?

# B-5. Supersession

Not applicable.

### B-6. Comments

Help make this a better tool for evaluating internal controls. Submit comments to the ASA (ALT) (SAAL–ZL), 103 Army Pentagon, Washington, DC 20310–0103.

# **Glossary of Terms**

# Army corrosion prevention and control program

A planned and organized effort to limit the damage to equipment and infrastructure, owing to exposure to corrosive conditions, during its operational life cycle including transportation and storage, both short-term and long-term.

#### **Army equipment**

Includes all weapon systems, weapon platforms, vehicles, and munitions of the Army and the components of such items.

#### Corrosion and/or deterioration

The impairment, degradation, or damage of materials (metallic and nonmetallic) as a result of exposure to a natural or induced environment owing to the individual or combined effects of chemical, electrochemical, biological, or physical attacks on the material.

### Corrosion and/or deterioration control

The effort to reduce or prevent the damage of materials from corrosion by proper and timely identification, isolation, documentation, and implementation of appropriate corrective action.

#### Infrastructure

All buildings, structures, airfields, port facilities, surface and subterranean utility systems, heating and cooling systems, fuel tanks, pavements, and bridges.

#### Installation

An aggregation of contiguous or near contiguous, real property holdings commanded by a centrally-selected commander. An installation may be made of one or more sites.

# SUMMARY

AR 11–42 Army Corrosion Prevention and Control Program

This new Army regulation, dated 7 January 2022--

- Identifies roles and responsibilities throughout the Army for the Army Corrosion Prevention and Control Program (chap 1).
- Prescribes Armywide policies for management and oversight of the development, management, execution, and oversight of the Army Corrosion Prevention and Control Program throughout the Army (chap 2).
- Sets forth a policy of continuous improvement and reporting (chap 3).
- Creates the Executive Army Corrosion Forum to resolve issues with implementing this Army regulation (para 3–1).
- Requires an annual report to be prepared and submitted by all Army organizations (para 3–2).
- Formalizes establishment of Command Corrosion Prevention and Control programs by all Commanders (para 3–3).
- Establishes policies on execution of Army Corrosion Prevention and Control surveys (para 3–4).
- Provides internal controls and test questions (app B).