

Army Regulation 10–16

Organization and Functions

United States Army Nuclear and Chemical Agency

**Headquarters
Department of the Army
Washington, DC
25 January 2005**

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SUMMARY of CHANGE

AR 10-16

United States Army Nuclear and Chemical Agency

This major revision dated 25 January 2005--

- o Reflects the addition of functions that support Army Service Component Commanders and Joint Force Land Component Commanders in the collection of scientific nuclear or radiological data on the battlefield (para 2-1b(6)); in the establishment of forces to identify, evaluate, and evacuate nuclear related materials (para 1-5b(7)); in targeting weapons of mass destruction facilities (para 1-5d(6)); and in planning and executing nuclear and nonnuclear operations in support of battlefield counter-proliferation operations assigned to Army Service Component Commanders/Joint Forces Land Component Commanders (para 2-1e(7)).
- o Reflects the U.S. Army Nuclear and Chemical Agency 's role as a charter member of the Army Council for Combating Weapons of Mass Destruction (para 2-1e(2)).
- o Establishes the responsibilities for assisting the U.S. Army Chemical School in the development and maintenance of Army consequence assessment modeling programs and skill identifier for consequence assessment modelers (para 2-1h(4)).
- o Restates selected nuclear and chemical surety responsibilities and functions contained in AR 50-5 and AR 50-6 (para 2-1f).
- o Restates chemical safety responsibilities and functions contained in AR 385-61 (para 2-1f).
- o Reflects the U.S. Army Nuclear and Chemical Agency 's role in representing the Army on the Nuclear Weapons Council Standing and Safety Committee (para 2-1f(4)).
- o Restates selected Army Reactor Office responsibilities and functions contained in AR 50-7 (para 2-1g).
- o Reflects the transfer of the U.S. Army Nuclear and Chemical Agency from the Deputy Chief of Staff, G-3 to the U.S. Army Training and Doctrine Command and the remaining direct tasking authorities of Headquarters, Department of the Army specifically concerning issues related to the Army reactor program; to nuclear, biological, and chemical surety; and to enforcement of nuclear and chemical survivability standards (para 2-2c).

Organization and Functions

United States Army Nuclear and Chemical Agency

By Order of the Secretary of the Army:

PETER J. SCHOOMAKER
General, United States Army
Chief of Staff

Official:



SANDRA R. RILEY
Administrative Assistant to the
Secretary of the Army

History. This publication is a major revision.

Summary. This regulation on the mission and functions of the U.S. Army Nuclear and Chemical Agency has been revised to describe the mission, functions, and command and staff relationships of the agency. This revision reflects an addition of functions that will maintain a core of critical nuclear expertise in a downsized Army.

Applicability. This regulation applies to the Active Army, the Army National

Guard, the Army National Guard of the United States and the U.S. Army Reserve). During mobilization or national emergency, this regulation remains in effect without change.

Proponent and exception authority. The proponent of this regulation is the Deputy Chief of Staff, G-3/5/7. 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 with 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 will be endorsed by the commander or senior leader of the requesting activity and forwarded through their higher headquarters to the policy proponent. Refer to AR 25–30 for specific guidance.

Army management control process.

This regulation does not contain management control provisions.

Supplementation. Supplementation of this regulation and establishment of command and local forms are prohibited without prior approval from HQDA (DAMO–SSD), Washington, DC 20310–0400.

Suggested improvements. Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publication and Blank Forms) directly to HQDA (DAMO–SSD), Washington, DC 20310–0430.

Distribution. Distribution of this regulation is made available in electronic media only and is intended for command levels B, C, D, and E for the Active Army, the Army National Guard of the United States, the Army National Guard, and the U.S. Army Reserve.

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*This regulation supersedes AR 10–16, dated 10 May 1993.

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Glossary

Chapter 1 General

1–1. Purpose

This regulation prescribes the mission and functions of the U.S. Army Nuclear and Chemical Agency (USANCA). It sets forth the responsibilities of the Director, USANCA, and explains the staff relationships with the Army and other Government agencies.

1–2. References

Required and related publications and prescribed and referenced forms are listed in appendix A.

1–3. Explanation of abbreviations and terms

Abbreviations and special terms used in this regulation are explained in the glossary.

1–4. Responsibilities

Responsibilities of the Director, USANCA are listed in chapter 2.

Chapter 2 Responsibilities and Command and Staff Relationships

2–1. The Deputy Chief of Staff, G-3/5/7 (DCS, G-3/5/7) will—

- a.* Approve all Army requirements for nuclear, chemical, and related effects research.
- b.* Maintain direct tasking authority over USANCA for issues related to the Army reactor program; and for nuclear, biological and chemical surety programs; and for enforcement of nuclear and chemical survivability standards.

2–2. The Deputy Commanding General and Chief of Staff (DCG/COS) Training and Doctrinal Command (TRADOC) will—

- a.* Approve all Army requirements for nuclear, chemical, and related effects research.
- b.* Be informed of taskings related to the Army reactor program; the nuclear, biological, and chemical surety programs; and the enforcement of nuclear and chemical survivability standards.

2–3. The Director, USANCA

The mission of USANCA is to provide nuclear and chemical technical expertise in support of all Army elements, and to other U.S. Government and North Atlantic Treaty Organization (NATO) agencies as requested. The Director, USANCA will—

a. Enhance force survivability in nuclear, biological, and chemical (NBC) environments. Specifically, the Director, USANCA will—

- (1) Establish Army nuclear and NBC contamination survivability criteria. Develop and issue quantitative criteria levels for all Army equipment that is required to survive and operate in nuclear, biological, and chemical environments.
- (2) Operate and direct the Nuclear and Chemical Survivability Committee Secretariat (NCSCS), as described in AR 15–41, in support of the Army's Nuclear and Chemical Survivability Committee. Provide Secretariat chairmen and all administrative support to the Secretariat and the Army-level General Officer committee.
- (3) Review all materiel requirements documents for compliance with the Army nuclear and NBC contamination survivability programs.
- (4) Assist combat and materiel developers with the application of nuclear effects and NBC contamination survivability criteria for systems and assist in the evaluation of system survivability shortfalls.
- (5) Monitor the Army nuclear and NBC contamination survivability programs for their effectiveness.

b. Understand and communicate the impact of nuclear and other weapons of mass destruction on military operations. Specifically, the Director, USANCA will—

- (1) Maintain a historical repository of U.S. Army NBC weapons effects data, ensuring Army-wide consistency in effects models. Maintain the official Army database characterizing nuclear and chemical effects on materiel and personnel. Use as input to vulnerability analyses, combatant commander targeting analyses, and survivability criteria.
- (2) Serve as configuration control manager for selected effects and vulnerability models.
- (3) Identify and recommend Army requirements and priorities for radiation and nuclear weapons effects research, related directed energy weapons effects, and related electromagnetic environments technology. Identify, document, and coordinate, all Army requirements for nuclear, chemical, and related effects research.

(4) Advise and assist other U.S. Government agencies on the effects of NBC weapons. Be the Army's resident

expert on the effects of U.S. and foreign nuclear and chemical weapons and their impact on safety, survivability, vulnerability, lethality, and other technical issues.

(5) Advise Army Service component commanders or joint forces land component commanders (ASCC/JFLCC) on nuclear weapon (and other large-scale weapon) effects on friendly schemes of maneuver, including primary effects caused by large-scale blasts, initial nuclear radiation, thermal energy, electromagnetic pulse, and residual nuclear radiation as well as secondary effects of residual radiation and intense fires.

(6) Advise and support the ASCC/JFLCC on scientific data collection on the battlefield after a nuclear or radiological release.

(7) Provide technical advice to the ASCC/JFLCC in the planning and establishment of search and recovery task forces and/or sensitive site exploitation task forces to identify, evaluate, and evacuate nuclear and nuclear related materials out of the theater until such capability resides in fielded forces.

(8) Publish appropriate NBC related literature and periodicals. Develop and publish, at the discretion of the Director, USANCA, a periodical report to enhance awareness of Army NBC matters within the USANCA scope of operations.

(9) Maintain liaison and exchange information with all Government agencies on nuclear and radiological matters.

(10) Provide technical review and comment on all WMD/NBC-related Army and joint publications, in cooperation with the U.S. Army Chemical School.

c. Enhance interoperability of multinational forces in NBC environments. Specifically, the Director, USANCA will—

(1) Participate in international standardization of NBC matters. Serve as DOD action agent for all NATO NBC (nonmedical) groups, working parties, and panels developing and coordinating U.S. positions for their meetings, and working actions between meetings.

(2) Provide the principal United States representative for NATO Land Group 7 (Joint NBC Defense).

(3) Provide the principal United States representative for the NATO NBC Defense Interservice Working Group.

(4) Designate the principal United States representative to NATO NBC-related forums, subordinate to NATO Land Group 7 and the NBC Defense Interservice Working Group.

(5) Provide the deputy to the Standing Chairman of the American, British, Canadian, and Australian (ABCA) Quadripartite Working Group on NBC Defense.

d. Provide the Army's capability to plan the employment of, and assess vulnerability to, nuclear weapons and attacks on nuclear related facilities either by friendly or enemy forces. Specifically, the Director, USANCA will—

(1) Maintain the Army's capability to plan and execute US/NATO offensive nuclear operations. When requested, establish nuclear employment augmentation teams (NEAT) for this purpose to augment designated ASCC/JFLCC during hostilities or when exercising for hostilities. Maintain officers proficient in nuclear planning (additional skill identifier 5H (ASI 5H)), consequences of nuclear execution modeling, nuclear vulnerability analysis, and nuclear weapons effects.

(2) Revise existing joint theater nuclear doctrine, Joint Publication (Joint Pub) 3-12.1, "Doctrine for Joint Theater Nuclear Operations," and Joint Pub 3-12.2, "Nuclear Weapons Employment Effects Data," into one classified joint publication, Joint Pub 3-12.1, "Joint Tactics, Techniques, and Procedures for Theater Nuclear Planning," which combines theater nuclear planning procedures and weapons employment effects data. Maintain Joint Pub 3-12.1 upon approval and publication. Research, compute, coordinate, maintain and provide to Joint Staff J5/J7, nuclear weapons safety, effects, target coverage data, and target analysis procedures, for all nuclear weapons of all U.S. Services. Ensure JP 3-12.1 is useful to all combatant commanders for planning, to the Joint Staff and the Defense Threat Reduction Agency (DTRA) for nuclear joint targeting training and planning, to TRADOC for training leading to ASI 5H certification, and to USANCA NEATs.

(3) Prepare and publish appropriate NBC-related literature necessary for performing assigned functions. Ensure consistency and eliminate redundancy in other Department of the Army-level NBC literature.

(4) Advise and assist other U.S. Government agencies on the technical characteristics and effects of nuclear and radiological weapons. Provide expertise on safety, survivability, vulnerability and lethality, and other effects of nuclear and radiological weapons.

(5) Advise and assist others on nuclear consequences of execution.

(6) Advise the ASCC/JFLCC in the U.S./NATO offensive targeting of WMD-related targets until such capability resides in the fielded forces. Coordinate and support, as necessary, U.S. Strategic Command (USSTRATCOM), DTRA, and other joint and Service staffs.

e. Support counter-proliferation of weapons of mass destruction. Specifically, the Director, USANCA will—

(1) Conduct studies and analyses of foreign nuclear, biological, and chemical weapons and force issues. Conduct time sensitive analyses and longer lead-time requested studies that apply effects data to tactical systems and operations.

(2) Serve as a charter member of the Army Council for Combating Weapons of Mass Destruction.

(3) Assist the development and maintenance of the Army's capability to eliminate an adversary's nuclear weapons development and fielding programs until such time as the capability resides within fielded forces.

- (4) Serve as an advocate to ensure that an adequate nuclear expertise exists in Army organizations developed for chemical, biological, radiological, nuclear and high-yield explosive (CBRNE) crisis response planning and execution.
- (5) Establish and maintain a database of Active Army and Reserve Component personnel with the necessary skill sets to support nuclear disablement operations.
- (6) Maintain nuclear disablement equipment and training in support of the U.S. Army Forces Command (FORSCOM) CBRNE units and contingency plans until such time as that capability resides in fielded forces. In addition, support ASCC/JFLCC as requested with nuclear and offensive counter proliferation support, specifically the attack of WMD related facilities and fielded forces.
- (7) Provide expertise to execute nuclear and nonnuclear operations in support of battlefield offensive counterproliferation operations assigned to ASCC/JFLCC as well as the establishment of a team for this purpose to augment designated ASCC/JFLCC during hostilities or when exercising for hostilities. When requested, coordinate ASCC/JFLCC nuclear and nonnuclear operations with the USSTRATCOM and DTRA.
- f. Enhance safe and secure storage, handling, and disposition of Army-controlled NBC material in accordance with ARs 50-5 and 50-6. Specifically, the Director, USANCA will—
 - (1) Provide staff assistance visits to Army units and installations with nuclear, biological, and chemical surety missions to advise on safety, security, and reliability regulations applicable to these facilities and units.
 - (a) Provide advice and assistance to the Army Staff (ARSTAF), major Army commands (MACOMs), and other Army organizations on surety matters by providing an interface between policy developers and operators.
 - (b) Prepare and forward the annual personnel reliability program status report to DOD.
 - (2) Provide operational and technical input for policy formulation on the Army's response to improvised NBC devices. Establish and maintain dialogue on this subject with appropriate Army organizations, other Services, and Government agencies. At the request of DCS, G-3, fill the Army member position on the Joint Nuclear Accident and Incident Response Team (JNAIRT).
 - (3) Assist the DCS, G-3 in the development of chemical accident or incident response and assistance (CAIRA), nuclear accident or incident response and assistance (NAIRA), and biological accident or incident response and assistance (BAIRA) operating procedures, in accordance with DA Pams 50-5 and 50-6. Support the DCS, G-3 with an on-call NAIRA duty officer.
 - (4) Represent the Army on the Nuclear Weapons Council Standing and Safety Committee.
 - (5) Validate nuclear weapon publications account requirements for the Army. Participate as required in the Joint Nuclear Weapons Publications System.
 - (6) Advise and assist the Department of Energy, national laboratories, and other agencies involved in technical aspects of the development of nuclear weapon systems. Provide membership on warhead project officer groups and other groups, committees, or teams constituted for developing these systems and related equipment.
 - (7) Initiate research and development (R&D) actions for nuclear weapon systems when directed by DCS, G-3. Prepare, coordinate, and maintain military characteristics and stockpile-to-target sequence requirement documents to support the R&D of these systems and related equipment.
 - (8) Maintain essential data for Active Army storage locations securing special nuclear materiel, chemical weapons, and select biological agents.
 - (9) Evaluate chemical safety associated with chemical demilitarization plant and storage facility operations. Conduct safety analyses and program reviews for the Department of the Army Safety Office (DASAF) and others (for example, TRADOC) on chemical stockpile, nonstockpile, and demilitarization operations. Provide copies of the analyses and reviews to the DASAF.
 - (10) Conduct safety site assistance visits of Army chemical storage and operational units on a periodic basis as determined necessary by the DCS, G-3 or the DASAF and advise them of concerns and trends.
 - (11) Provide a group member for all chemical weapons safety studies and reviews.
 - (12) Assist the DASAF in performing chemical safety program evaluations and chemical mishap investigations.
 - (13) Sustain the DASAF's role in overseeing the monitoring of chemical safety activities throughout the Army and advising the ARSTAF on concerns, trends, and corrective actions.
 - (14) Support the DASAF in developing chemical agent safety policy by recommending changes to policies and procedures, to include those affecting soldiers in the field.
 - (15) Participate as required in the Chemical Stockpile Emergency Preparedness Program (CSEPP).
 - (16) Assist the Army staff in formulating policies for safe and secure destruction of recovered war materiel (RWM) chemical and biological weapons.
- g. Ensure safe and secure operation and maintenance of Army nuclear reactors, active or deactivated. Specifically, the Director, USANCA will—
 - (1) Execute the Army Reactor Program for the DCS, G-3.
 - (2) Operate and direct the Army Reactor Office.
 - (3) Chair the Army Reactor Council.
 - (4) Issue permits for all Army reactors (active and deactivated).

- (5) Examine and certify all reactor operators.
- (6) Be responsible for issuing decommissioning permits and oversight of the U.S. Army Corps of Engineers (USACE) decommissioning execution (see AR 50–7).
 - h.* Access, develop, and manage quality officers with nuclear expertise. Specifically, the Director, USANCA will—
 - (1) Act as the proponent for the Nuclear Research and Operations Officer functional area (FA52). Manage the personnel life cycle functions for FA52 in accordance with AR 600–3, “The Army Personnel Proponent System.” Operate and direct the FA52 proponent office.
 - (2) Prepare and administer the FA52 Nuclear Research and Operations Officer Course, the functional area qualification course for officers career-field-designated into the Institutional Support Career Field/FA52 (ISCF/52). Monitor and revise the program of instruction (POI), as required, in coordination with the Defense Nuclear Weapons School, DTRA.
 - (3) Act as the proponent for (ASI) 5H, Nuclear Target Analyst. Prepare and administer the theater nuclear operations course (TNOC), the certifying course for ASI 5H. Review and approve the TRADOC POI for TNOC training based on Army doctrine and joint pubs prepared by USANCA, and assist TRADOC in screening TOEs for ASI 5H requirements. Assist DTRA, as necessary, in teaching TNOC.
 - (4) Assist the U.S. Army Chemical School in the development of a consequence assessment modeling course with an associated skill identifier. Provide technical review of the POI for consequence assessment modeling based on Army doctrine and joint publications. When requested, assist the proponent in teaching the course.

2–4. Command and staff relationships

- a.* USANCA is a combat support agency assigned to TRADOC.
- b.* The Director, USANCA reports to the Deputy Commanding General and Chief of Staff (DCG/COS), TRADOC.
- c.* The DCS, G–3 maintains direct tasking authority over USANCA for issues related to the Army reactor program; nuclear, biological, and chemical surety programs; and enforcement of nuclear and chemical survivability standards. The Director, USANCA will inform the DCG/COS, TRADOC of these taskings.
- d.* USANCA is authorized to communicate directly with any Government agency, organization, or person to support its mission. Copies of such communications will be furnished simultaneously to appropriate commanders or agencies. Formal tasking will be submitted through appropriate channels.
- e.* Any person, Army-wide, may contact USANCA directly for advice or assistance on any NBC matter. Contact with USANCA does not relieve elements from complying with required reporting.
- f.* USANCA information will be made available to other Government agencies based on a need-to-know basis. Release will be as prescribed by security procedures.
- g.* When directed, USANCA personnel will represent the Army staff.

Appendix A References

Section I Required Publications

AR 15-41

Nuclear and Chemical Survivability Committee. (Cited in para 2-3a(2).)

AR 50-5

Nuclear and Chemical Weapons and Materiel, Nuclear Surety. (Cited in para 2-3f.)

AR 50-6

Nuclear and Chemical Weapons and Materiel, Chemical Surety. (Cited in para 2-3f.)

AR 50-7

Army Reactor Program. (Cited in para 2-3g(6).)

AR 600-3

The Army Personnel Proponent System. (Cited in para 2-3h(1).)

DA Pam 50-5

Nuclear Accident or Incident Response and Assistance (NAIRA) Operations. (Cited in para 2-3f(3).)

DA Pam 50-6

Chemical Accident or Incident Response and Assistance (CAIRA) Operations. (Cited in para 2-3f(3).)

Section II Related Publications

A related publication is merely a source of additional information. The user does not have to read it to understand this regulation.

AR 70-1

Army Acquisition Policy

AR 70-75

Survivability of Army Personnel and Materiel

AR 385-61

The Army Chemical Agent Safety Program

DA Pam 385-61

Toxic Chemical Agent Safety Standards

JP 3-11

Joint Doctrine for Operations in Nuclear, Biological, and Chemical (NBC) Environments (www.dtic.mil/doctrine/)

JP 3-12

Doctrine for Joint Nuclear Operations (www.dtic.mil/doctrine/)

FM 100-30

Nuclear Operations

Section III Prescribed Forms

This section contains no entries.

Section IV Referenced Forms

This section contains no entries.

Glossary

Section I

Abbreviations

ABCA

American-British-Canadian-Australian Quadripartite Working Group

ARCCbtWMD

Army Council for Combating Weapons of Mass Destruction

ARCPC

Army Counterproliferation Council

ARSTAF

Army staff

ASCC/JFLCC

Army Service Component Commanders/Joint Forces Land Component Commanders

ASI 5H

Additional skill identifier 5H (Nuclear Target Analyst)

BAIRA

biological accident or incident response and assistance

CAIRA

chemical accident and incident response and assistance

CATS

consequence assessment tool set

CBRNE

chemical, biological, radiological, nuclear and high-yield explosive

CBTDEVs

combat developers

CSEPP

chemical stockpile emergency preparedness program

DASAF

Department of the Army Safety Office

DCG/COS

Deputy Commanding General/Chief of Staff

DTRA

Defense Threat Reduction Agency

FA52

Functional Area 52, Nuclear Research and Operations Officer

HPAC

hazard prediction and assessment capability

ISCF

institutional support career field

JACE

joint assessment of catastrophic events

JNAIRT

joint nuclear accident and incident response team

LCC

land component commander

MATDEVS

materiel developers

NAIRA

nuclear accident and incident response and assistance

NATO

North Atlantic Treaty Organization

NBC

nuclear, biological, and chemical

NCSC

Nuclear and Chemical Survivability Committee

NCSCS

Nuclear and Chemical Survivability Committee Secretariat

NDT

Nuclear Disablement Team

NEAT

Nuclear Employment Augmentation Team

POI

program of instruction

R&D

research and development

RWM

recovered war materiel

TOE

table of organization and equipment

TNOC

Theater nuclear operations course

TRADOC

United States Army Training and Doctrine Command

USANCA

U.S. Army Nuclear and Chemical Agency

USSTRATCOM

United States Strategic Command

Section II**Terms****Configuration control manager**

The assigned person or entity that is responsible for identifying, defining, baselining required software as well as controlling modifications and version releases of the software.

Consequence assessment

An assessment of the consequences of the use of weapons of mass destruction or the purposeful or inadvertent release of chemical or biological agents or radiological material and substances.

Consequence management (DOD)

Those measures taken to protect public health and safety, restore essential Government services, and provide emergency relief to Governments, businesses, and individuals affected by the consequences of a chemical, biological, nuclear, and/or high-yield explosive situation. For domestic consequence management, the primary responsibility rests with the states to respond and the Federal Government to provide assistance as required. Also called CM.

Consequence of execution

The identification of the effects of a friendly nuclear or nonnuclear attack on an enemy target and the surrounding geographic areas and populations during the targeting planning phase of a mission.

Electromagnetic environment

The spatial distribution of electromagnetic energy surrounding a given site. The electromagnetic environment may be expressed in terms of the spatial and temporal distribution of the electric field strength (volts/meter).

Surety

The controls, procedures, and actions that assure safety, security, and reliability.

Survivability criteria

The criteria that establish the capability of a system and crew to avoid or withstand a manmade hostile environment without suffering an abortive impairment of its ability to accomplish its designated mission.

Weapons of mass destruction

This includes nuclear weapons, chemical weapons and agents, biological weapons and agents, and radiological dispersal devices. For the purposes of this regulation, this does not include the FBI definition incorporating high explosives, except as it pertains to chemical, biological, radiological, or nuclear devices and weapons.

Section III**Special Abbreviations and Terms**

This section contains no entries.

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