

## Army Regulation 385-10

Safety

# The Army Safety Program

**Rapid Action Revision (RAR) Issue Date: 4 October 2011**

Headquarters  
Department of the Army  
Washington, DC  
23 August 2007

**UNCLASSIFIED**

# ***SUMMARY of CHANGE***

AR 385-10

The Army Safety Program

This rapid action revision, dated 4 October 2011--

- o Updates explosives safety program roles and responsibilities (para 1-4).
- o Clarifies Army contract safety policy (para 4-2).
- o Clarifies Army oversight and inspections of contractor operations (para 4-3).
- o Updates explosives safety management policy (para 5-2).
- o Establishes requirements for explosives safety management programs (para 5-3).
- o Clarifies Army Motor Vehicle Accident Prevention Policy (para 11-2).
- o Establishes consideration criteria for line-of-duty determinations (para 11-4a(7)).
- o Clarifies criteria for accident avoidance training in the licensing process (para 11-7a(4)).
- o Mandates training under the progressive motorcycle program (para 11-7a(5)).
- o Establishes requirements for motorcycle sustainment training (para 11-7a(6)).
- o Establishes criteria for driver improvement and remedial driver training (para 11-7b).
- o Clarifies criteria for civilians and contractors to enter Army installations (para 11-9a(6)).
- o Clarifies and sets priority for attending motorcycle training (para 11-9a(7)).
- o Defines the progressive motorcycle program (para 11-9b).
- o Establishes criteria for Soldiers to operate a motorcycle (para 11-9b(1)).
- o Identifies follow-on training for Soldiers operating motorcycles (para 11-9b(2)).
- o Identifies acceptable motorcycle training courses for Soldiers operating motorcycles (para 11-9b(3)).
- o Identifies and establishes criteria for motorcycle refresher training (para 11-9b(4)).

- Establishes criteria for accomplishing motorcycle training (para 11-9b(5)).
- Establishes criteria for completing motorcycle sustainment training (para 11-9b(6)).
- Recommends completion of safety training for all terrain vehicles and off-road motorcycle (para 11-9b(7)).
- Sets command responsibility for wearing personal protective equipment (para 11-9d).
- Identifies required personal protective equipment when operating motorcycles (para 11-9d(1-5)).
- Allows commanders to determine the wear of combat helmets for operating combat vehicles (para 11-9e(1)).
- Establishes criteria for operating other types of motorcycles (para 11-9f).
- Clarifies mishap risk management for biological activities (para 20-4).
- Updates requirements for reviewing biological facilities (para 20-5).
- Clarifies requirements for facility preoperational surveys (para 20-6).
- Updates standards associated with transporting etiologic agents (para 20-12).
- Updates safety requirements associated with contract biological activities (para 20-15).
- Defines infectious agents and toxins (terms).
- Makes additional rapid action revision changes (throughout).



Headquarters  
Department of the Army  
Washington, DC  
23 August 2007

\*Army Regulation 385-10

Effective 23 September 2007


## Safety

### The Army Safety Program

By Order of the Secretary of the Army:

RAYMOND T. ODIERNO  
*General, United States Army*  
Chief of Staff

Official:

  
JOYCE E. MORROW  
*Administrative Assistant to the*  
*Secretary of the Army*

**History.** This publication is a rapid action revision (RAR). This RAR is effective 4 November 2011. The portions affected by this RAR are listed in the summary of change.

**Summary.** This regulation implements requirements of the Occupational Safety and Health Act of 1970 as implemented in EO 12196; 29 CFR 1960; DODI 6055.1; DODI 6055.04; and DODI 6055.07. It provides new policy on Army safety management procedures with special emphasis on responsibilities and organizational concepts.

**Applicability.** This regulation applies to the active Army, the Army National Guard/Army National Guard of the United States, and the U.S. Army Reserve, unless otherwise stated. It also applies to Army civilian employees and the U.S. Army

Corps of Engineers and Civil Works activities and tenants and volunteers in accordance with Section 1588, Title 10, United States Code and AR 608-1.

**Proponent and exception authority.**

The proponent of this regulation is the Director of Army Staff. 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 a 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 contains management control provisions and identifies key management controls that must be evaluated (see appendix C).

**Supplementation.** Supplementation of this regulation and establishment of command and local forms are prohibited without prior approval from the Director of Army Safety (DACS-SF), 223 23rd Street, Room 980, Arlington, VA 22202.

**Suggested improvements.** Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to the Army Safety Office, Building 1456, 9351 Hall Road, Ft. Belvoir, VA 22060-5527.

**Committee Continuance Approval.**

The Department of the Army committee management official concurs in the establishment and/or continuance of the committee(s) outlined herein. AR 15-1 requires the proponent to justify establishing/continuing committee(s), coordinate draft publications, and coordinate changes in committee status with the U.S. Army Resources and Programs Agency, Department of the Army Committee Management Office (AARP-ZX), 105 Army Pentagon, Washington, DC 20310-0105. Further, if it is determined that an established "group" identified within this regulation, later takes on the characteristics of a committee, as found in the AR 15-1, then the proponent will follow all AR 15-1 requirements for establishing and continuing the group as a committee.

**Distribution.** This publication is available in electronic media only and intended for command levels A, B, C, D, and E for the active Army, the Army National Guard/Army National Guard of the United States, and the U.S. Army Reserve.

\*This regulation supersedes AR 385-10, dated 29 February 2000; AR 385-16, dated 2 November 2001; AR 385-61, dated 12 October 2001; AR 385-64, dated 1 February 2000; AR 385-95, dated 10 December 1999; AR 11-9, dated 28 May 1999; AR 672-74, dated 28 April 1995; AR 385-40, dated 1 November 1994; AR 385-69, dated 31 December 1993; AR 385-14, dated 8 April 1991; and AR 385-55, dated 12 March 1987. This edition publishes a rapid action revision of AR 385-10.

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## Glossary

## Part One

### Army Safety Program Management Functions

Part One of this regulation addresses general Army Safety Program management functions necessary for sustaining all phases and operations of the Army whether at the garrison, in contingency operations or wartime conditions. Part Two, starting at chapter 12, addresses those special Army Safety Program management functions that are specific to supporting the Soldier during training, mobilization, tactical, and field operations in the garrison or during contingency and wartime conditions. Part Three, beginning at chapter 16, addresses safety functions supporting the garrison and industrial base. Throughout this regulation, the term “Army Headquarters” includes Army commands (ACOMs), Army service component commands (ASCCs), direct reporting units (DRUs), and the National Guard Bureau (NGB).

## Chapter 1

### Army Safety Program

#### Section 1

##### Introduction

##### 1–1. Purpose

This regulation prescribes Department of the Army (DA) policy, responsibilities, and procedures to safeguard and preserve Army resources worldwide (to include Soldiers, Army civilians, and Army property) against accidental loss. It establishes composite risk management (CRM) as the Army’s principal risk reduction methodology and assures regulatory and statutory compliance. It provides for public safety incident to Army operations and activities.

##### 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.

#### Section 2

##### Responsibilities

A successful Army Safety Program depends upon everyone fulfilling his or her safety responsibilities. Army Safety Program responsibilities fall into two categories—specific and general.

##### 1–4. Specific Army Safety Program responsibilities

*a. Secretary of the Army.* The SA will serve as the Department of Defense (DOD) executive agent for emergency response to transportation accidents involving munitions and explosives.

*b. Assistant Secretary of the Army (Installations, Energy and Environment).* The ASA (IE&E) will—

- (1) Provide oversight for all DA matters related to safety and occupational health.
- (2) Set the strategic direction, determine the objectives, establish policy, set standards, and propose programming and funding for these programs.
- (3) Provide policy, oversight, strategic planning and direction, and strategic goals and metrics for the Army Safety Program, including safety policies and standards for Army explosives, biological research, radiological and chemical agent programs, and CRM process.
- (4) Approve, plan, program, and budget for safety programs and activities.
- (5) Initiate program reviews, taskings, studies, and evaluations to ensure the Army Safety Program adheres to DA and DOD safety and occupational health policies and strategic goals and complies with statutory requirements and national standards.
- (6) Serve on boards, committees, and other groups pertaining to safety and occupational health as required by this regulation.
- (7) Represent SA on safety and occupational health matters outside DA.
- (8) Serve as the functional chief for the Safety and Occupational Health Management Career Program.
- (9) Develop guidelines for the Safety and Occupational Health Management Career Program.
- (10) Review and evaluate the execution and performance of the Safety and Occupational Health Management Career Program.
- (11) Approve policies and procedures for the safe disposal of nonstockpile items found on Army installations of formerly used defense sites (FUDS) and establish policy for compliance with environmental laws and regulations for real property containing ordnance and explosives, including on Army ranges.
- (12) Provide oversight of the environmental, safety, and occupational health aspects of the Chemical Demilitarization Program, treaty compliance review, and chemical stockpile emergency preparedness.

(13) Develop policies and procedures for nonacquisition guidance of the Chemical Demilitarization Program.

(14) Develop overall Army policy for safe operation of motor vehicles.

(15) Provide policy, direction, and oversight to ensure the acquisition, operations and maintenance, rehabilitation, and modernization of facilities employ construction and facilities systems safety (FASS) engineering and management to optimize safety and health throughout the life cycle. This is done through the Assistant Chief of Staff for Installation Management (ACSIM) and the Corps of Engineers.

(16) Synchronize safety and occupational health direction and initiatives across the Army and with the Secretary of Defense.

(17) Exercise policy and program oversight for the SA for transportation accidents involving munitions and explosives.

(18) Appoint, in consultation with the Director of Army Safety (DASAF) and the Commanding General, U.S. Army Materiel Command (CG, AMC), an Executive Director of Explosives Safety (EDES).

*c. Assistant Secretary of the Army (Acquisition, Logistics, and Technology).* The ASA (ALT) will—

(1) Ensure program executive officers (PEOs) and project managers implement system safety procedures during materiel development phases.

(2) Oversee the Chemical Demilitarization Program.

(3) Provide documentation of system safety reviews and recommended corrective actions for DA-level in-process reviews.

(4) Ensure safety is maximized in weapons system research, development, test, and evaluation (RDT&E), and acquisition, to include development of acquisition plans, strategies, guidance, and assessments for future weapon systems, as well as munitions that support sustainable ranges.

(5) Evaluate materiel and design alternatives that reduce the potential for environmental impacts from current munitions, and ensure they meet mission-safety performance standards.

(6) Monitor the RDT&E, distribution, and fielding of Army explosive ordnance disposal (EOD) equipment and the procurement of all Army EOD-specific equipment and ammunition.

(7) Oversee the materiel acquisition management of the Army Industrial Safety Program for ammunition.

(8) Be responsible for policy for in-transit arms, ammunition, and explosives safety.

(9) Be responsible for assuring the planning, programming, and budgeting for the safety hazard assessment of Army materiel and systems throughout the full life cycle of these items.

*d. The Inspector General.* TIG will—

(1) Evaluate the safety programs of Army organizations with nuclear, chemical, and biological surety missions according to this regulation.

(2) Conduct other special inspections involving Army safety when directed to do so in accordance with AR 20-1.

(3) Evaluate medical support functions related to the nuclear, chemical, and biological surety programs according to this regulation, AR 40-5, DA Pam 40-8, DA Pam 40-173, and policy and standards published by the Office of The Surgeon General.

*e. Chief, Public Affairs.* The CPA will—

(1) Support the development and execution of stakeholder involvement plans and outreach programs necessary to implement safety policy established by ASA (IE&E) and the Director of Army Safety.

(2) Assure the development of policies and procedures to assist safety staffs and personnel in the effective communication of safety risks.

(3) Advise and counsel Army leadership on public response to accidents and incidents.

*f. Director of Army Staff.* The DAS will serve as the authorized official responsible for executing the proponent responsibilities for all Armywide safety publications and is authorized to approve exceptions and waivers to all Armywide safety publications that are consistent with controlling law and regulations.

*g. Director of Army Safety.* The DASAF will—

(1) Provide staff supervision of the U.S. Army Combat Readiness/Safety Center (USACR/SC) and the Army safety office.

(2) Establish, coordinate, and disseminate policy, guidance, and procedures for the Army Safety Program based upon corporate policy developed by ASA (IE&E), statutory requirements, and national standards in support of the Army's mission.

(3) Advise the Army staff, the Chief of Staff, the Secretariat, and the SA on matters relating to the Army Safety Program and its implementation and effectiveness.

(4) Implement policies and develop procedures for implementing the Occupational Safety and Health Act of 1970 (OSH Act), Public Law (PL) 91-596.

(5) Execute an effective and efficient Army Safety Program in accordance with this regulation and statutory requirements, which provides safe and healthful work environments, missions, and operations and reduces accidents.

(6) Promote the using CRM during all phases of Army planning.



- (7) Monitor and measure Army Safety Program effectiveness through triennial auditing and management evaluation visits of ACOMs, ASCCs, DRUs, NGB, field operating agencies (FOAs), and their subordinate organizations.
- (8) Provide direction and tasking to the Director, U.S. Army Technical Center for Explosives Safety (USATCES), on explosives and chemical agent safety matters.
- (9) Advocate a program of specialized safety training courses for the Army.
- (10) Establish procedures for accident reporting and recording Armywide.
- (11) Determine which accidents will be investigated by the USACR/SC under the centralized accident investigation (CAI) criteria.
- (12) Support appropriate funding to provide for an effective Army Safety Program.
- (13) Periodically, at intervals not to exceed 5 years, review all Headquarters, Department of the Army (HQDA)-approved Certificates of Risk Acceptance (CORAs) and Certificates of Compelling Reasons (CCRs) to ensure risk assessments are current; that all exposures, risks, and mitigating actions are identified and the need for continuance; and provide endorsement to the Secretariat for approval of continuation of the CORA or CCR and any changes to be made to mitigating measures.
- (14) Provide Army staff oversight of the Army Radiation Safety Program; designate, in writing, a qualified health physicist to serve as the Army radiation safety officer (RSO) to manage the Army Radiation Safety Program in accordance with DOD, Army, and Federal regulations.
- (15) Serve as proponent for the Army explosives safety, chemical agent safety, and biological safety programs. Serve as proponent for explosives, biological agent, and chemical agent safety training; review programs of instruction on at least a 3-year basis.
- (16) Conduct preoperational surveys of selected chemical agent and biological operations and all biosafety level 3 (BSL-3) and BSL-4 facilities.
- (17) Monitor compliance with conditions of Nuclear Regulatory Commission (NRC) licenses, Army radiation authorizations (ARAs), and AMC-held radioactive commodity licenses.
- (18) Coordinate with The Surgeon General (TSG) and the U.S. Army Medical Department (AMEDD) functional proponent for preventive medicine (PVNTMED) on the Army Occupational Health Program and on occupational safety issues including medical aspects of safety policy regarding hazard communication and hazardous materials (HAZMAT) program requirements.
- (19) Exchange accidental injury data with TSG for an accurate assessment of the Army health status.
- (20) Approve protective clothing and equipment use in chemical agent operations in accordance with DA Pam 385-61.
- (21) Serve as HQDA focal point for integration and coordination of explosives safety activities and approve all actions that establish an Army explosives safety position.
- (22) In coordination with the Department of the Army Explosives Safety Council (DAESC), submit recommendations for the Army military representative to the Department of Defense Explosives Safety Board (DDESB) and primary and alternate DDESB voting members to the ASA (IE&E) for approval.
- (23) Oversee, in coordination with DCS, G-4, safety aspects of the Ammunition Logistics Reviews. Provide input to DCS, G-4 on explosives safety inspection criteria and special emphasis items.
- (24) Assist the EDES with defining the resources, including funding for USATCES, necessary to accomplish the Army's Explosive Safety Management Program (ESMP) per this regulation.
- (25) Provide Letter of Input for performance evaluations for the Director, USATCES.
- h. Deputy Chief of Staff, G-1. The DCS, G-1 will—*
- (1) Support safety policy and procedure development.
  - (2) Implement policy with advocacy for Soldier-oriented research and development, including issues in manpower, personnel, training, human factors engineering, health hazards, systems safety, and Soldier survivability.
  - (3) Ensure systems safety is integrated into materiel development and acquisition phases through the Manpower and Personnel Integration (MANPRINT) Program; include safety concerns and issues on Army materiel in MANPRINT assessments and presentations at the Army System Acquisition Review Council.
  - (4) Integrate system safety and health hazard reviews into MANPRINT.
- i. Deputy Chief of Staff, G-3/5/7. The DCS, G-3/5/7 will—*
- (1) Establish policy, standards, and procedures for the physical security of chemical weapons.
  - (2) Establish operational controls for chemical agents, munitions, and related weapons systems.
  - (3) Establish policy, standards, and procedures for inspections of storage depots, demilitarization facilities, contractor operations, and commands or agencies with chemical agent oversight responsibilities.
  - (4) Verify the safe disposal, demilitarization, and decontamination of chemical agents and munitions.
  - (5) Ensure safe transit of arms, ammunition, and explosives.
  - (6) Act as focal point for chemical agent matters in the Army.

- (7) Develop and implement policy and procedures governing the selection, training, testing, and licensing of Army motor vehicle (AMV) operators.
- (8) Establish procedures for the Army Flight Standardization Program.
- (9) Approve nonstandard ammunition requirements that are requested by commanders of ACOMs, ASCCs, DRUs, and Chief, NGB. These requirements are then procured by ASA (ALT).
- (10) Provide overall staff responsibility for emergency response support—provided under this regulation—and for transportation accidents involving munitions and explosives.
- (11) Manage the Army EOD program.
- j. Deputy Chief of Staff, G-4.* The DCS, G-4 will—
- (1) Implements policy for safety in demilitarization of ammunition and explosives (A&E).
- (2) Manage the Hazardous Materials Information Resource System.
- (3) Integrate explosives safety requirements into A&E storage construction programs.
- (4) Perform the worldwide ammunition logistics and explosives safety reviews and the Technical Assistance Program in accordance with AR 700-13.
- (5) Establish and maintain procedures for safety-of-flight restrictions for Army aircraft and safety-of-use restrictions for other Army materiel.
- (6) Charter the Army safety action team (ASAT), serve as the chairperson of the ASAT, and maintain and distribute a list, by name, of principal ASAT members and action officers.
- (7) Develop policy and guidance for aircraft weight and balance.
- (8) Develop policy and guidance for the aviation life-support equipment program.
- (9) Develop guidance and policy for nonstandard aircraft equipment program.
- (10) Develop guidance and policy for nonstandard aircraft.
- (11) Oversee DA transportation services required for safe movement of conventional A&E.
- k. Assistant Chief of Staff for Installation Management.* The ACSIM will—
- (1) Establish centralized authority at each installation for workplace safety and Army civilian accident prevention.
- (2) Develop and provide programming guidance to Army Headquarters and installations to support implementation of the provisions of this regulation appropriate to the installation Program Evaluation Group.
- (3) Conduct dialogues with interested members of the public, regulators, and other Federal and State agencies to address safety issues.
- (4) Establish centralized authority at the installations to manage vehicle (privately owned vehicle (POV)) safety programs, and traffic safety.
- (5) Develop procedures for and implement the Army's motor vehicle accident prevention program.
- (6) Develop procedures to collect and report motor vehicle accident prevention surveys and reports required by SA and DOD.
- (7) Establish an impaired and fatigued driving prevention program.
- (8) Establish and resource driver training centers (on- and off-road driver training ranges) at Army locations in CONUS and outside the continental United States (OCONUS) as directed by the Director of Army Staff (DAS).
- (9) Resource required POV and motorcycle safety training programs.
- (10) Provide oversight for all radioactive contamination surveys conducted in support of base closure or installation restoration activities.
- l. The Surgeon General.* TSG will—
- (1) Coordinate with the Office of the Director of Army Safety (ODASAF) on occupational safety and health (OSH) issues including medical aspects of safety policy regarding hazard communication and HAZMAT program requirements.
- (2) Establish policies and procedures for implementing occupational health aspects of the OSH Act.
- (3) Provide occupational health support to the ODASAF for conduct of annual management reviews.
- (4) Collect and analyze accident and injury data for an accurate assessment of the Army health status and collaborate with other DOD organizations to reduce accidents and injuries.
- (5) Provide support to commanders in developing and implementing installation ergonomics programs.
- (6) Advance partnership initiatives that prevent workplace injuries and illnesses.
- (7) Formulate, develop, and disseminate medical policy and guidance for the Army Occupational Health Program, Army Health Hazard Assessment Program, and related issues (such as ergonomics).
- (8) Develop policies, criteria and standards, and procedures for the prevention or control of exposures to occupational health hazards in military-unique work environments.
- (9) Provide guidance and policy on health and safety procedures and protocols for human-use testing.
- (10) Provide advice and guidance for health hazard assessments and medical surveillance during research, development, testing, and fielding of systems and equipment.



(11) Provide technical guidance to Army Headquarters in the evaluation and management of occupational health risks from actual or potential exposures to workplace hazards.

(12) Ensure that occupational health procedures and controls are implemented during the development and fielding of medical materiel and systems.

(13) Establish policy and guidance for the selection of protective clothing and equipment for use in chemical operations.

(14) Provide medical guidance for selecting appropriate protective equipment for use in the biological program.

(15) Review all radiation dose limits in excess of limits promulgated in this regulation and provide these increased limits to the Army RSO for promulgation as necessary.

(16) Establish and promulgate Army radiological health guidelines for deployment operations.

(17) Provide medical support for the Army's activities in Joint chemical, biological, and nuclear surety programs as well as for the Army's Chemical Agent Safety Program and the Army's Biological Safety Program.

*m. The Provost Marshal General.* The PMG will—

(1) Provide staff supervision over programs for motor vehicle traffic supervision to ensure that each installation properly integrates a traffic supervision program, traffic safety enforcement, and installation efforts to cooperate with traffic support programs at the state, regional, and national level.

(2) Maintain liaison with appropriate staff agencies, other military departments, safety personnel, and external agencies on traffic safety and accident reporting systems.

(3) Maintain liaison with the DOT and other Federal departments and agencies on the National Highway Safety Program Standards and programs that apply to military traffic supervision.

(4) Participate in the national effort to reduce intoxicated driving and alcohol safety action projects in neighboring communities.

*n. Army Operations Center.* The AOC will—

(1) Serve as the DOD coordination center for emergency response to transportation accidents in the continental United States (CONUS) involving munitions and explosives.

(2) Determine the military installation nearest the accident and task the installation to provide immediate assistance and/or support, and notify the appropriate military department to contact the installation.

(3) Task U.S. Army Forces Command (FORSCOM), Operations Center, to arrange for EOD service/support from the nearest EOD unit regardless of the service affiliation.

(4) Notify Headquarters, Surface Deployment and Distribution Command (SDDC) and the Department of Transportation (DOT) of all transportation accidents involving munitions and explosives.

*o. Commanding General, U.S. Army Forces Command.* The CG, FORSCOM will—

(1) Coordinate activities across the Army to integrate CRM into programs to protect the force.

(2) Establish safety policy, standards, and guidance for use in exercises, maneuvers, and tactical operations.

(3) Provide EOD assets and emergency responders to installations and combatant commanders as required.

(4) Provide escort of off post chemical surety material and recovered chemical warfare material (RCWM) as requested or required.

*p. Commanding General, U.S. Army Training and Doctrine Command.* The CG, TRADOC will—

(1) Integrate safety and CRM training into the curricula of Army schools.

(2) Ensure that the combat developer incorporates system-safety performance objectives into the concept formulation package.

(3) Incorporate safe operating practices and physical standards in field manuals, training circulars, and other documents.

(4) Establish and maintain Armywide branch specific safety oversight and communications required to gather and disseminate branch safety specific information on current tactics, techniques, and procedures, accidents, near-miss events, and emerging trends.

(5) Integrate safety, CRM, and lessons learned into all branch proponent doctrine, training, and systems.

(6) Integrate safety considerations into new equipment training.

(7) Direct Combat Development Centers to identify hazards and requisite safety standards to be met in critical combat tasks as part of task analysis.

(8) Direct Combat Development Centers to incorporate critical safety parameters in the requirements documents for new systems acquisitions and ensure operational tests verify the product provides requisite protection.

(9) Provide the combat developer position on materiel solutions.

(10) Serve as risk management integration proponent for doctrine, training, and combat development.

(11) Coordinate risk management integration activities across the Army and at Joint-level into programs to develop the force to include doctrine development, requirements definition, common applications, training support, and risk management education in the Army, including Army forces (ARFOR) component in the Joint-level functions.

- (12) Ensure that chemical agent safety training and instruction are consistent with this regulation and monitor the operation of the chemical defense training facility to ensure compliance with this regulation and DA Pam 385–61.
- (13) Ensure tactical chemical agent safety training and instruction are consistent with this regulation and DA Pam 385–61, chapter 12.
- (14) Develop and include appropriate radiation safety training in military occupational specialty (MOS)/specialty skill identifier producing courses and in-unit mission-essential task list profiles for personnel in MOS/specialty skill identifiers and TOE units that use radiation and radioactive commodities, depleted uranium munitions, and depleted uranium armor.
- (15) Prepare training modules (in coordination with the CG, AMC, and the CG, Army Medical Department Center and School (AMEDDC&S) about protection from United States and foreign ionizing and nonionizing radiation sources that may expose Army personnel to radiation during deployment.
- (16) Provide radiation safety courses to qualify unit and garrison RSO's in accordance with NRC applicable licenses.
- q. Commanding General, U.S. Army Materiel Command.* The CG, AMC will—
- (1) Minimize hazards for materiel and systems acquired for the Army and other military services.
  - (2) Identify potential corrective actions for each hazard and project the total life cycle accident costs for each potential corrective measure.
  - (3) Implement the health hazard assessment requirements of AR 40–10.
  - (4) Develop airworthiness qualification of Army aircraft systems in accordance with AR 70–62.
  - (5) Recommend to the ODASAF whether specific chemical agents or weapons systems are safe for storage, shipment, and deployment and what safety controls are required.
  - (6) Provide oversight of contractor activities to ensure the safety of chemical agents during RDT&E sponsored by AMC.
  - (7) Analyze chemical agent event data and recommend remedial actions to ODASAF.
  - (8) Collect, analyze, and disseminate chemical agent safety information to HQDA and activities with a chemical agent mission.
  - (9) Provide final safety review for ammunition-peculiar equipment.
  - (10) Develop and transmit safety-of-use messages for commodities in accordance with AR 750–6 and a vehicle-safety recall campaign.
  - (11) Develop and maintain explosives safety standards for AMC industrial operations and the ammunition production base.
  - (12) Develop and acquire new conventional and nonconventional munitions providing for user and public safety during the manufacture, packaging, transportation, storage, use, and disposal/demilitarization.
  - (13) Report and investigate malfunctions involving A&E (AR 75–1).
  - (14) Ensure proper testing is done on A&E in accordance with Section 173, Title 49, Code of Federal Regulations (49 CFR 173) and technical bulletin (TB) 700–2.
  - (15) Provide final engineering review of specialized equipment used in chemical operations for compliance with DA chemical agent standards (for example, lifting devices/slings; agent containers providing vapor containment for operation, transportation, or storage; and nonstandard or locally fabricated equipment).
  - (16) Identify, establish, and maintain safety training programs to support the chemical agent surety program.
  - (17) Exercise administrative control over NRC licenses and ARAs for Army radioactive commodities within AMC's purview of this regulation.
  - (18) Provide ionizing radiation dosimetry services at the Army Dosimetry Center (ADC) that meet the requirements of 10 CFR 20.1501(c), paragraph 7–2f of this regulation, and DA Pam 385–24.
  - (19) Provide Army low-level radioactive waste disposal services in accordance with DA Pam 385–24.
  - (20) Provide the Army radiation test, measurement, and diagnostic equipment (TMDE) program material and accredited radiation-instrument calibration services (AR 750–43 and TB 750–25).
  - (21) Maintain the capability to provide on-site radiation safety support following radioactive material contamination accidents and incidents in accordance with DA Pam 385–24.
  - (22) Ensure that foreign military sales of radioactive material, items that contain radioactive material, X-ray machines, and military-exempt lasers comply with applicable U.S. regulations and DOD directives.
  - (23) Establish a Fuze Safety Board to ensure that fuzing systems provide an optimum degree of safety. The board will serve as the technical authority for fuze safety of all Army nonnuclear munitions, issue or withdraw interim and/or final safety certifications, review system safety risk assessments (SSRAs) to determine the level of risk during the fuze life cycle, and establish and review design safety criteria and safety requirements for all Army nonnuclear fuzes and safety and arming devices.
  - (24) Establish an Ignition System Safety Board to ensure that rocket motor ignition systems provide an optimum degree of safety.

(25) Establish an Army Weapon System Safety Review Board to ensure that Army weapon systems are safe and suitable during their full life cycle.

*r. Commander, U.S. Army Special Operations Command.* The Commander, USASOC will—

- (1) Provide services to Army special operations forces (ARSOF) worldwide.
- (2) Investigate or provide technical advisors to other commands as required to investigate accidents involving ARSOF-unique tactics, techniques, and procedures.
- (3) Provide ARSOF urban combat training and Army special operations aviation safety standards to be employed during special operations-unique training, in lieu of Army range safety standards.
- (4) Develop policy, procedures, and standards—to include requirements—for conducting ARSOF training and operations.

*s. Commanding General, Surface Deployment and Distribution Command.* The CG, SDDC will—

- (1) Develop and implement DOD and DA intramodal transportation safety policies.
- (2) Review, develop, and implement DA commercial stevedore contracts to ensure they comply with safety and health statutory and regulatory guidance, including this regulation.
- (3) Develop policy for HQDA approval for safety in operations requiring DOD compliance with DOT HAZMAT regulations.
- (4) Develop policy for exemption requests by DOD components for shipments of HAZMAT by DOT shippers that do not comply with DOT regulations.
- (5) Provide traffic engineering support to Army activities.
- (6) Develop safety policy for maritime operations requiring compliance with the International Maritime Dangerous Goods Code (IMDG-Code) when loading vessels at SDDC terminals.
- (7) Obtain waivers (when appropriate) from DOT HAZMAT regulations.
- (8) Develop a memorandum of understanding between the DOD and the Chemical Transportation Emergency Center and the National Response Center for the mutual exchange of information on transportation accidents involving DOD munitions and explosives.
- (9) Provide input to the DOT Emergency Response Guide.
- (10) Establish commercial carrier and driver qualifications and supplementary training requirements, in cooperation with the DOT, for transporting DOD munitions and explosives. Drivers will carry proof of required training or experience.
- (11) Coordinate with the Association of State Police, Highway Patrol, Commercial Vehicle Safety Alliance, or similar organizations, to ensure accident prevention and emergency response cooperation.

*t. Commanding General, U.S. Army Medical Command.* The CG, MEDCOM will—

- (1) Assist HQDA in monitoring biological safety activities throughout the Army to identify concerns, trends, and required corrective actions.
- (2) Provide oversight of chemical agent RDT&E evaluation conducted by contractors.
- (3) Provide safety and health oversight of RDT&E activities, including contractors, in support of the active Army of Joint chemical defense programs sponsored by MEDCOM.
- (4) Implement medical policies and provide health-related chemical agent training to patient care providers and industrial hygienists.
- (5) Provide or designate physicians, industrial hygienists, and other PVNTMED personnel to support chemical and biological inspection teams.
- (6) Implement medical policies concerning military chemical agent support.
- (7) Develop medical policies in support of the active Army of Joint chemical, biological, radiological, and nuclear (CBRN) defense activities.
- (8) Provide on-site medical advice and support following radioactive contamination accidents or incidents in accordance with AR 40-13 and DA Pam 50-5.
- (9) Provide, on a cost-reimbursable basis, radiation safety program assessment services to support triennial surveys of each installation/garrison, each NRC license, Army reactor permit, or ARA holder for compliance with applicable radiation safety and health regulations and guidance.
- (10) Establish and maintain an archive for correspondence relating to NRC licenses and ARAs.
- (11) Establish an occupational health surveillance program for personnel occupationally exposed to radiation in accordance with AR 40-5 and DA Pam 40-11.
- (12) Perform health hazard assessments of commodities and systems in accordance with AR 40-10 as early as practical in their development and before fielding. Perform special occupational health studies (for example radiation studies and toxicity evaluations) in support of health hazard assessments on a cost-reimbursable basis.
- (13) Provide on a cost-reimbursable basis, radiation bioassay services (AR 40-5) that comply with criteria of the American National Standards Institute (ANSI) (see ANSI Safety Code N13.30).
- (14) Ensure the development of doctrine, implementation plans, procedures, capabilities, and training relative to

occupational and environmental health surveillance to address exposures to Soldiers and Army civilian employees throughout their time in service.

(15) Establish CBRN advisory medical teams at appropriate locations.

(16) Provide periodic evaluation of installation occupational health programs along with a plan to ensure appropriate follow-up and resolution of corrective actions. A copy of the evaluation along with the plan for resolution should be provided to the senior commander.

(17) Provide subject matter expertise to commanders and their staffs for the assessment, management, and control of occupational and environmental health risks during the CRM process.

*u. Commanding General, U.S. Army Corps of Engineers.* The CG, USACE will—

(1) Promulgate the safety standards to be used in Army construction and USACE Civil Works facilities and activities (EM 385-1-1).

(2) Ensure that Army standard designs and USACE-administered facility/utility designs and construction conform to statutory and regulatory fire, safety, occupant health, and explosives standards and otherwise provide a safe and healthful workplace for user personnel and materiel.

(3) Assist Army activities in the planning and execution of unexploded ordnance clearance and response operations.

(4) Serve as the Army executing agency for chemical agent cleanup operations at FUDS and provide assistance to active Army installations conducting chemical agent cleanup operations.

(5) Advise and assist the DCS, G-3/5/7 in determining range, training land, and support facility requirements during development of new weapon systems.

(6) Provide FASS policy, direction, and oversight to Army elements in accordance with paragraph 1-4b(15) and chapter 9 of this regulation.

(7) Serve as supporting agency to the coordinating agency (Occupational Safety and Health Administration (OSHA)) under the National Response Plan Safety and Occupational Health Annex.

(8) Provide safety at civil works facilities being used for recreation and/or the visiting public.

(9) Serve as the proponent for Federal Acquisition Regulation (FAR) 52.236-13 and its Alternate 1 for use in DOD construction, renovation, and demolition contracts.

*v. Commander, U.S. Army Test and Evaluation Command.* The Commander, ATEC will—

(1) Review safety documentation and issue safety releases for training, testing, and demonstrations when Soldiers are involved; and safety confirmations in support of major milestone decisions, materiel release decisions, and fielding decisions in support of material release.

(2) Verify safety and health acceptability of systems, primarily by test and evaluation (see AR 73-1).

(3) Ensure that system evaluation plans, test directives, and test design plans for all development tests and operational tests require the collection and recording of data from which an independent assessment of hazards can be made and that the results are documented in all test reports, safety confirmation, and system evaluation reports.

(4) Ensure the U.S. Army Developmental Test Command (DTC) provides a safety documentation for equipment deployment and operation in “host” countries when required.

(5) Verify the effectiveness of safety requirements, design changes, or procedural controls that have been incorporated to reduce the risk associated with previously identified hazards.

(6) Provide the program/product/project manager (PM) notification of the risk assessment code (RAC) assigned to Test Incident Reports and identified potential health and safety hazards in the test report.

(7) Ensure DTC provides AMC and the materiel developer applicable documentation to support preparation of the NRC license for materiel being fielded, which contains radioactive sources.

*w. Army Test and Evaluation Management Agency.* The TEMA will—

(1) Ensure that Army policy on weapon system test and evaluation in support of acquisition adheres to environmental regulations, policy, range safety, and occupational health standards and promotes sustainable ranges in coordination with ASA (ALT).

(2) Serve as the proponent for policies addressing test range clearance and managing range residue.

*x. Commander, U.S. Army Combat Readiness/Safety Center.* The Commander, USACR/SC will—

(1) Conduct centralized investigations of selected Army accidents and hazardous conditions and present the results to Army leadership.

(2) Coordinate on selected combat loss investigations.

(3) Serve as the focal point for instigating the necessary cultural changes and developing the processes, structure, and training necessary to implement CRM Armywide.

(4) Provide support in developing policy and doctrine for loss prevention through CRM.

(5) Develop, coordinate, and facilitate a single entry, multiple use automated reporting system for processing loss reports for use in CRM decisions and to aid in developing loss prevention programs.

(6) Analyze and promptly disseminate situation reports to the Army leadership.

(7) Analyze loss cause factors, systemic origins, and trends; develop exportable procedures, criteria, and techniques



for use of Army Safety Management Information System (ASMIS) and other databases for use in accident analysis by ACOMs, ASCCs, DRUs, Army National Guard (ARNG), installations, and HQDA agencies.

(8) Interact with other military Services, Federal, State, and local agencies and industry to identify and publish best practices and loss prevention strategies.

(9) Develop and disseminate Armywide countermeasures against Army losses.

(10) Conduct a program of safety research and analysis to identify problem areas, causal factors, and system defects; recommend countermeasures.

(11) Develop and manage an Armywide multimedia loss-prevention communications program.

(12) Assist the functional Chief, Army Safety Management Career Program in administering the program and providing centralized training of DA safety interns.

(13) Administer a program to provide safety training and education that meets the Army's needs.

(14) Assist the ODASAF in developing system safety policies, objectives, and evaluation standards.

(15) Provide technical assistance to ASA (AL&T) and Chief Information Officer/G-6 to determine the accuracy and completeness of SSRAs being considered for Army acquisition executive-level decisions on acceptance of risk.

(16) Provide an independent safety assessment of Army Systems Acquisition Review Council systems to the Army Systems Acquisition Review Council Secretary (ASA (AL&T)); provide a copy to the DCS, G-1 (MANPRINT Directorate), and the materiel developer.

(17) Develop and disseminate improved system safety engineering techniques.

(18) Provide system safety lessons learned for MANPRINT analyses.

(19) Provide access to system safety lessons learned.

(20) Establish DA guidance for PMs and equivalent managing activities regarding requirements to track all hazards and provide for timely communication of information on system-wide risks and controls among operators, trainers, and materiel developers.

(21) Establish, identify, and maintain a DA program of generic system safety research in support of Army development, facility, and acquisition programs.

(22) Develop and maintain a DA-level Hazard Communication System to exchange hazard information from accident data to all managing activities as well as hazard information from PMs across the Army.

(23) Establish and maintain the ASMIS and ensure that the ASMIS is responsive and accessible to ACOM, ASCC, DRU, NGB, installation, and HQDA requirements.

(24) Establish and develop Armywide procedures for developing loss prevention programs and assisting Army Headquarters in establishing loss prevention programs within their respective areas.

(25) Maintain the Army accident recommendation tracking system for DA and DOD-level actions.

(26) Collect, tabulate, and analyze all Army personnel and accident loss data.

(27) Disseminate information in accident prevention techniques.

(28) Distribute educational and safety promotional materials.

(29) Provide specific information on new activities and potential hazards.

y. *Commanders and directors of Army commands, Army service component commands, direct reporting units, field operating agencies, and the Chief, National Guard Bureau.* Commanders and directors of ACOMs, ASCCs, DRUs, FOAs, and the Chief, NGB will—

(1) Establish, emphasize, resource, evaluate, and ensure a vital, organization-wide safety program.

(2) Designate a qualified safety professional as the command safety director and the primary point of contact (POC) for all aspects of the command safety program.

(3) Ensure that the command safety director has direct reporting responsibility to the commander and designation as a member of the special staff.

(4) Appoint and rate the aviation safety officers (ASOs) at regiment/brigade/group level and below.

(a) Units that do not have table of organization and equipment (TOE)/table of distribution and allowance (TDA) authorized aviation safety officer (ASO) positions will use the expertise of the next higher authorized aviation safety officer (ASO) in the chain of command. Additionally, commanders not authorized full-time safety personnel by the TOE/TDA will appoint an additional duty safety officer (ADSO).

(b) Commanders will support the resourcing of adequate computer equipment to allow ASOs to perform assigned duties more efficiently.

(5) Designate a radiation safety staff officer when necessary to support subordinate organizations and ensure compliance with prescribed radiation safety programs.

(6) Develop training required by this regulation in accordance with AR 350-1.

(7) Implement the program elements of this regulation, CRM, and share best practices as applicable.

(8) Resource brigade combat team safety professionals to advise the commander on safety and occupational health and integrate CRM at the brigade level.

(9) Administer a safety program consisting of the specific safety program elements listed in table 1–1 as core requirements, and those listed as mission dictated, as required.

(10) Fulfill the requirements listed in paragraph 1–6 of this regulation as applicable for installations not managed by U.S. Army Installation Management Command (IMCOM).

**Table 1–1**  
**Army Safety Program functions**

Chapter		
<b>Part 1–Army Safety Program management functions</b>		
1	Required	Introduction: General Safety Requirements
2	Required	Strategic Planning, Army Safety Program Structure, Safety Program Evaluation, Councils, and Committees
3	Required	Accident Investigation and Reporting
4	Required	Contracting Safety
5	Mission Dictated	Explosives Safety Management
6	Required	Public, Family, Off-Duty Recreation and Seasonal Safety
7	Mission Dictated	Radiation Safety Management
8	Required	Safety Awards Program
9	Mission Dictated	System Safety Management
10	Required	Training Requirements
11	Required	Motor Vehicle Accident Prevention
<b>Part 2–Supporting the force</b>		
12	Mission Dictated	Force Mobilization
13	Mission Dictated	Tactical Safety
14	Required	Safe Cargo Operations
15	Mission Dictated	Aviation Safety Management
<b>Part 3–Supporting the garrison and industrial base</b>		
16	Required	Occupational Safety and Health Program (Workplace Safety)
17	Required	Workplace Inspection
18	Required	Industrial Operational Safety
19	Required	Emergency Planning and Response
20	Mission Dictated	Biological Defense Safety
21	Mission Dictated	Chemical Agent Safety Management
22	Mission Dictated	Marine Activities
23	Mission Dictated	Medical Safety
24	Required	Facility Reuse and Closure

(11) Ensure all systems are used according to safety and health guidance published in technical, field, and training manuals; Ground Safety Notification System; safety of flight; bulletins; circulars; and Army and Federal regulations.

(12) Employ the U.S. Army Corps of Engineers (USACE) as program manager/director for the planning, design, and construction of military construction facilities.

(13) Approve the use of nonstandard ammunition within their commands.

(14) Ensure written procedures are established to implement the accident investigation program within their commands. As a minimum, these procedures will specify—

- (a) Initial accident notification procedures.
- (b) Accident site security responsibilities.
- (c) Installation-level safety office responsibilities.
- (d) Format and content of orders appointing investigation boards.

- (e) Authority of board presidents for determining the scope, equipment, technical assistance, and other support necessary to accomplish investigations.
  - (f) Those installation-level organizations required to support investigations and the type of support required.
  - (g) Provisions for command review and briefings.
  - (h) Internal procedures necessary to safeguard the privileged nature of accident reports maintained under their control.
  - (i) Procedures for establishing and maintaining an accident recommendation tracking system for recommendations within their assigned area of responsibility.
- (15) Ensure subordinate organizations develop, coordinate, and exercise aviation and ground emergency plans (see DA Pam 385–10 and DA Pam 385–40).
- (16) Ensure that the commander or director appoints additional duty safety personnel to perform required safety and accident prevention functions at troop/industrial/administrative units. This includes company-level or equivalent organizational component.
- (17) Ensure subordinate organizations maintain an effective safety program consisting of the specific safety program elements listed in table 1–1, above, based on operational and mission requirements.
- z. Army service component commands.* The ASCCs operating outside the United States will—
- (1) Address the applicability of host nation (HN) safety and occupational health standards to Army operations in regulations and policies.
  - (2) Establish the theater-unique policy and procedures for safety and occupational health requirements to address theater-unique hazards and to ensure compliance with applicable status of forces agreements (SOFAs), supplements, and undersigned protocols thereto.
  - (3) Advocate establishment of safety and occupational health requirements in SOFAs that are common for U.S. and HN personnel.
  - (4) Comply with Army safety standards applicable to operations and missions within the United States and its territories unless compliance is impracticable or would violate applicable SOFAs, supplements, and undersigned protocols thereto.
- aa. U.S. Army Technical Center for Explosives Safety.* The USATCES will execute technical aspects of the Army ESMP for the DASAF, including the following:
- (1) Assign hazard classification to explosives and ammunition and ensure proper coordination with DOD and the military Services.
  - (2) Provide final Army review and approval of explosives and chemical agent safety site and construction plans being submitted for approval on behalf of the ODASAF to the DDESB.
  - (3) In coordination with the ODASAF, continually assess and identify explosives and chemical agent safety training requirements for the Army and for other Services in accordance with the Single Manager for Conventional Ammunition charter.
  - (4) Provide explosives and chemical agent safety training to support Army safety career program requirements (with the exception of the Chemical Demilitarization Program) through the Defense Ammunition Center.
  - (5) Provide technical assistance and track explosives and chemical agent safety waivers, exemptions, Certificates of Risk Acceptance, and CCRs.
  - (6) Provide technical support to the Army staff for budgetary planning on matters affecting explosives safety.
  - (7) Provide explosives safety and chemical agent safety technical information and assistance to HQDA, ACOMs, ASCCs, DRUs, FOAs, and installations in support of Armywide operations.
  - (8) Establish and maintain an explosives safety technical database and a comprehensive explosives safety technical library.
  - (9) Maintain and execute the U.S. Army Explosives Safety Test Management Program to validate, establish, or modify explosives safety requirements promoting research, development, promulgation, and application of explosives safety technology.
  - (10) Provide explosives and chemical agent accident investigation assistance, analyzing explosives and chemical agent accident data and tracking remedial actions to develop and recommend corrective measures to the ODASAF.
  - (11) Track and follow-up inspection results; provide consolidated trend data to ODASAF to develop recommended improvements, prioritization, and program policy changes.
  - (12) Review, approve, and support explosive safety submissions and explosives safety quantity-distance site plans for munitions response development.
  - (13) Perform initial and periodic validation of explosives manufacturing and load, assembly, and pack processes. Provide copies of validations to ODASAF.
  - (14) Conduct explosives safety assistance visits of ammunition activities as requested by HQDA or the ACOMs, ASCCs, DRUs, or NGB. Reports will be provided directly to the commander involved and will contain observations, comments, and recommendations for improvements or changes to specific ammunition operations or processes to enhance safety.

(15) Provide technical support to the DA Explosives Safety Council and the DA Chemical Agent Safety Council.

(16) Maintain database to catalog all explosives or chemical agent CORAs, waivers, exemptions, and CCRs with duration greater than 60 days. Periodically review database to ensure deviations are reviewed at the local level (to ensure risk assessments are current and that all exposures, risks, and mitigating actions are identified) and validate the need for continuance.

*bb. U.S. Army Chemical Materials Agency.* The CMA will—

(1) Establish and maintain a written quality assurance (QA) program consistent with the requirements of the International Standards Organization per DOD guidance.

(2) Ensure that all CMA and cleanup facilities and operations, whether operated by or performed by the Government or contractors, comply with the following:

(a) Specific requirements imposed by DOD, the Army, and other Federal and State agencies as specified in the contract.

(b) All Federal statutes.

(3) Provide centralized management and direction to the DOD for treatment and disposal of RCWM in a safe, environmentally sound, and cost-effective manner.

(4) Prepare transportation, interim holding facilities, treatment plans, and coordination of plans pertaining to RCWM.

(5) Obtain the concurrence of the U.S. Department of Health and Human Services (HHS) on transportation and treatment plans.

(6) Maintain a database of those locations where chemical warfare material was (or was suspected to have been) manufactured, tested, stored, disposed, or disposed of.

(7) Provide public information and encourage public involvement prior to and during the treatment of RCWM in accordance with chapter 24 of this regulation and DA Pam 385–24.

(8) Provide chemical agent medical support training (that is, community medical personnel) to support RCWM response activities.

(9) Conduct preoperational surveys and operational readiness reviews prior to the test and operation of new facilities or equipment, in support of major changes, and when changing campaigns (for example, reconfiguring equipment and facilities to process different munitions or agent). These reviews, conducted with the assistance of oversight agencies (for example, HHS, AMC, U.S. Army Material Systems Analysis Activity, and so forth), document the status of the equipment and facility prior to the decision to operate. The operational surveys and/or reviews take the place of most check-and-hold points associated with traditional Army item development (for example, safety assessment reports, safety releases, independent safety assessments, type classification, and so forth).

(10) Design, approve, and operate equipment and facilities in support of assigned CMA missions to include storage, maintenance, production, and disposal of stockpile and nonstockpile chemical agent and munitions.

*cc. Executive Director of Explosives Safety.* The EDES will plan, program, budget, and execute the funding of resources necessary to accomplish the USATCES mission and to assist the DASAF with the Army ESMP.

*dd. Materiel developers, acquisition managers, and equipment, process, and facility designers.* Materiel developers, acquisition managers and equipment, process, and facility designers will—

(1) Initiate and tailor a System Safety Program in accordance with this regulation, DA Pam 385–16, and Military Standard (MIL–STD) 882D for all Army materiel, systems, software, equipment, facilities, and processes (such as, but not limited to, in-house development, commercial off-the-shelf (COTS), nondevelopmental item (NDI), Government furnished equipment (GFE), and so forth) regardless of the acquisition process utilized (for example, evolutionary, spiral development, and so forth).

(2) Ensure that the System Safety Program addresses materiel change, modifications, integration, fielding, deployment, disposal, and hazard tracking.

(3) Establish, fund, and provide adequate resources to implement and maintain an effective system safety effort covering development, production, fielding, deployment, demilitarization, and disposal for their programs, projects, equipment, processes, and developmental areas.

(4) Obtain the appropriate safety documentation (for example, safety assessment report) from the item or equipment developer or vendor when purchasing and developing equipment/facilities for the Army. Guidance in DA Pam 385–16 must be followed.

(5) Generate a composite risk assessment before allowing Soldiers or Army civilians to use, operate, maintain, and/or dispose of an item, equipment, or facility being purchased or acquired for the Army or other military Services. A safety release must be obtained from Headquarters, DTC or in accordance with guidance provided in DA Pam 386–16 whenever Soldiers are involved in the event.

(6) Certify that safety hazards are eliminated, controlled to the lowest risk level, or the resulting residual risk is formally accepted for their materiel, systems, equipment, facilities, and processes developed, acquired, fielded, and provided to the Army and other military Services.



(7) Ensure that PEOs and PMs serve as the safety officers with responsibility for the proper planning and execution of system safety requirements in this regulation and Department of Defense Instruction (DODI) 5000.2.

(8) Upon identification or report of a significant hazard in fielded systems, materiel, developed equipment, and facilities, immediately initiate risk assessment, funding, and corrective action.

(9) Identify any radioactive material or machines producing radiation and ensure that the NRC license or ARA is obtained.

(10) Obtain a radiation study for all materiel being fielded that contains a radioactive source or emits radiation.

(11) Ensure applicable Army, DOD, and Federal regulations and industry standards are met during design of facilities for the use of radioactive material or machines producing radiation.

*ee. Program Executive Office, Ammunition.* The PEO, Ammo will—

(1) Evaluate nonstandard ammunition requested for use from ACOMs, ASCCs, DRUs, or NGB based on existing information from other Services, North Atlantic Treaty Organization, Federal or State agencies, or upon the results of independent testing.

(2) Authorize nonstandard A&E for Army use. Authorization will include SSRA, health hazard assessment, and surface danger zones.

*ff. Edgewood Chemical Biological Center.* The Edgewood Chemical Biological Center will—

(1) Establish and manage a QA program for all chemical agent storage and use sites except those of CMA.

(2) Provide quality systems certification for organizations, except those of CMA, that conduct agent monitoring activities for personnel and environmental protection.

(3) Provide centralized management and direction to the DOD for treatment and disposal of RCWM in a safe, environmentally sound, and cost-effective manner.

*gg. Contracting officials.* Contracting officials will—

(1) Review contracts to ensure proper clauses are in place to meet Army; DOD; applicable local, state, and Federal regulations regarding safety and occupational health in accordance with applicable DA pamphlets.

(2) Prepare written procedures for reviewing contractor capability to comply with and administer the safety and occupational health aspects of the contract requirements.

(3) Ensure that periodic inspections are conducted by a qualified safety professional at contractor work sites to ensure compliance with this regulation, in accordance with the contract.

*hh. Deploying units.* Deploying units will—

(1) Comply with the ASCCs' safety requirements when deployed into its area of responsibility.

(2) Ensure subordinate commanders, managers, and supervisors are informed regarding their ASCC's safety and occupational health requirements and applicable HN safety requirements.

(3) Follow the safety rules and regulations established by the Service component command and the combatant command unique rules and regulations, as appropriate.

*ii. Commanders of installations and activities with an ammunition or explosives mission.* Commanders of installations and activities with an ammunition or explosives mission will—

(1) Establish an ESMP in compliance with this regulation and DA Pam 385-64.

(2) Ensure civilian and military personnel receive explosives safety training as required by Army policy and standards. Explosives safety training will include explosives risk management training for those responsible for the development and review of deviations and associated risk assessments. Ensure that A&E contracts include appropriate explosives safety training requirements.

(3) Conduct periodic reviews of deviations to explosives safety standards to ensure assessments are current and that all exposures, risks, and mitigating actions are identified and provide a copy of the review through their chain of command to the USATCES for centralized management and oversight.

(4) Conduct periodic inspections and/or audits of A&E activities to ensure compliance with the installation/activity ESMP, this regulation, and DA Pam 385-64, including compliance with the Hazards of Electromagnetic Radiation to Ordnance program requirements.

## **1-5. General Army Safety Program responsibilities**

*a. Soldiers and Army civilians at all levels.* Soldiers and Army civilians at all levels will—

(1) Stop unsafe acts detrimental to Army operations.

(2) Be responsible for accident prevention by applying the mishap risk management component of CRM.

(3) Comply with this regulation, the OSH Act, safety regulations, the Army Occupational Health Program, work practices, and standing operating procedures (SOPs).

(4) Use all personal protective equipment (PPE) and protective clothing provided, including seatbelts, in accordance with training, hazard analyses, work instructions, and as required by the task at hand.

(5) Report Army accidents, near misses, and hazards in their workplace as soon as possible to their supervisor or leader.

(6) Employ CRM in managing risk.

*b. Supervisory and operating personnel who direct or affect the actions of others.* Supervisory and operating personnel who direct or affect the actions of others will—

- (1) Maintain a safe and healthful workplace.
- (2) Inspect the work area for hazards.
- (3) Promptly evaluate and take action as required to correct hazards.
- (4) Be responsible for use of CRM during planning, preparation, and execution of all operations.
- (5) Be responsible for accident prevention to the same extent that they are responsible for production, service, and mission accomplishment.
- (6) Be held accountable for accidents and property damage occurring in operations under their direct supervision and control.
- (7) Ensure that Soldiers and Army civilians are trained and competent to perform their work safely, efficiently, and effectively.
- (8) Counsel and take action as necessary with Soldiers or Army civilians who fail to follow safety standards, rules and regulations (including the use of personal protective clothing and PPE) and seatbelts as set forth in the OSH Act; and Federal, DOD, and Army regulations and pamphlets.
- (9) Conduct safety meetings (such as safety awareness, training, and procedures review) with the Soldiers and Army civilians they supervise.
- (10) Protect Soldiers and Army civilians who identify hazards, raise safety and health concerns, or engage in authorized safety and occupational health activities against reprisal.
- (11) Initiate the necessary actions to facilitate accident notification, investigation, and reporting as soon as they become aware of the occurrence of an accident.
- (12) Establish accountability for safety and occupational health through the performance evaluation system and performance counseling sessions.
- (13) Consult with their servicing civilian personnel office or legal office prior to implementing any rules, policies, procedures, or SOPs that could change the conditions of employment of Army civilian employees.

*c. Army leaders at all levels.* Army leaders at all levels will—

- (1) Provide leadership to their activity/units' safety and occupational health program and accident reduction initiatives.
- (2) Protect personnel, equipment, and facilities under their commands.
- (3) Periodically review their activity/units' safety and occupational health program and accident reduction initiatives.
- (4) Provide adequate resources for an effective safety and occupational health program, compliant with Army policy and program requirements.
- (5) Establish accountability for safety and occupational health through the performance evaluation system and performance counseling sessions.
- (6) Implement safety and occupational health policies.
- (7) Integrate CRM into their mission activities.
- (8) Execute system safety responsibilities as defined in this regulation when purchasing materiel, software, or equipment for all Army operations.
- (9) Coordinate modifications of all Army systems, including software, with all appropriate PEOs or PMs.
- (10) Prohibit visitors from operating any military vessel, aircraft, or vehicle which causes or perceives to cause an increase in risk.
- (11) Provide equipment improvement recommendations or quality deficiency reports for deficiencies, malfunctions, or failures that create unsafe conditions or hazards in accordance with DA Pam 738-751.
- (12) Ensure range safety responsibilities and procedures are implemented in accordance with AR 385-63.

*d. Safety director (officer) and safety staff.* The safety director (officer) and safety staff will—

- (1) Serve as principal advisor to the commander in all safety and occupational health related matters of mission execution pertaining to this regulation and safety and occupational health regulatory and statutory requirements.
- (2) Execute the commander's safety and occupational health program.
- (3) Communicate best practices and share lessons learned.

## **1-6. Policy**

The following principles will be effectively integrated into all Army plans, programs, decision processes, operations, and activities:

- a.* Implement the standards promulgated by the OSH Act as implemented in Executive Order (EO) 12196; 29 CFR 1960; DODI 6055.1; DODI 6055.4; and DODI 6055.7 to provide a safe and healthful environment. The Army shall comply with the requirements in all nonmilitary DOD operations and workplaces, regardless of whether work is performed by military or Army civilian personnel. Apply the more protective or stringent standard where a conflict exists between the standards.

*b.* Instill in Soldiers and Army civilian employees the need to prevent human errors and omissions affecting safety, readiness, and mission success by applying the principles of CRM.

*c.* Encourage employees to report workplace hazards and to ensure that no employee is subject to restraint, interference, coercion, discrimination, or reprisal for exercising his/her rights to report unsafe or unhealthful conditions.

*d.* Achieve a high degree of safety and mission effectiveness through systematic management of inherent mission risks. Employ the CRM process to identify and manage risks to personnel, missions, operations, training, procedures, equipment, and the environment to avoid loss of life, personal injury or illness, property loss or damage, or environmental harm in the course of duty during peacetime, wartime, and contingency operations.

(1) Ensure that safety is a principal element in all operations and apply CRM procedures in each phase of the training management cycle to identify hazardous conditions and correct shortcomings responsible for these conditions.

(2) Integrate CRM procedures into all Army decisionmaking processes.

(3) Integrate the requirement for protecting the force with the demand for realistic training and mission readiness.

*e.* Ensure the safety and health of Soldiers, Army civilian employees, and the general public is a primary concern in the acquisition, use, and disposal of equipment, facilities, and materials.

*f.* Apply the system safety and CRM process during acquisition of materials, equipment, facilities, and systems to identify and manage hazards during the complete life cycle and employ engineering principles to the utmost extent possible to eliminate risks and control residual risks.

*g.* Take appropriate action to expeditiously correct discrepancies with statutory requirements.

*h.* Ensure that the Army Risk Reduction Program and Army Safety Program operate as mutually reinforcing programs.

*Note.* Safety board members may not serve as collateral/legal board members to the same accident. Officers or enlisted members currently performing safety duties may not serve as collateral members.

*Note.* Organizations will develop, coordinate, and exercise aviation and ground preaccident or preemergency plans (see DA Pam 385-10, DA Pam 385-1, and DA Pam 385-40).

### **1-7. Safety advancement**

The requirements contained in this regulation represent the minimum safety requirements. Therefore, safety professionals, Soldiers, Army civilians, and Army leadership at all levels are encouraged to constantly advance safety practices and CRM by applying new technology, innovative best practices, and improved risk management tools.

### **1-8. Supporting Department of the Army pamphlets**

To support the Army Safety Program and execution of this regulation, two types of DA pamphlets have been developed in accordance with DA Pam 25-40. They are the standard DA pamphlet and the informational DA pamphlet.

*a.* The standard DA pamphlets contain the mandatory information needed to carry out the policies and procedures prescribed by this Army regulation to execute specific areas of the Army Safety Program (for example, explosives safety, and chemical agent safety).

*b.* The information pamphlets share “best practices.” These collections of best practices from across the Army provide Soldiers and Army civilian employees with innovative models, examples, and tools to enrich their Army Safety Program. Before publishing, each best practice is reviewed and approved by a group of subject matter experts (SMEs). They are provided purely for information and are not required to execute the Army Safety Program or meet requirements of this regulation.

### **1-9. Conflict resolution**

The Army shall comply with the standards promulgated by Occupational Safety and Health Administration (OSHA) under Section 651, Title 29, United States Code (29 USC 651) or HN requirements in all nonmilitary unique DOD operations and workplaces, regardless of whether work is performed by military, Army civilian, or contract personnel. When an Army Headquarters commander determines that an OSHA standard should be modified for application to particular non-military-unique working conditions, a proposed alternate standard will be developed and submitted to the Commander, U.S. Army Combat Readiness Center/Safety Center (CSSC-PR), Bldg 4905, 5th Ave, Fort Rucker, AL 36362-5363 (with a copy sent to HQDA (DACS-SF), Washington, DC 20310-0300) following guidelines established in 29 CFR 1960.17. The ODASAF will review the proposed standard and, if appropriate, forward it through the chain of command to the Secretary of Labor for approval. Upon approval of an alternate standard, the originating Army Headquarters may proceed with implementation. If adjudged to have Armywide applications, ODASAF will advise HQDA. National consensus standards may be used provided they are equal to or more stringent than Federal legal standards.

*a.* When requirements in this regulation conflict with a legal standard (such as the OSH Act) or provide a lower degree of protection, the more stringent legal standard will apply. When requirements in this regulation are equal to or exceed such requirements in providing workplace safety, the Army requirements will apply.

*b.* At Joint-Service facilities and during Joint operations, when requirements in this regulation conflict with the

workplace-safety standards of another Service's regulations, or provide a lower degree of protection, the other Service's regulations will apply. When requirements in this regulation are equal to or exceed the other Services' requirements in providing workplace safety, the Army requirements will apply.

#### **1–10. Obligation for coordination and collaboration**

Whenever possible, Army personnel will coordinate and collaborate with other services and Federal agencies to develop mutual standards, procedures, and processes.

#### **1–11. Existing documentation and programs**

Existing documentation (for example, written programs like hazard communication, system safety programs, SOPs, waivers, exemptions, hazard analysis, risk assessments, system safety program plans, and so forth) which met standards and regulations at their time of development need not be updated to meet the new requirements of this regulation until other reasons or conditions dictate revision.

## **Chapter 2**

### **Strategic Planning, Army Safety Program Structure, Safety Program Evaluation, Councils, and Committees**

#### **Section I**

#### **Strategic Goals and Strategic Planning**

##### **2–1. Safety program planning**

*a.* Each safety office will develop strategic goals, a strategic plan, and a business plan to execute the strategic plan in accordance with DA Pam 385–10. Strategic planning will include planning for accidents and incidents. Plans will call for inclusion of public affairs operations.

*b.* Strategic planning will determine the organizational direction and metrics.

*c.* Planning within Army safety offices will focus on the organization's mission, vision, values, and goals. As a minimum, the strategic plan should encompass goals and objectives for 5 years, with a section that specifically addresses the focus of each year.

*d.* Strategic planning will be conducted at least annually in preparation for the coming fiscal year. Strategic planning should be conducted in time to identify the organizational goals to be achieved over the coming fiscal year, resources needed to achieve those goals, and funding required.

*e.* Progress in implementing the plan should be reviewed at least quarterly. The frequency of the review depends on the activity level and changes that may affect the plan.

*f.* The strategic planning package will be provided to the organization's commander for review and approval.

##### **2–2. Prioritization**

All safety functions and tasks will be prioritized based on regulatory requirements and strategic planning in accordance with DA Pam 385–10.

*a.* All safety and tasks identified as not being met or completed will be evaluated to identify the potential risk to the organization.

*b.* The organization's commander will be provided the complete ranking of all safety functions and tasks along with the risk assessment for review and approval.

##### **2–3. Strategic Management System**

The Defense Readiness Reporting System is an integrated strategic management and measurement system developed by DCS, G–3/5/7 at the direction of the Chief of Staff, Army (CSA). The system uses the Balanced Scorecard approach and the Army's overall scorecard is the "pinnacle" of the system. Each Army safety office will use the Balanced Scorecard approach in accordance with DA Pam 385–10 during their strategic planning sessions to ensure that goals and objectives are consistent with those established by the CSA.

#### **Section II**

#### **Army Safety Program Structure**

##### **2–4. Introduction**

The Army Safety Program provides the guidance and emphasis necessary to ensure that the Army operates in as safe and efficient an environment as is possible. This is achieved by applying the mishap risk management component of CRM and the formal Occupational Safety and Health (OSH) programs directed at the individual Soldier and Army civilian. Therefore, it is important that safety organizations at all levels support the Army Safety Program. Each

organization's goals and objectives are aligned to execute the Army Safety Program in the most effective manner possible.

## **2-5. Safety organization's functions**

*a.* The safety organization will be structured and staffed to administer a safety program that is based upon the organization's mission, goals, and objectives and in accordance with the DODI 6055 series. The safety organization will—

(1) Support efforts to develop military and Army civilian safety expertise through training, career development, and management procedures.

(2) Provide safety and related loss control services to all tenant and satellite commanders in support of their statutory and regulatory responsibilities. Develop local memorandum of understanding between host and tenant organizations to address necessary safety and occupational health responsibilities.

*b.* The medical components of the OSH programs are provided in AR 40-5.

*c.* The safety organization will execute the tasks and functions that address all aspects of safety: on the job; off the job; military and Army civilian operations; integration of mishap risk management component of CRM; and be consistent with other critical elements contained in table 1-1 as required to meet mission requirements.

*d.* Each safety organization will support efforts to develop military and Army civilian safety expertise through training programs, effective career development, and management procedures.

*e.* Senior commanders are responsible for safety of people, the environment, and the public on their installation. Formal agreements will be developed between host and tenant organizations to ensure necessary safety and occupational health responsibilities are addressed.

## **2-6. Safety office organizational structure**

*a.* The safety office will be structured and staffed to administer a OSH program through the chain of command based upon the organization's mission, goals, and objectives as well as statutory requirements.

*b.* Army safety offices and organizations will be established in accordance with the uniform criteria of this chapter and DA Pam 385-10 to ensure that each office or organization has trained and experienced personnel of sufficient grade and rank to accomplish the safety mission of each command, installation, organization or activity.

*c.* The safety office will be funded and fully resourced to execute all responsibilities and functions designated in this regulation to assure safety program effectiveness.

*d.* Additional duty safety personnel will complete the Additional Duty Safety Course (ADSC) within 90 days of appointment as an ADSO.

## **2-7. Army safety and occupational health program structure**

*a.* The Deputy Assistant Secretary of the Army (Environmental Safety and Occupational Health) (DASA (ESOH)) is the Army Secretariat's proponent for safety and occupational health.

*b.* The Director of Army Safety is the advisor to the CSA on safety issues, supports the SA and CSA, on safety issues, oversees execution of the Army Safety Program, synchronizes risk management integration efforts across the Army, and serves as the risk management advocate to the Army's senior leadership.

*c.* The Surgeon General is the advisor to the CSA on the occupational health aspects of the OSH Act.

*d.* The commander, USACR/SC is the focal point for developing the processes, structure, and training necessary to implement the Army Safety Program.

*e.* The designated safety professional/director will exercise staff supervision over an organization's safety program, mishap risk management component of CRM, and accident prevention activities. Duties performed by the safety director will include the full range of program management responsibilities. The safety director is a member of the commander's special staff and reports directly to the commander. The safety director will meet Office of Personnel Management (OPM) standards for the positions of Occupational Safety and Health, GS-0018/0803.

*f.* The safety staff/safety organization will be staffed with professional safety personnel meeting the requirements for these positions established by the OPM and the Army personnel office.

*g.* Safety organizations will be augmented by additional duty (military) or collateral duty (Army civilian) safety personnel to perform required safety and accident prevention functions in Army units, industrial, and administrative activities. Additional/collateral duty safety personnel will—

- (1) Be appointed by the commander on written orders.
- (2) Be a commissioned officer, at battalion and higher unit levels.
- (3) Be in the rank of staff sergeant or higher, at the company level.
- (4) Have met or will meet the training requirements of chapter 11.
- (5) Have 1 year or more retainability in the unit upon duty appointment.
- (6) Give their safety duties proper priority.
- (7) Report directly to their unit commander on safety-related matters.



(8) Coordinate activities with their installation or garrison safety office.

*h.* Army Civilian collateral safety personnel may be used to augment the safety organization. When used, they will—

(1) Be appointed in writing on orders.

(2) Have met or will meet the requirements of 29 CFR 1960.58— training of collateral duty safety and health personnel and committee members.

(3) Give their safety duties proper priority.

(4) Report directly to their unit commander/director on safety-related matters.

(5) Coordinate activities with their supporting safety office.

*i.* Additional/collateral duty personnel will be authorized use of official time for participating in safety and occupational health activities, including application of mishap risk management component of CRM, walk-around inspections, and other safety functions authorized by this regulation in support of their unit's mission.

*j.* Army safety offices will use a staffing model in accordance with DA Pam 385-10 to determine the optimum organization for achieving the mission. These models will be used to guide organizations and to aid in efforts to improve operations by analyzing how time is spent within an organization.

## **2-8. Safety and occupational health career field**

*a.* The safety and occupational health career field is designated as Career Program (CP)-12. Included in this career field are: GS-0018, Safety and Occupational Health Specialists/Managers; GS-0690, Industrial Hygienists; GS-0640, Industrial Hygiene Technicians; GS-0803, Safety Engineers; GS-1306, Health Physicists; GS-1815, Air Safety Investigators; and GS-1825, Aviation Safety Inspector. The functional chief for career field CP-12 is the DASA (ESOH).

*b.* The Assistant for Safety to the DASA (ESOH) is the Career Program 12 functional chief representative and serves as the functional chief's principal advisor. Responsibilities of the functional chief representatives include—

(1) Establish CP-12-unique requirements on recruitment, selection, promotion, training and development, and retention.

(2) Provide advice on career management.

(3) Identify the core competencies and supporting skills and knowledge that members of the career field must be able to perform and develop with the USACR/SC training and developmental requirements and opportunities to provide these competencies, skills, and knowledge.

(4) Establish programs to identify training and developmental needs, and provide resources to meet these needs.

(5) Establish and chair career planning and program boards.

(6) Request career program funding necessary to provide trained and qualified safety and occupational health professionals to meet the requirements of the Army.

*c.* Personnel assigned to perform the safety and occupational health (CP-12) functions will meet the requirements for these positions established by the OPM and the Army personnel office.

## **Section III**

### **Safety Program Evaluation**

#### **2-9. Performance indicators**

Indicators will be developed by each safety organization based on their strategic goals, strategic plan, mission, and regulatory guidance to measure how effectively their organization's safety program is performing. It is not the intent of this regulation to mandate performance indicators for general use but to require the development of specific measures tailored to the needs of each organization's safety program in accordance with guidance provided in DA Pam 385-10.

#### **2-10. Metrics**

Metrics will be developed for each safety program in accordance with guidance provided in DA Pam 385-10.

*a.* These metrics will include both quantitative and qualitative measures that will provide the proponent of the program, as well as outside agencies, a means of evaluating the program. Examples of metrics that may be applied to safety are rate of accident occurrence, severity and cost, compliance with reporting requirements, corrective action tracking mechanism, regular work site walk-through inspections for safety, employee training program, management solicitation, and use of and feedback of employee comments.

*b.* Each safety organization will determine the metrics most appropriate to measuring the effectiveness of their safety program.

*c.* Data for each metric must be recorded and reviewed with the commander as part of the commander's regular oversight process.

*d.* Statistical methods are used, such as Six Sigma, when possible to measure effectiveness.

**2-11. Program audit**

*a.* Each safety office will be audited for its execution and integration of the Army Safety Program into its organization's mission, both internally and by its higher commands on a periodic basis in accordance with guidance in DA Pam 385-10.

*b.* These audits will not be compliance audits but rather programmatic audits to measure the overall effectiveness of management controls for integrating the Army Safety Program into their business process and mission execution. Compliance issues may be used as a measure of effectiveness but will not be the primary focus of the audit.

*c.* Each organization will conduct and document an annual programmatic audit of their program execution using their performance indicators and matrices.

*d.* Each level of command will develop and implement an audit program that ensures each subordinate organization is evaluated every 3 years at the minimum.

**2-12. Occupational Safety and Health Administration inspections**

In accordance with the provisions of EO 12196, DODI 6055.1, and within the scope of the OSH Act, National Institute for Occupational Safety and Health officials, acting as representatives of the Secretary of Labor, are authorized to conduct announced or unannounced inspections of all Army civilian workplaces except those identified as military-unique workplaces.

**Section IV****Safety Committees and Councils****2-13. Department of the Army safety planning**

Safety and occupational health committees shall be established at each echelon of Army organizations to assist in the planning, coordination, prioritization, and implementation of OSHA programs. To aid the DASA (ESOH) in developing strategic policy and the ODASAF in developing and implementing policy, and programs, the following councils will be chartered to provide technical advice, participate in program development and maintain various portions of this regulation and supporting DA pamphlets. Each council will meet as needed, but not less than once a year to address issues in their areas of interest.

**2-14. Joint councils**

Joint councils shall be established as required to coordinate safety activities and functions between the Services. The ASA (IE&E) and the ODASAF shall take the lead in establishing Joint councils with other Services and Army civilian agencies and selecting representatives to participate in the councils.

**2-15. Army Safety Coordinating Panel**

The Army Safety Coordinating Panel oversees Army safety strategic planning, and safety and risk management integration in the Army's Transformation.

*a.* The functions of the panel are to—

(1) Identify opportunities for integrating safety and CRM in synchronization with Army Transformation.

(2) Oversee and assist in coordination of annual action plans that support the Army Safety Strategy.

(3) Assess progress of actions specified in action plans that support the Army Safety Strategy and provide updates to the SA and the CSA.

*b.* The Army Safety Coordinating Panel will be co-chaired by the DASA (ESOH) and the DAS. It will report through the Vice Chief of Staff, Army to the CSA and through the ASA (IE&E) to the SA.

**2-16. Army Safety Action Team**

*a.* The functions of the team are to—

(1) Provide the Office of the Chief of Staff, Army with recommendations and information involving air and ground equipment safety issues.

(2) Coordinate, expedite, advise, and provide recommended direction to ensure safety correction measures maximize Army readiness, safety, and training.

*b.* The ASAT is composed of principle representatives from ASA (ALT); DCS, G-3/5/7; DCS, G-4 (chairman); DCS, G-8; ODASAF; AMC; appropriate PEO; applicable proponent branch chief; applicable materiel developer for the system being reviewed; and advisory members in accordance with the team's charter.

**2-17. Department of the Army Safety and Occupational Health Advisory Council**

*a.* The functions of the Department of the Army Safety and Occupational Health Advisory Council (DASOHAC) are to—

(1) Provide an opportunity for senior safety professionals to discuss current safety and occupational health issues affecting execution of the Army Safety Program.

- (2) Provide opportunities for advancing and integrating safety and CRM in the Army Safety Program.
  - (3) Provide an open forum for discussing and sharing new concepts, ideas, programs, and techniques for safety and occupational health.
  - (4) Recommend changes to this regulation and DA Pam 385–10.
  - (5) Synchronize Army safety and occupational health direction and initiatives.
- b.* The DASOHAC is composed of senior safety professionals from designated ACOMs, ASCCs, DRUs, or NGB and FOAs. The council provides technical advice to the DASA (ESOH) and ODASAF for the technical execution of the Army Safety Program. The Assistant for Safety to the DASA (ESOH) will chair the DASOHAC. The Senior Safety and Health Manager, ODASAF, will serve as secretary.

## **2–18. Career Program–12 Career Planning Board**

- a.* The CP–12 Career Planning Board will advise and assist CP–12 functional chief representative in—
- (1) Forecasting and planning for staffing needs.
  - (2) Reviewing proposals to change the career planning, career planning policy, or the Army Civilian Training, Education, and Development System (ACTEDS) plan.
  - (3) Ensuring relevancy of job related criteria used in evaluating individuals for referral.
  - (4) Ensuring that ACTEDS requirements for career planning are fully and economically managed.
  - (5) Recommending changes or modifications to the ACTEDS master training plan, career ladders, and/or other elements.
  - (6) Furnishing information to the functional chief representative to support the programming and budgeting of ACTEDS resources.
- b.* The membership will consist of—
- (1) The functional chief representative who serves as chairperson.
  - (2) The Director of Army Safety’s designated representative.
  - (3) All ACOM, ASCC, DRU, and NGB safety and health PMs.
  - (4) Designated Central Program Operations Division representative.
  - (5) Functional representatives for the GS–0018, GS–0803, and GS–1306 career series.
  - (6) Functional representatives for—
    - (a)* GS–0018, Safety and Occupational Health Managers.
    - (b)* GS–0690 Industrial Hygienists.
    - (c)* GS–0640 Industrial Hygiene Technicians.
    - (d)* GS–0803 Safety Engineers.
    - (e)* GS–1306 Health Physicists.
    - (f)* GS–1815 Air Safety Investigators.
    - (g)* GS–1825 Aviation Safety Inspector career series.
- c.* Functional representatives are selected by the functional chief representative based on ACOM, ASCC, DRU, and NGB nominations.
- d.* The functional chief representative serves as co-chairperson and the career management officer serves as the board’s recorder.

## **2–19. The Department of the Army Biological Safety and Health Council**

- a.* The Department of the Army Biological Safety and Health Council (DABSHC) will provide technical guidance and support to the DASA (ESOH) and the ODASAF to assist them in fulfillment of their biological safety function management, policy and standards development, and oversight responsibilities.
- b.* The Council will make recommendations to changes in the Army’s biological safety policy and program management and will provide technical expertise to DASA (ESOH) and ODASAF as required for biological program management and execution (as outlined in this regulation and DA Pam 385–69).
- c.* A representative of the ODASAF will chair the DABSHC. The chair will convene and conduct meetings and provide direction to the Council.

## **2–20. The Department of the Army Chemical Agent Safety Council**

- a.* The Department of the Army Chemical Agent Safety Council (DACASC) will serve as an open forum to elevate and discuss Army chemical agent safety and health policy and program issues at the HQDA level.
- b.* The council will make recommendations to changes in the Army’s chemical safety policy and program management and will provide technical expertise to DASA (ESOH) and ODASAF as required for chemical agent safety program management and execution (as outlined in this regulation and DA Pam 385–61).
- c.* The DACASC will be co-chaired by a representative of the ODASAF and a representative of AMC.



## 2-21. The Department of the Army Explosives Safety Council

a. The Department of The Army Explosives Safety Council will be organized as a standing Army council to discuss and resolve Army technical explosives safety policy issues. The council gives selected Army Headquarters a voice in the formation of Army explosives safety policy.

b. The Council will make recommendations to changes in Army's explosives safety policy and program management and will provide technical expertise to DASA (ESOH) and ODASAF as required for explosives safety program management and execution (as outlined in this regulation and DA Pam 385-64, and DA Pam 385-65).

c. A representative from ODASAF chairs the Department of the Army Explosives Safety Council.

## 2-22. The Department of the Army System Safety Council

a. The Department of the Army System Safety Council will provide technical guidance and support to the DASA (ESOH), ODASAF, and assist them in fulfillment of the Army's system safety function management, policy and standards development, and oversight responsibilities.

b. Membership shall be open to all ACOMs, ASCCs, DRUs, or NGB and FOAs with a system safety mission.

c. The Council will make recommendations for changes in the Army's system safety policy and to DA Pam 385-16.

d. A representative from the ODASAF will chair the council and a member of the AMC Safety Office will serve as recorder.

## 2-23. Department of the Army Radiation Safety Council

a. *Advisory body.* The Department of the Army Radiation Safety Council is the advisory body to CSA, providing recommendations for Army radiation safety directives gathering and disseminating information about the status of the Army Radiation Safety Program.

b. *Membership.* Membership includes the Director of Army Safety (as chair), the Army RSO (as recorder), the radiological hygiene consultant to TSG, and representatives of the ACSIM, Army Reactor Office (AR 50-7), the Director, IMCOM, and the radiation safety staff officer from each ACOM, ASCC, DRU, and the NGB.

c. *Additional radiation councils.*

(1) *Army Command, Army Service Component Command, Direct Reporting Unit, and National Guard Bureau Radiation Safety Council.* The council is the advisory body to the ACOM, ASCC, DRU, and NGB commander/IMCOM director that provides recommendations for radiation safety directives, gathers, and disseminates information about the status of the radiation safety program.

(a) Membership includes the commander/director as chair (or a designee who is a senior member of the commander's/director's staff), the RSO (recorder), major subordinate command RSOs. The RSO may not serve as the chair.

(b) Each ACOM, ASCC, DRU, and ARNG Radiation Safety Committee (RSC) should meet at least once each 6-month period and at the call of the chair.

(2) *Installation Radiation Safety Committee.* When the senior commander establishes a RSC—

(a) The installation RSC is the advisory body to the senior commander that gathers and disseminates information about the status of the installation radiation safety program.

(b) Membership includes the senior commander as chair (or a designee who is a senior member of the commander's staff), the installation RSO (recorder), and all tenant RSOs. Installations with large numbers of TOE unit personnel that use radioactive commodities will include military representatives knowledgeable about the TOE units' radiation safety programs.

(c) Each installation RSC will meet at least once each calendar year and at the call of the chair.

(3) *Radiation Safety Committee.* When a technical publication or condition of an NRC license, Army reactor permit, or ARA requires a RSC, it will meet the following requirements in addition to any other requirements of applicable directives:

(a) The RSC will meet at least once in each 6-month period and at the call of the chair.

(b) The commander or a designated representative (someone at the executive level in the organization who is not a radiation user) should chair the RSC. The RSO should be the recorder and will be a voting member.

## 2-24. Safety and Occupational Health Advisory Council

Army Headquarters and installations will establish Safety and Occupational Health Advisory Councils composed of management and military and Army civilian operating personnel.

a. Such councils will be chaired by the commander or the commander's designee, who will be a senior management official.

b. Councils will meet at least semiannually and will publish the minutes of the meetings.

c. Army Headquarters commanders may exempt installations having small populations from the requirements of this paragraph.

d. Establishment of councils at other than installation level will be at Army Headquarters' discretion.

e. Commanders of separate detachments, companies and above will establish a Soldier and Army Civilian Employee

Safety Committee. The committee will be representative of the workforce within the organization. The number of committee members shall be based on the size, safety needs, and diversity of the operations performed by the organization. Committee members shall receive appropriate training to perform duties and may be assigned responsibilities for operational safety matters. The safety committee members shall—

- (1) Review safety suggestions.
- (2) Review accident reports and recommend corrective measures to prevent recurrence.
- (3) Review suspected unsafe or unhealthful working conditions and corrective measures.
- (4) Promote safety education within the organization.
- (5) Conduct periodic self-assessments in their areas of responsibility and coordinate with the organization's safety office.

## **2–25. Safety conferences**

*a.* The ODASAF will host Armywide safety conferences to promote professional development and address safety issues facing the Army.

*b.* The ACOM, ASCC, DRU, and NGB safety offices will host safety conferences as necessary. These conferences will address ground, aviation, and other safety topics.

## **Chapter 3 Accident Investigation and Reporting**

### **3–1. Introduction**

This chapter provides policies and procedures for initial notification, investigating, reporting, and submitting reports of Army accidents and incidents.

### **3–2. Policy**

Army policy is to investigate and report Army accidents to prevent like occurrences. All Army accidents will be investigated, reported (to include immediate notification as specified in this regulation), and analyzed in accordance with the requirements of this regulation, DA Pam 385–40, USACR/SC use and preparation guides, and other USACR/SC-developed tools for accident investigation and reporting.

### **3–3. Army accident**

An Army accident is defined as an unplanned event, or series of events, which results in one or more of the following:

- a.* Occupational illness to Army military or Army civilian personnel.
- b.* Injury to on-duty Army civilian personnel.
- c.* Injury to Army military (on duty or off duty).
- d.* Damage to Army property.
- e.* Damage to public or private property, and/or injury or illness to non-Army personnel caused by Army operations (the Army had a causal or contributing role in the accident).

### **3–4. Accident and incident classes**

Accident classes are used to determine the appropriate investigative and reporting procedures. Accident classes are as follows:

*a. Class A accident.* An Army accident in which the resulting total cost of property damage is \$2 million or more; an Army aircraft is destroyed, missing, or abandoned; or an injury and/or occupational illness results in a fatality or permanent total disability. Note that unmanned aircraft system (UAS) accidents are classified based on the cost to repair or replace the UAS. A destroyed, missing, or abandoned UAS will not constitute a Class A accident unless replacement or repair cost is \$2 million or more.

*b. Class B accident.* An Army accident in which the resulting total cost of property damage is \$500,000 or more but less than \$2 million, an injury and/or occupational illness results in permanent partial disability, or when 3 or more personnel are hospitalized as in-patients as the result of a single occurrence.

*c. Class C accident.* An Army accident in which the resulting total cost of property damage is \$50,000 or more but less than \$500,000, a nonfatal injury or occupational illness that causes 1 or more days away from work or training beyond the day or shift on which it occurred or disability at any time (that does not meet the definition of Class A or Class B and is a day(s) away from work case).

*d. Class D accident.* An Army accident in which the resulting in total cost of property damage is \$2,000 or more but less than \$50,000, a nonfatal injury or illness resulting in restricted work, transfer to another job, medical treatment greater than first aid, needle stick injuries, and cuts from sharps that are contaminated from another person's blood or

other potentially infectious material, medical removal under medical surveillance requirements of an OSHA standard, occupational hearing loss, or a work-related tuberculosis case.

*e. Class E aviation accident.* An Army accident in which the resulting total cost of property damage is less than \$2,000.

*f. Class F aviation incident.* Recordable incidents are confined to aircraft turbine engine damage because of unavoidable internal or external foreign object damage, where that is the only damage (does not include installed aircraft auxiliary power units). These incidents will be reported using DA Form 2397-AB (Abbreviated Aviation Accident Report); check "F" in the "Accident Classification" block.

### 3-5. What to report

Commanders/supervisors will investigate and report in accordance with paragraph 3-8*b*, below, to the unit/local safety office any unplanned events that result in one or more of the following:

*a. Injuries and occupational illnesses.*

(1) Injury or occupational illness (fatal or nonfatal) to on-duty or off-duty military personnel.

(2) Injury or occupational illness (fatal or nonfatal) to on-duty Army civilian personnel, including nonappropriated fund (NAF) employees and foreign nationals employed by the Army when the accident is incurred while performing work-related duties.

(3) Injury or illness to non-Army personnel as a result of Army operations.

(4) Soldier training related deaths not covered in paragraphs 3-5*a*(1) through 3-5*a*(3) (see glossary for definition of a training related death).

(5) Persons who are missing and/or presumed dead as the result of a potential accident will be reported as accident fatalities.

(6) Occupational injuries and illnesses reported by a contractor or subcontractor where accident reporting to the Army is contractually required.

(7) Injury or occupational illness to on-duty contractors supervised by Army personnel on a day-to-day basis.

(8) Fatal accidents involving members of the visiting public when involved in authorized recreational activities on Army facilities, installations, and properties, to include all Title 36 USACE properties.

(9) Incidents involving Army civilian personnel injured as a result of violence in the work environment will be reported to the U.S. Department of Labor in accordance with 29 CFR 1904.5.

*b. Damage to Army property.* This includes Government furnished material (GFM), or Government furnished property (GFP), or GFE provided to a contractor.

*c. Damage to public or private property.* Damage to public or private property caused by Army operations (the Army had a causal or contributing role in the accident). Note that commanders will investigate unplanned events and make the decision as to whether the event is an accident, combat loss, or some other category of loss.

### 3-6. Types of accidents

When two or more types of Army vehicles, such as an AMV and an Army combat vehicle (ACV) are involved in an accident, the type of equipment operated by the individual deemed most responsible will determine the accident type. This process is also true for other types of accidents (for example, fire, marine, and explosives) (see DA Pam 385-40).

### 3-7. Nonreportable events

The following events are not reportable through safety channels:

*a. Damage or injury as a direct result of action by an enemy force is not an Army accident. It is termed a combat loss when one or more of the following conditions exist:*

(1) Damage, loss, or injury directly caused by enemy action or sabotage.

(2) Damage, loss, or injury due to evasive action taken to avoid enemy fire.

(3) Loss of equipment in combat or failure of an individual to return from a combat mission when the last known position was in or over enemy territory.

*b. Malfunctions or failure of parts that are normally subject to fair wear and tear and have a fixed useful life less than the complete weapon system or unit of equipment are not considered accidents if the malfunction or failure is the only damage and the sole action is to replace or repair that component part. (The only exception is that all fires or fire damage involving vehicle component parts must be reported.) When a malfunction or failure of a component part results in damage to another component, this paragraph does not apply.*

*c. Damage to Army equipment or property that is planned, intended, or expected during authorized testing or intentional destruction is not considered an accident. "Planned and intended" means that the damage was specifically required to accomplish the objectives of a formally authorized test or was the desired outcome of an authorized destruction or disposal of property. This includes damage to test fixtures designed to provide protection. Any unplanned and unintended damage incurred during these operations will be reported as an accident.*

*d. Intentional, controlled jettison or release, during flight, of canopies, cargo, doors, drag chutes, hoist cable, jungle*

penetrator, hatches, life rafts, auxiliary fuel tanks, missiles, drones, rockets, nonnuclear munitions, and externally carried equipment not essential to flight. When there is no injury, no reportable damage to the aircraft or other property, and in the case of missiles, drones, or nonnuclear munitions, when the reason for jettison is not malfunction.

*e.* Property damage as a result of vandalism, riots, civil disorders, or felonious acts (such as arson). Damage to Army aircraft, vehicles, or any other property which occurs after an aircraft or vehicle has been stolen is not reportable as an accident. Damage to Army aircraft, vehicles, or any other property which occurs when an individual misappropriates an aircraft or vehicle not authorized to be flown or driven by the individual will not be reported as an accident.

*f.* Deliberate damage to aircraft or equipment or injury to aircraft or equipment occupants. Such damage and injury—

(1) Will be reported to the military police (MP) or the Criminal Investigation Command for investigation.

(2) Will also be investigated by a collateral board that will determine responsibility.

*g.* Mishaps that involve factory new production aircraft prior to the Government accepting risk of damage or loss are reported as contractor mishaps.

*h.* Accidents occurring during the transportation of Army materiel by commercial carriers.

*i.* Army equipment leased, on bailment, or loaned to contractors, commercial airlines, other Government agencies, or foreign Governments, when the lessee has assumed risk of damage or loss.

*j.* Civil aircraft owned by civil operators and accomplishing contract air missions for the Army.

*k.* Injuries associated with nonoccupational diseases, when the disease, not the injury, is the proximate cause of the lost time, such as diabetes and its resultant complications like loss of vision. Complications of the injury (such as the infection of a cut aggravated by a work-related activity) that result in lost time are reportable.

*l.* Suicide or attempted suicide, homicide, or intentionally self-inflicted injuries. For incidents involving Army civilians, see paragraph 3-5a(9), above.

*m.* Injuries resulting from altercations, attack, or assault, unless incurred in the performance of official duties (for example, MPs).

*n.* Injuries sustained before entry into military service or employment by the U.S. Government, unless specifically aggravated by current tenure of service.

*o.* Illnesses caused by specific organisms and toxins (such as food-borne disease), unless the disease is directly related to or the result of the worker's employment.

*p.* Minimum stress and strain (simple, natural, and nonviolent body positions or actions, as in dressing, sleeping, coughing, or sneezing.) These are injuries unrelated to accident producing agents or environments normally associated with active participation in daily work or recreation.

*q.* Hospitalization for treatment where the patient is retained beyond the day of admission solely for administrative reasons. Hospitalization for observation or administrative reasons not related to the immediate injury or occupational illness.

*r.* Injuries or fatalities to persons in the act of escaping from or eluding military or civilian custody or arrest.

*s.* Death due to natural causes unrelated to the work environment (see glossary for definition of a training related death as it relates to a nontraining related death due to natural causes).

*t.* Adverse reactions resulting directly from the use of drugs under the direction of competent medical authority.

*u.* Death or injury resulting solely from the use of alcohol, illegal drugs, or other substances.

*v.* Preexisting injuries and preexisting musculoskeletal disorders unless aggravated or accelerated by Federal employment.

### **3-8. Initial notification and reporting of Army accidents**

Persons involved in, or aware of, an Army accident will report it immediately to the commander or supervisor directly responsible for the operation, materiel, or persons involved.

*a. Initial notification.* The commander or supervisor who first becomes aware of any Class A or Class B Army accident or Class C Army aviation (flight, flight related, and aircraft ground or UAS) accident will, through their chain of command, immediately notify—

(1) The immediate commander or supervisor of all personnel involved.

(2) The commander, USACR/SC. The primary method for immediate notification is through the Web-based initial notification (IN) tool located on the USACR/SC Web site at <https://crc.army.mil/home>. Checklists for compiling the necessary ground or aviation accident information to complete the IN tool report are provided. The secondary method for immediate notification is by telephone (DSN 558-2660/558-3410, commercial (334) 255-2660/255-3410).

(a) At a minimum, notification will include the information on DA Form 7306 (Worksheet for Telephonic Notification of Ground Accident). Using the IN tool meets this requirement.

(b) At a minimum, notification will include the information on DA Form 7305 (Worksheet for Telephonic Notification of Aviation Accident/Incident). Using the IN tool meets this requirement.

(c) For all Class A and Class B on-duty accidents and Class C Aviation accidents, immediate notification of accidents will be followed by CAI or installation-level accident investigation (IAI).

(d) For Class A and Class B off-duty accidents, at minimum, immediate notification of the accident will be followed with an investigation.

(3) The U.S. Department of Labor. Within 8 hours after the death of any Army civilian employee from a work-related incident or the in-patient hospitalization of 3 or more civilian employees as a result of a work-related incident, an activity representative must orally report the fatality/multiple hospitalization by telephone or in person to the area office of the OSHA, U.S. Department of Labor, that is nearest to the site of the incident. The representative may also use the OSHA toll-free central telephone number, 1-800-321-OSHA (1-800-321-6742).

(4) The USACR/SC, in the event a safety-of-use, safety-of-flight, or ground precautionary message issue is identified. The accident board investigator or the commander responsible will contact the USACR/SC immediately by telephone (334-255-2660/334-3410).

*b. Reporting/incidents.* All accident reports will be submitted using the USACR/SC's online accident reporting tool (preferred method) or the appropriate forms in accordance with DA Pam 385-40 and USACR/SC's use and preparation guides.

(1) *Class A, Class B, and Class C on-duty accidents.* For all Class A, Class B, and Class C on-duty accidents, the report of investigation will be completed and submitted to USACR/SC within 90 calendar days.

(2) *Other classes of on-duty accidents/incidents.* For other classes of on-duty accidents/incidents, the report of investigation will be completed and submitted to the USACR/SC within 30 calendar days.

(3) *Off-duty accidents.* All off-duty accidents will be completed and submitted to the USACR/SC within 30 calendar days.

(4) *Safety and Occupational Health Program injury/illness log.*

(a) DA installations and/or the responsible safety office for the employees will be provided the required information necessary to meet the OSHA recordkeeping requirements (see DA Pam 385-40).

(b) Using the standards outlined in the OSH Act, DA installations and/or the safety office in the employees chain of command is responsible for ensuring that injuries and occupational illnesses to Army civilians as defined in this regulation and contractors specified in paragraph 3-5 are recorded using the appropriate Army accident reporting forms in accordance with paragraphs 3-8b(1) and 3-8b(2). Note that although a report is required, contractor accidents will not be counted as Army accidents unless one of the conditions listed in paragraph 3-3 exist. They are further responsible for maintaining an OSHA Form 300 (Log of Work-Related Injuries and Illnesses) in accordance with OSH Act standards. At the end of each calendar year, safety offices will post OSHA Form 300A (Summary of Work-Related Injuries and Illnesses), from 1 February to 30 April of the year following the year covered by the form. The senior commander or management official of the installation or activity will certify and sign the accident log annually. These records will be retained for 5 years in accordance with the OSH Act.

(5) *Contractor accidents involving Army property and personnel.*

(a) *Government contractor involvement.* If the Army administers the contract and the accident involves reportable damage to Army equipment or injury to Army personnel, the Army agency administering the contract is the convening authority. The convening authority will ensure that the accident is investigated and reported in accordance with this regulation and the terms of the contract. If the Army administers the contract and the mishap involves reportable damage or injury to another DOD agency, the Army Headquarters administering the contract will ensure all mishap information is sent to the involved agency with an information copy to USACR/SC. If another DOD agency administers the contract and the mishap involves reportable damage or injury to the Army, the Army Headquarters that owned the resources will request the contracting agency investigate and report.

(b) *Mishaps involving nonaccepted Army equipment.* The Army Headquarters that negotiates the contract for the equipment is the convening authority. The convening authority is responsible for the safety investigation and reporting, although the equipment may not be under the operational control of the Army. The loss is recorded as a mishap to the DA account.

(c) *Mishaps involving equipment bailed to a non-DOD organization.* For mishaps involving equipment bailed to a non-DOD organization for modification, maintenance, repair, test, contract training, or experimental project for a DOD component, when the Government has assumed ground and flight risk, the Army Headquarters that negotiates the contract for the materiel is the convening authority. The convening authority is responsible for the safety investigation and reporting, although the equipment may not be under the operational control of the Army. The loss is recorded as a mishap to the DA account.

(d) *Other equipment contractor mishaps.* If a mishap involves GFE or bailed equipment, or new production equipment (accepted by the Army on a DD Form 250 (Material Inspection and Receiving Report) but not delivered), the Army Headquarters of the command negotiating the contract/bailment is the convening authority unless otherwise specified in the contract/bailment agreement. In cases where contract/bailment agreements specify investigative jurisdiction, follow the terms of such agreements. In no case will a non-Army agency have safety investigation jurisdiction. Army personnel who are involved in a vehicle accident while operating a Government vehicle (tactical or nontactical) will, if possible, complete an Standard Form (SF) 91 (Motor Vehicle Accident Report) before leaving the scene of the accident. A complete SF 91 is required even if the damage to the motor vehicle is not noticeable. The operator of the vehicle will furnish copies of the completed SF 91 to military law enforcement and unit safety personnel as requested.



*c. Notification and reporting of accidents occurring in combat.* Notification to USACR/SC for all on-duty Class A, Class B, and aviation Class C accidents will be immediate. The senior tactical commander may determine that the situation, conditions, and/or time does not permit normal investigation and for accident report submission. For all other classes of accidents, notification, and reporting procedures will be in accordance with other sections of this regulation.

(1) Authority to waive normal investigation and reporting procedures for Class A and Class B accidents is delegated to the senior tactical commander at the level determined appropriate by the Army Headquarters, theater Army, or equivalent level. Whenever possible, normal investigations should be conducted on all accidents with potential Armywide impact (for example, materiel failure accidents). In cases in which normal investigation and reporting will not be performed, the report of investigation will identify that fact and the name and rank of the official who authorized the waiver.

(2) Notification will be immediate via IN tool, e-mail, message (via Defense Message System), or telephone to the USACR/SC. The notification will include as much of the information required by the telephonic worksheet as can be determined.

(3) A completed report must be submitted as soon as conditions permit, not later than 60 calendar days, and will serve as the official accident report. No follow-up is required.

### **3–9. Accountability for Army accidents**

*a.* The purpose of accountability in this regulation is to address the most likely organization to affect corrective actions. Accidents normally will be charged in the following order of precedence:

- (1) The unit or element having operational control of the equipment or facility.
- (2) The unit having operational control of the most responsible person.
- (3) The unit or organization to which the injured person(s) is assigned.

*b.* Exceptions to the above include, but are not limited to, the following:

(1) *Design-induced failure or malfunction.* An Army accident caused solely by design-induced failure or malfunction will be recorded as a “materiel” accident and will be charged to a special HQDA accident account. The unit experiencing the failure or malfunction is required to submit an equipment improvement report (EIR) or SF 368 (Product Quality Deficiency Report). A copy of the EIR/SF 368 will be submitted with each accident report that identifies a material defect as a primary/contributing or secondary/noncontributing cause factor.

*Note.* When appropriate, it is the unit commander’s responsibility to ensure that an SF 368 or EIR for Category II or message for Category I is completed and forwarded to the appropriate agency per AR 750–6, DA Pam 750–8, or DA Pam 738–751. The USACR/SC and the appropriate Army Headquarters will be information addressees on all Category I EIRs and product quality deficiency reports.

(2) *Environmental factors.* Accidents caused solely by environmental factors (for example, high winds, hail, and lightning) will be reported and recorded in ASMIS as an “environmental” accident. They will be charged to a special HQDA account unless the accident could have been avoided by command action. If the accident investigation board determines an accident could have been avoided by the command taking preventive action, the accident will be charged to the activity having operational control of the equipment or the activity to which the persons involved in the accident are assigned.

(3) *Special cases.*

(a) Accidents involving persons on temporary duty (TDY) pass, or military leave will be charged to the activity or Army Headquarters to which the person is permanently assigned. For the military, “permanently assigned” means on the Standard Installation/Division Personnel System or Military Personnel Office unit strength report. For Army civilians, it means assigned by current SF 50–B (Notification of Personnel Action).

(b) Accidents involving Army students and foreign military students on TDY, longer than 30 days at an Army school, will be charged to the school’s Army Headquarters office.

(c) Accidents involving military personnel in permanent change of station (PCS) status (with or without leave) or Army civilians in PCS status will be charged to the losing unit. The PCS status ends on the assignment order reporting date or arrival date, whichever occurs first.

(d) Accidents involving Soldiers assigned to a personnel control facility for disciplinary reasons, pending separation in which the Soldier is not under the control of the facility, or after being dropped from the unit rolls while in an absent without leave status at the time of the accident will be charged to a DA account.

*c.* If a conflict in determining accountability between Army Headquarters cannot be resolved within command channels, the commanders involved will submit a formal request for a decision to the DASAF. The request will include a summary of circumstances, statements of involved commanders, and recommendations. These actions are separate from accident investigation requirements and will not restrict or impede the investigation and reporting process. The final determination for accountability will be made by the DASAF based on—

- (1) Teardown and analysis results.
- (2) Recommendations and analysis prepared by the accident investigation board.
- (3) Analysis of the accident report.

(4) Analysis of the EIR/SF 368.

(5) Any combination of paragraphs (1) through (4), above.

d. In the event of an accident that involves two or more DOD components, each DOD component shall report its own losses.

### 3-10. Categories of accident investigation reports

The Army has two categories of safety accident investigation reports—limited use reports and general use reports.

a. *Limited Use Safety Accident Investigation Reports.* These are close hold, internal communications of DA whose “sole” purpose is prevention of subsequent DA accidents. They are required for all flight/flight related and fratricide/friendly fire accidents. They are authorized for use in certain accidents as explained in paragraph (3), below.

(1) Since much of this information is available only from persons directly or indirectly involved in the accident, a means must be provided to establish frank and open exchange of such information without fear of recrimination or other adverse action.

(2) All persons who provide information to accident investigators in this category under a promise of confidentiality may be assured that DA will use its best efforts to honor the promise if the record containing the information becomes the subject of a request under the Freedom of Information Act (FOIA) and will not voluntarily disclose this information.

(3) In addition to flight accidents and fratricide/friendly fire accidents, Limited Use Safety Accident Investigation Reports may be used for accidents involving other complex weapon systems, equipment, or military-unique items (such as ships and shipboard systems, guided missiles, laser devices, or armored vehicles), and military-unique equipment/operations/exercises when the determination of causal factors is vital to the national defense. The selection of system categories to be included in this application of Limited Use Safety Accident Investigation Reports is delegated to the commander, USACR/SC.

(4) The following restrictions are imposed on the handling of Limited Use Safety Accident Investigation Reports:

(a) Reports shall not be used, before any evaluation board, as evidence or to obtain evidence for disciplinary action, in determining the misconduct or line of duty status of any personnel, or to determine liability in administrative claims for or against the Government. In limited use investigations, witnesses may be given the option of making their statement under a promise of confidentiality if they are unwilling to make a complete statement without such a promise and the investigation board believes it is necessary to obtain a statement from a witness.

(b) To the extent permissible under the law, these reports shall not be released in their entirety to the public or any Federal agency outside of DOD. Subject to court order to the contrary, reports may not be used in any legal proceeding—civil or criminal. Department of Defense will use its best efforts to seek available appellate review of a court order to release a report. Exceptions to the foregoing are stated in paragraph (c), below.

(c) Portions of the safety investigation reports are privileged. The privileged portions include findings, recommendations, and analysis of the accident board and confidential witness interviews. Excerpts from safety investigation reports composed of purely factual material (such as date, time, location, type system, weather, maps, and transcripts of air traffic communications) may be released to other investigators and to the public subject to traditional FOIA exemptions. Only the initial denial authority, the commander, USACR/SC, may authorize release of information protected under FOIA. Transcripts of relevant portions of intracockpit voice recordings may be included in the report and released to the accident legal investigation board; however, recordings of intracockpit voice communications may only be released outside of DOD upon specific authorization of the commander, USACR/SC.

(d) The notation “Limited Use Safety Accident Investigation Report” shall be used identifying these reports.

b. *General Use Safety Accident Investigation Reports.* These are reports prepared to record data concerning all recordable DA accidents not covered by Limited Use Safety Accident Investigation Reports. These reports are intended for accident prevention purposes and will not be used for administrative or disciplinary actions within DOD. Portions of these reports that contain privileged material (such as investigative findings, analyses, and recommendations) are not generally releasable to the public, to any Federal agency outside of DOD, or within DOD except to requesters who have a need to know for the purpose of accident prevention. Witnesses will be advised that their statements may not be used for internal DOD disciplinary purposes. The information will be treated as exempt from mandatory disclosure in response to a request under the FOIA.

c. *Safety and legal accident investigation reporting.* Commanders may initiate a legal accident investigation (formerly known as a collateral investigation) to obtain and preserve all available evidence for use in subsequent administrative or legal actions. The safety accident investigation has priority over a legal accident investigation.

(1) Legal accident investigations are used to obtain and preserve all available evidence for using in litigation, claims, disciplinary action, or adverse administrative actions. They are essential for protecting the privileges afforded to accident investigation reports, as they ensure there is an alternative source of evidence for use in legal and administrative proceedings. Although nonprivileged information acquired by a safety accident investigator shall be made available to the collateral investigation, the latter is conducted independently and apart from other types of accident investigations.

(2) Safety personnel (assigned or MOS-trained) and personnel responsible for conducting accident investigations

will not conduct, review, evaluate, assist with, or maintain on file the collateral investigation. However, safety personnel can use and shall be given access to any information in a collateral legal/administrative investigation.

(3) This type of investigation will be prepared—

(a) On all Class A accidents. Note that a line of duty investigation will satisfy this requirement for off-duty fatalities.

(b) As directed by the command's staff judge advocate (SJA) or legal counsel in accordance with the claims regulation (AR 27–20).

(c) On those accidents where there is a potential claim or litigation for or against the Government or a Government contractor.

(d) On accidents with a high degree of public interest or anticipated disciplinary or adverse administrative action.

(4) A legal accident investigation may be conducted on any other accident at the direction of the commander whose personnel, equipment, or operations were involved in the accident. The investigation will usually use the procedures in AR 27–20 because most will involve potential claims. If that regulation is not applicable, the procedures in AR 15–6 for informal investigations will be followed.

### **3–11. Actions when criminal activity is determined**

a. If evidence of intentional criminal activity is discovered during the initial investigation by either MP/Criminal Investigation Division (CID) or the accident board, the board president will be notified immediately. After notification/consultation with the commander, USACR/SC and the local commander, the board president will discontinue the investigation if no further need is present. If the accident investigation does continue, it will be secondary to MP or CID investigations insofar as access to witnesses, accident scene, and evidence is concerned.

b. If, during the investigation, the board discovers evidence of intentional criminal activity (other than negligence, dereliction of duty, or disobedience of an order), the board president will provide the following to MP/CID investigators—

(1) If the evidence is physical or is a common source item, MP/CID investigators will be notified. The evidence will be surrendered to MP/CID personnel, and the board members will provide the documents necessary to establish the chain of custody.

(2) If the evidence is based upon witness statements obtained on a promise that the information would be used within DOD only for accident prevention purposes, the board president will provide a list of personnel interviewed and copies of all common source materials. The board president will not discuss individual statements or specific comments that led to the board's suspicion of criminal activity.

### **3–12. Accident Investigation Board appointing authority**

a. The commander having general court-martial jurisdiction over the installation or unit responsible for the operation, personnel, or materiel involved in an accident, or the Commander, U.S. Army Reserve Command (USARC), for U.S. Army Reserve (USAR) units assigned to USARC, or the Commander, USACE for personnel assigned to the USACE, or the appropriate state adjutant general in the case of ARNG accidents, is responsible for appointing accident investigation boards as required by this regulation. Exception to the General Court-Martial Convening Authority (GCMCA) requirement of this paragraph may only be granted by HQDA (DACs–SF) upon request.

(1) When personnel or materiel involved in an accident are from units under the command of different GCMCAs, the convening authorities concerned should agree on who will appoint the board. Their decision should be based on their relative degrees of involvement as well as considerations of administrative convenience. If an agreement cannot be reached, the decision will be made by the first general officer in both chains of command or by the respective Army Headquarters commanders.

(2) When an accident occurs away from the responsible unit's home station, the officer who would normally appoint the board may request the GCMCA for the installation closest to the accident or upon which the accident occurred to conduct the investigation. Coordination for such a transfer of authority should include specific agreement on funding the cost of the investigation.

(3) For accidents involving USAR personnel on active duty for training status, assigned or attached to a command other than USARC, the officer who exercises GCMCA over the accident site will appoint accident investigation boards.

(4) In some cases, the unit or installation that is responsible for the personnel, equipment, or operation involved in the accident may be under the command of a different Army Headquarters office than the GCMCA who would normally appoint the board. In this case, the two Army Headquarters commanders may enter into supplemental agreements that provide for a different appointing authority.

b. The appointing authority will—

(1) Appoint on orders, for Class A and Class B accidents, the president and other members of the board from units or organizations other than the accountable organization. Individuals from the accountable organization may be designated as advisers (nonvoting) to enhance the investigation and reporting of the accident.

(2) Request support from higher headquarters when investigation requirements are beyond the unit's capability.



However, USACR/SC is the sole authority for requesting outside Army, Government, and public or private agency assistance.

(3) Give priority to accident investigation and reporting duties to ensure prompt completion of accident reports. Appointing authorities will ensure that adequate clerical and administrative support is available to assist in the rapid completion of accident investigations.

(4) Ensure that no member of the board has a personal interest in the outcome of the accident investigation.

### **3–13. Types of safety accident investigation boards**

Two types of boards may be convened, either CAI or IAI. Upon notification of a Class A or Class B accident, DASAF will determine whether a CAI or IAI will be conducted.

#### *a. Centralized Accident Investigation Board.*

(1) The USACR/SC will provide the following information to the board appointing authority:

(a) Name, rank, security clearance, and social security number of USACR/SC board members.

(b) The special requirements and desired qualifications for local board members (for example, instructor pilot, flight surgeon, and vehicle technician).

(2) The board appointing authority will—

(a) Appoint a member of the local safety office to serve as POC for the board.

(b) Assure that preliminary actions required by this regulation are initiated before arrival of the USACR/SC board members. At a minimum, these actions include, but are not limited to, the following:

1. Administrative and logistical support for the investigation board. Note that CAI board members deployed into a combat zone for Army accident investigation purposes will be attached (for all administrative and logistical support) to the highest level of ACOM having responsibility for theater.

2. Funding all support costs other than travel and per diem costs of USACR/SC personnel and those other Government, public or private agency personnel specifically requested by USACR/SC to provide assistance.

3. Securing the accident scene and taking action as required by this regulation.

4. Obtaining copies of personnel, medical, and training records (to include licensing and qualification records) for all personnel directly involved in the accident.

5. Identifying and notifying local board members.

6. Publishing orders appointing an investigation board.

7. Confirming personnel security clearances as necessary and obtaining any special clearances necessary for access to the accident scene by all board members.

8. Providing logistical support to include equipment to recover wreckage and resources necessary to ship components to the appropriate Army depot or lab for teardown analysis, and arranging for special transportation such as tactical vehicles or aircraft, if required, to transport the board members to the accident scene.

9. Obtaining the following witness information: name, rank, unit, and telephone number.

10. Obtaining Serious Incident Report, MP, and CID reports, if completed.

11. Obtaining the name of the medical officer conducting autopsy and the date, time, and location it will be/was performed and results.

12. Obtaining a map that includes the accident site.

13. Obtaining directives that pertain to the operation that resulted in the accident.

14. Obtaining weather statements (signed by forecaster).

15. Providing any other data or information requested on the USACR/SC precoordination checklist sent by the board president.

#### *b. Installation-Level Accident Investigation Board.*

(1) The appointing authority will appoint on orders a board to investigate all on-duty Class A and Class B accidents and Class C aviation accidents except those investigated by the USACR/SC accident investigation boards.

(2) The appointing authority will ensure a board of any accident designated by HQDA or an Army Headquarters performs an in-depth investigation.

(3) In addition to the above requirements, the appointing authority may elect to conduct IAI (board mandatory or board optional) of any type of accident.

### **3–14. Accident Investigation Boards**

*a.* The following accidents will be investigated in accordance with DA Pam 385–40 by a board consisting of a minimum of three members:

(1) All on-duty Class A and Class B accidents.

(2) Any accident, regardless of class, that an appointing authority or the commander, USACR/SC, believes may involve a potential hazard serious enough to warrant investigation by a multimember board.

b. Class C aircraft accidents (flight, flight related, aircraft ground, or UAS) will be investigated by a board of at least one member.

c. While the following accidents do not require formal board appointment orders, they will be investigated by one or more officers, warrant officers, safety officers/noncommissioned officers (NCOs), supervisors, or DA safety and occupational health specialist/manager/engineer, in the grade of GS-018/803-9 or higher:

- (1) All off-duty military accidents.
- (2) Class C and Class D ground accidents.
- (3) All aircraft Class D, Class E, and Class F accidents/incidents.

d. When an accident involves Army property and another Service's property, a single Joint board may be convened. Board members may be from the two Services involved. Appointment of the members and identification of a senior member as president will be made by mutual agreement between the commanders of the safety centers. For uniform reporting within each Service, the board's proceedings will be recorded in the format required by each Service.

e. When an Army aircraft accident involves a civil aircraft or function of the Federal Aviation Administration, compliance will be per AR 95-30. Army aircraft accidents that involve aircraft of treaty nations will be investigated in accordance with DA Pam 385-40.

### 3-15. Board composition

a. The following personnel may serve on Army safety accident investigation boards:

- (1) Army officers or warrant officers (Army aviators for aircraft accidents).
- (2) DA safety and occupational health specialist/manager/engineer, GS-018/803-9 or higher (for aircraft accidents, one who directly manages an aviation safety program).
- (3) Full-time technicians who hold current federally recognized officer or warrant officer status.
- (4) Department of Defense medical officers or DOD-contracted medical officers (flight surgeons are preferred for aircraft accidents).
- (5) Qualified DOD maintenance personnel.
- (6) Senior NCOs when they are considered SMEs for the equipment or operation involved.
- (7) An E-5 or above who is UAS, MOS-qualified operator (qualifies for UAS safety accident investigations).
- (8) DOD weather officers.
- (9) Any other personnel approved by the commander, USACR/SC.

b. The safety accident investigation board appointing authority will be as specified in paragraph 3-12, above.

(1) Voting members will be screened to ensure they do not have an interest in the accident that may bias the outcome of the investigation.

(2) Personnel appointed as advisors are nonvoting participants. Local advisors function to enhance and expedite accident investigation and reporting. Local advisors will normally consist of the safety office POC and a POC from the organization incurring the accident. In cases where equipment involved is unique to one organization or activity at a location, technical personnel from the organization incurring the accident may be used in an advisory status at the discretion of the board president.

c. Personnel of other Services may be used as members of Army accident investigation boards; however, a participant from another Service will not be designated as president of the board. Investigation and reporting will conform to this regulation and DA Pam 385-40. If assistance is required in obtaining members from other Services, the request will be forwarded to USACR/SC.

d. For on-duty Class A and Class B accidents, individuals appointed as board members will not be from the unit that incurred the accident (that is, same battalion, company, or detachment).

(1) The president of the board will be a field grade officer (WO4/WO5 is considered field grade) or an Army civilian, familiar with the type of operation, in the grade of GS-12 or higher.

(2) One member will be appointed to act as recorder.

(3) When an accident involves any of the following, a medical officer or flight surgeon (if a flight surgeon is not available, an Army medical officer may be appointed) is required to be a board member. In the case of an on-duty Army civilian accident, a medical advisor is sufficient.

(a) Personal injuries.

(b) Issues (including injuries) associated with PPE, egress from the aircraft, medical evacuation, rescue, or survival.

(4) One member will be a qualified maintenance officer or technician if materiel is involved.

(5) One member may be a qualified weather officer if/when weather is a suspected factor.

e. Class A and Class B aviation accidents specific board requirements.

(1) *Manned aircraft accidents.*

(a) One member will be a master or senior Army aviator.

(b) One member (who could be the master or senior aviator) will be qualified in the mission, type, design, and series of the aircraft involved.

- (2) *Unmanned aircraft systems.*
- (a) One member will be an Army aviator.
- (b) One member will be a UAS, MOS-qualified operator in the grade of E-5 or higher.
- (3) For watercraft accidents, at least one board member will be an Army Marine warrant officer or a Army civilian familiar with boat operations, navigation, and boating safety.
- f. In the case of Class C aircraft accidents, when more than one individual is on the board, the president will be an Army officer, senior warrant officers (CW3 and above), a Army civilian in the grade of GS-11 or higher that directly manages an aviation safety program, or a full-time ARNG or USAR technician. In addition, a flight surgeon (if not available, an Army medical officer may be appointed) is required to be a board member when an accident involves—
- (1) Personnel injuries.
  - (2) Issues (including injuries) associated with PPE, aircraft egress, medical evacuation, rescue, or survival.
- Note.* For one-member Class C boards, the board president must be senior in grade to the aircraft crewmembers. Also, Class C UAS accidents do not require a rated Army aviator board member.
- g. Specific duties and responsibilities of board members are outlined in DA Pam 385-40.

### **3-16. Support of Army safety accident investigations**

- a. Army medical treatment facility (MTF) commanders will support accident investigations as required by accident investigation board presidents or unit investigators. This will include, but not be limited to, the following:
- (1) Evaluating human and environmental factors that contributed to the accident.
  - (2) Providing medical, dental, and medical service corps personnel such as flight surgeons, radiologists, pathologists, dentists, industrial hygienists, and psychiatrist to serve as members or advisors to accident investigation boards.
  - (3) Performing biochemical testing of personnel involved in or contributing to all Class A, Class B, or Class C aviation accidents, or when deemed appropriate by the commander or physician (consult with the Armed Forces Institute of Pathology (AFIP), commercial (301) 319-0000, DSN 285-0000). Biochemical testing is required for all crewmembers and any other personnel who may have contributed to a Class A, B, or C aviation or on-duty ground Class A or Class B accidents.
  - (4) Performing physical examinations of surviving accident victims (per AR 40-501).
  - (5) Performing autopsies on the remains of aircrew members are mandatory (per AR 40-21). In other cases, the Armed Forces medical examiner may authorize an autopsy in accordance with AR 40-57. This may be done where the Federal Government has exclusive jurisdictional authority and where the circumstances surrounding the death are suspicious, unexpected, or unexplained. This includes unnatural or violent deaths resulting from a known or suspected accident; that is, deaths specifically resulting from vehicular, aircraft, vessel, or other aviation/ground accidents. Additionally, pursuant to AR 40-400, the Army MTF commander may direct an autopsy when it is considered necessary for protecting the welfare of the military community to determine the true cause of death or to secure information for completing military records. In cases where the accident investigation board concludes that an autopsy is necessary, consistent with the above guidelines, the commander, USACR/SC, will consult with the MTF commander nearest to the scene of the accident or where the body is located. In other cases, consent of the next of kin is required in accordance with AR 40-400.
- (a) When possible, autopsies should be performed by AFIP.
- (b) If AFIP personnel cannot perform an autopsy, it will be performed by personnel in the following order of precedence:
1. Military forensic pathologist.
  2. Army pathologist or civilian forensic pathologist.
- (c) The individual conducting the autopsy will consult with the Armed Forces medical examiner, AFIP, by calling commercial (301) 319-0000, DSN 285-0000.
- (6) Assisting in obtaining results of autopsies conducted by civilian authorities.
  - (7) Conducting detailed external examinations (to include photographs) and full body X-ray examinations. Samples of blood, urine, and other body fluids of deceased accident victims will be obtained for laboratory testing when permission for an autopsy is refused.
  - (8) Providing admittance and disposition sheets to local safety offices.
- b. The Army Provost Marshal Office will support investigations, to include liaison with local law enforcement as required. This support will include providing accident information from DA Form 3946 (Military Police Traffic Accident Report) and daily blotters.
- c. All installation organizations (for example, the Director of Industrial Operations and the Director of Engineering and Housing) will support accident investigations as required.

### **3-17. Review of accident investigation reports**

All accident investigation reports will be processed by each reviewing agency.

- a. *Initial review.* The initial reviewing official will normally be the commander of the unit involved or the

commander of the supervisor directly responsible for the operation, material, or persons involved in the accident. This official will review the accident report, provide written concurrence or nonconcurrence with the findings/recommendations, ensure that factual data are circulated within the unit, ensure recommendations that can be put into effect at the unit level are implemented, and forward the original through the designated chain of command to the Army Headquarters reviewing authority.

*b. Installation-level safety manager review.* The installation-level safety manager or their equivalent when an installation safety office does not exist will ensure that the entire accident report is prepared per instructions, and accident data are analyzed for prevention purposes.

*c. Army Headquarters approving authority.* Army Headquarters commanders or their designated representatives will provide written concurrence or nonconcurrence for each finding and recommendation made by the accident investigation board (Class A, Class B, and Class C aviation accidents). The Army Headquarters safety office will ensure that the accident report is complete and take additional actions when required.

### **3-18. Reports prepared by the U.S. Army Combat Readiness Center**

Reports prepared by USACR/SC will be completed within 90 calendar days and returned through the unit chain of command. The original and one copy of the report will be forwarded to the unit experiencing the accident; another copy will be forwarded directly to the appropriate Army Headquarters. Commanders will review the original report, concur or nonconcur in writing, and return the report through channels to the Army Headquarters. The Army Headquarters office will ensure the original copy of the report is returned to USACR/SC within 90 calendar days from the date of the USACR/SC letter of transmittal.

### **3-19. Processing accident reports**

Prepare one original and two copies of the appropriate forms and supporting documents. Send ARNG accident reports through Army National Guard Reserve Component (NGB-AVN-S), 111 South George Mason Drive, Arlington, VA 22204-1382, to the commander, USACR/SC.

*a.* For all on-duty Class A and Class B accidents, forward the original report through channels to the appointing authority's Army Headquarters and mail to Commander, U.S. Army Combat Readiness Center (CSSC-SDA), Fort Rucker, AL 36362-5363.

*b.* For all other accidents, submit the original or electronic copy of the report to the Commander, U.S. Army Combat Readiness Center (CSSC-SDA), Fort Rucker, AL 36362-5363.

*c.* Copies will be retained by the appointing authority's safety office and any other offices as directed by the Army Headquarters.

### **3-20. Changes to accident reports and request for extension of submission time limits**

*a.* A change to an accident report will be submitted when—

(1) An event occurs that changes the classification of an accident (for example, from Class C to Class B or from Class B to Class A).

(2) Additional information is discovered that was not known when the initial report was submitted. Changes to reports will not be submitted for changes in number of days lost or property damage estimates, except as indicated in 3-20a(1), above.

*b.* When requesting a downgrade change (that is, Class A to Class B) supporting documentation such as an actual cost of damages/estimated cost of damages is required.

*c.* Requests for extension beyond the accident report due date will be made telephonically or via e-mail to the Administrative Quality Control Section, USACR/SC (commercial (334) 255-2325/255-2347, DSN 558-2325/558-2347), by the Army Headquarters Safety Office.

### **3-21. Headquarters, Department of the Army accident report evaluation, review, and action**

*a.* The USACR/SC will review all accident reports for regulatory and technical compliance.

*b.* The USACR/SC will evaluate all DOD and DA-level recommendations for entry into the recommendation and tracking system. The USACR/SC will—

(1) Establish and maintain a formal automated system to track actions on DA-level recommendations from accident reports.

(2) Provide written notification to the command, organizations, or agency responsible for implementing or initiating corrective action on DA-level accident recommendations.

*c.* Army Headquarters, PEOs, and DA staff agencies and activities will—

(1) Establish and maintain a formal system to track actions taken on DA-level recommendations from accident reports for which they are responsible.

(2) Establish and maintain a formal system to track actions taken on unit level and higher level recommendations from Class A, Class B, and Class C accident reports for units, organizations, agencies, or activities under their respective command or control.

*d.* Upon receipt of written notification of recommendations, the responsible DA-level organization will provide telephonic acknowledgement within 5 working days and an initial response to the USACR/SC within 60 calendar days as to corrective action initiated or planned. Interim and follow-up reports are required every 90 days after initial response until the action is closed.

*e.* All DA-level recommendations not accepted or implemented by the responsible command, organization, agency, or activity will be returned to the commander, USACR/SC, with support rationale within 60 calendar days after the date on the letter of transmittal.

### **3-22. Maintaining accident records**

All accident report records required by this regulation and maintained by USACR/SC will be retained at least 10 years. For other organizations, maintain records of accident investigations to include the current fiscal year and the previous 5 fiscal years.

### **3-23. Deviations**

Occasionally, the safety accident reporting requirements of this regulation may be incompatible with mission accomplishment. In such cases, Army Headquarters commanders may request deviation from the specific requirements from Office of the Director of Army Safety (DACS-SF), 200 Army Pentagon, Washington, DC 20310-0200.

### **3-24. Scene preservation**

A concerted effort is required by Army Headquarters commanders to ensure that each group of investigators is able to collect the information and evidence required to properly conduct its investigation.

*a.* When the situation permits preservation of the accident scene, only those actions necessary for rescue or recovery of victims and the initial on-site investigation by MP/CID will be allowed. Whenever possible, photographs of the location of victims should be made before the victims are moved. Access will be restricted to those commanders and personnel directly involved in investigating the accident. Before the accident investigation board arrives at the accident site, MP/CID personnel should remove only those items of evidence that would otherwise be destroyed by time or the elements. During the on-site investigation, the safety board will be accompanied by MP/CID personnel who know the nature and location of the evidence removed prior to the board's investigation. Personnel who directed the rescue operations and who can discuss damage to or movement of wreckage that occurred during the rescue operation should also assist the board.

*b.* When the situation does not permit preservation of the accident scene, MP/CID personnel will remove all items of evidence needed for their investigation. Photographs of items before they are collected will be made whenever possible. All components, wreckage, and debris that must be moved will be stored in a secure area and guarded when necessary until released by the board president. Personnel involved in the recovery operation and knowledgeable of the resulting damage to the wreckage will be available during the accident investigation board's preliminary inspection of the wreckage. The appointing authority will ensure that photos are taken and a sketch of the scene is made with sufficient detail and measurements to allow a scale drawing to be made. All wreckage, damage, and ground markings incident to the accident will be identified and photographed before measurement and cleanup of the accident scene. The sketch and photographs will be provided to the president of the board as soon as possible after his or her arrival.

*c.* The accident investigation board will be allowed to inspect physical evidence collected by MP/CID personnel. The board president is responsible for ensuring that no member of the board takes any action that would destroy the evidence or would compromise the legal chain of custody of those items.

### **3-25. Accident scene investigation**

Procedures for accident scene investigation are contained in DA Pam 385-40 and the USACR/SC handbook.

### **3-26. Access to information from other investigations**

The accident investigation board will have access to all evidence, photographs, and witness statements collected by MP/CID investigators. The accident investigation board will also have access to all personnel and medical records of personnel involved in the accident and maintenance records on the equipment involved in the accident. If evidence is forwarded to CID laboratories for analysis, the board president will be provided a copy of the laboratory report. Whenever possible, CID personnel will advise the board president of laboratory determinations that may be received from the laboratory by telephone. The board president may determine that additional information is necessary for the investigation. When this occurs, the board president will request additional analysis by the laboratory. The results of the additional testing are considered common source factual data available for use by all investigators, unless it clearly reveals the board deliberative process.

### **3-27. Access to information collected by accident investigation boards**

*a.* Other Army authorized investigators will be given access to—

- (1) Reports received pursuant to submission of equipment to Army depots for teardown and analysis.
- (2) Command directed fitness-for-duty examinations.



- (3) Official records on personnel and equipment involved.
  - (4) Photographs of the accident scene.
  - (5) Witness lists.
  - (6) Transcripts of relevant portions of intracockpit voice recordings.
- b.* Other investigators will not be given access to—
- (1) Witness statements taken by board members.
  - (2) Preliminary or final board findings and recommendations.
  - (3) Voice recordings of intracockpit communications without authorization of the Initial Denial Authority, Commander, USACR/SC.
- c.* For all classes of accidents, where applicable, the accident investigation officer or the president of a board of officers will—

- (1) Obtain the name and unit address of the collateral investigation officer or board president.
- (2) Provide the collateral investigation officer or board president with all factual material requested.

*d.* Paragraph 3–27*b*, above, is punitive. Violations of paragraph 3–27*b* are separately punishable as a violation of a lawful general regulation under Article 92, Uniform Code of Military Justice (UCMJ, Art. 92). Penalties for violating this paragraph include the full range of statutory and regulatory sanctions—both criminal and administrative. Violations by Army civilian employees may result in administrative disciplinary actions without regard to otherwise applicable criminal or civil sanctions for violations of related laws.

### **3–28. Accident information**

*a.* Safety accident investigation reports are official documents. They will be used solely for accident prevention purposes. These reports and their attachments, or copies and extracts, will not be enclosed in any other report or document unless the sole purpose of the other report or document is accident prevention. Common-source documents, photographs, and those documents (other than witness statements) containing purely factual information that is available to other Army authorized investigations are an exception to this rule.

*b.* Safety accident reports and the privileged documents contained therein may not be used as evidence or to obtain evidence in any disciplinary, administrative, or legal action such as the following:

- (1) Determining or defending the determination of misconduct or line-of-duty status of Army personnel.
- (2) Flight evaluation boards or MOS reclassification actions.
- (3) Determining liability in claims for or against the Government.
- (4) Determining pecuniary liability.
- (5) Any other adverse personnel action.

*c.* Paragraph 3–28*b*, above, is punitive. Violations of paragraph 3–28*b* are separately punishable as a violation of a lawful general regulation under UCMJ, Art. 92. Penalties for violating this paragraph include the full range of statutory and regulatory sanctions—both criminal and administrative. Violations by Army civilian employees may result in administrative disciplinary actions without regard to otherwise applicable criminal or civil sanctions for violations of related laws.

### **3–29. Release of information from Safety Accident Investigation Reports**

*a.* All requests under the provisions of the FOIA for information from, or copies of, Class A, Class B, or Class C safety accident investigation reports will be referred through command channels to the Commander, U.S. Army Combat Readiness/Safety Center (CSSC–ZS), Fort Rucker, AL 36362–5363. The USACR/SC is the repository for Class A, Class B, Class C, Class D, Class E safety accident reports, and Class E and Class F incident reports. The USACR/SC commander has been delegated authority to act as the initial denial authority on requests for information from Army safety accident reports.

*b.* The commander, USACR/SC is designated by the SA to assert the privilege to oppose any court-ordered release of privileged safety information for all investigations.

*c.* Local safety offices are authorized to release Class D and Class E general use safety accident reports in their entirety in response to FOIA requests after consulting with their SJA or legal advisor to ensure that complete disclosure would not be in violation of the FOIA. Local offices wanting to withhold portions of a Class D and Class E general use safety accident report must refer the action to USACR/SC at the address listed in 3–29*a*, above.

*d.* Requests received directly from members of Congress or their staffs for access to accident reports will be referred to Headquarters, Department of the Army, Office of the Chief of Legislative Liaison, 1600 Army Pentagon, Washington, DC 20310–0107. That office will then relay the request to USACR/SC or the appropriate local safety office in accordance with the guidance in paragraphs *b* and *c*, above.

*e.* Requests from non-DOD Federal agencies for access to reports are governed by other provisions of this regulation and, in many instances, by interagency agreements or specific regulations. (For example, AR 95–30 governs the release of information to the Federal Aviation Administration.) Command and installation safety offices that receive such



requests will contact their local SJA or legal advisor or the USACR/SC command judge advocate (DSN 558–2924 or commercial (334) 255–2924) for guidance.

f. Subpoenas for the production of accident reports or for the testimony of accident investigators will be referred to the recipient's legal advisor or SJA for action required by AR 27–40 in consultation with the USACR/SC command judge advocate.

g. Requests for access to accident reports from other staff sections and DOD organizations and commands are governed by the restrictions in this paragraph. The procedures below will be followed in response to these requests.

(1) The requester must state the reason the information is needed and the purpose for which it will be used. If the requester's purpose is not solely for accident prevention and a collateral investigation was conducted, the requester will state the reason the collateral investigation will not satisfy the requester's need.

(2) If the requester's sole purpose for requesting the report is accident prevention, the entire report may be released with a warning that further disclosure by the requester is not authorized.

(3) If the requester intends to use the information for any purpose other than accident prevention, only common source data, the names of witnesses, photographs, diagrams, and the results of scientific or technical tests will be disclosed. The following information will not be released:

(a) The report's findings, recommendations, and the investigator's analysis.

(b) The content of witness statements, both confidential and nonconfidential, if they were obtained on a promise they would not be used for purposes other than accident prevention.

(c) Medical records unless they meet the requirements of AR 40–66.

h. In addition to OSHA reporting forms, a copy of the nonprivileged portions of safety accident investigation reports in which a Army civilian employee is injured or property is damaged in a Army civilian employee work area may be provided to the exclusive representative of the employee involved and to the appropriate safety and health committee, if requested. This information is provided for purposes of safety/accident prevention only.

i. Paragraph 3–29g(3), above, is punitive. Violations of paragraph 3–29g(3) are separately punishable as a violation of a lawful general regulation under UCMJ, Art. 92. Penalties for violating this paragraph include the full range of statutory and regulatory sanctions—both criminal and administrative. Violations by Army civilian employees may result in administrative disciplinary actions without regard to otherwise applicable criminal or civil sanctions for violations of related laws.

### 3–30. Special reporting requirements

Accident investigation and reporting requirements for marine, chemical agent, explosives, ionizing and nonionizing radiation, nuclear weapon and reactor accidents, and biological defense mishaps are addressed in DA Pam 385–40.

### 3–31. Costing

Computations for accident costs will be accomplished in accordance with DA Pam 385–40.

### 3–32. Injury and accident rates

These rates include recordable injuries and/or accidents with property damage meeting the reporting criteria. To convert the rates obtained in the following formulas (except aviation) to an annual rate for comparison of any time period, multiply the rate obtained by 12 and then divide by the number of months covered.

a. *Injury rates.*

(1) *Active Army military injury rate.* The active Army injury rate is based on the total number of recordable injuries for each 1,000 personnel during a specified period. Injury rates are computed using the following formula: injuries times 1,000, divided by personnel strength.

(2) *U.S. Army Reserve and Army National Guard military injury rates.* The USAR and ARNG military injury rates are the total number of recordable injuries for each 1,000 personnel during a specified period. Injury rates are computed using the following procedure:

(a) Compute prorated strengths by subtracting the active guard reserve (AGR) and mobilized population from the Selected Reserve strength, multiplying the result by 0.1068, and then adding this last result to the AGR and mobilized population.

(b) Multiply the number of injuries over a specified time period by 1,000 and divide by the prorated strength as computed in the paragraph above.

(3) *Army civilian employee injury rate.* The Army civilian employee injury rate is the total number of recordable injuries per 100 civilian personnel during a specific period of time. Rates are computed using the following formula: number of fatalities/lost-time injuries multiplied by 100, divided by the Army civilian strength.

b. *Accident rates.*

(1) *Army ground accident rate.* This rate is the total number of Army ground accidents for each 1,000 personnel over a specific time period. Rates are computed using the following formulas:

(a) *Active Army ground accident rate.* Number of accidents multiplied by 1,000 divided by personnel strength.

(b) *U.S. Army Reserve and Army National Guard ground accident rate.* Number of accidents times 1,000, divided by prorated personnel strength.

(2) *Army aircraft accident rate.* The rates for Army rotary wing and fixed wing, and other types of Army aircraft will be computed on the number of aircraft accidents per 100,000 aircraft flight hours. These rates will include flight accidents only.

c. *On-duty and/or off-duty injury and accident rates.* These rates are computed by multiplying the on-duty and/or off-duty number of injuries/accidents by 1,000 and dividing by the respective active Army or prorated USAR/ARNG personnel strengths.

## Chapter 4 Contracting Safety

### 4-1. Introduction

a. This chapter prescribes DA policy for integrating safety into the contracting process.

b. DA Pam 385-10 contains technical requirements and processes for contract safety management, oversight, and control processes.

### 4-2. Policy

a. Contract activities will be conducted in a safe and healthful manner that minimizes accidents as well as impacts on Army operations and members of the public. Contractors must comply with applicable Federal, State, and local codes and standards, including safety and occupational health requirements, as well as any additional specific requirements invoked by the contract.

b. Army safety and occupational health professionals will be trained in contracting principles and procedures and contract safety requirements and processes (see DA Pam 385-10).

c. In general, the requirements in this regulation do not apply to contractor personnel. Army standards, such as this regulation, should not be referenced as a contract requirement unless the contractor is hired to perform safety and occupational health services for Army employees.

d. In accordance with DODI 6055.1, Army safety and health responsibilities in contractor plants and contractor operations on Army property are generally limited to helping to ensure the safety of government-owned equipment, protection of the production base, protection of government property and on-site Army personnel from accidental losses, and the protection of the public. Contractors are responsible for the safety and health of their employees and protection of the public at contractor plants and work sites.

e. Clauses outlining contractor safety requirements and responsibilities will be included in solicitations and contracts as prescribed by the FAR, the Defense Federal Acquisition Regulation Supplement (DFARS), and the Engineer Federal Acquisition Regulation Supplement (EFARS). See DA Pam 385-10, chapter 4.

f. In addition to clauses as required by FAR, DFARS, and EFARS, activities will develop performance work statements and contract instructions and conditions that outline contractor safety requirements and responsibilities based on a risk assessment of the work to be performed and activity/command unique requirements. Contracting officer representatives (CORs), requiring activity, or Defense Contract Management Agency, in consultation with local safety and occupational health SMEs, will develop additional and necessary clauses to mitigate risk. Note that the only means for imposing safety and occupational health requirements on a contractor or subcontractor is by incorporating the requirement as a contractual requirement (for example, a contract clause, special clause, statement of work, guide specification, or contract modification).

g. Under the OSH Act, all employers must comply with OSHA standards and must exercise reasonable diligence to determine whether violations of those standards exist. On multiemployer work sites, more than one employer may be considered responsible for a hazardous condition that violates an OSHA standard.

h. Contracting officers will consult with safety and occupational health SMEs to ensure that clauses for safety are included in solicitations and contracts as appropriate and necessary. Safety and occupational health SMEs will assist CORs with monitoring contract safety and occupational health compliance.

i. When contractor mishap reporting is a contract requirement, such mishaps will be reported as outlined in chapter 3 of this regulation as well as DA Pam 385-40. In addition, the following will be reported:

- (1) Injury or occupational illness to on-duty contractors.
- (2) Damage to GFM, GFP, or GFE provided to a contractor.
- (3) Contractor accidents involving Army property and personnel.

j. The COR shall inform the local occupational safety and health office of instances where the contractor has been notified to take immediate action to correct serious or imminent danger conditions.

### 4-3. Army oversight and inspections of contractor operations

*a. Army oversight of contractor operations.* Army oversight of contractor operations is restricted to the following instances:

- (1) Where Army has statutory authority for oversight, such as the manufacture of ammunition.
- (2) Where it is in the best interest of the Army. (Army oversight has historically contributed to lower accident rates among certain contractor employees, on-time delivery of products and services (increased readiness), and ultimate savings to the Government.)

*b. Occupational Safety and Health Administration inspections.* Army contractors operating from Army or privately owned facilities, located on or off Army installations, are "employers" as defined in 29 USC 651 and those that follow and are subject to enforcement authority by Federal and State safety and health officials as stated in the following:

(1) Federal and State OSHA officials must be granted access to DOD contractor workplaces on DOD installations without delay and at reasonable times.

(2) 29 USC 651 does not authorize the Secretary of Labor to assert authority over working conditions for which another Federal agency or any State agency acting under 42 USC exercises statutory authority to prescribe or enforce standards or regulations affecting OSH.

(3) Pursuant to 33 USC 941, when contractor work is performed aboard vessels in dry dock or afloat within Federal maritime jurisdiction, Federal OSHA standards apply and inspections and investigations may be performed by Federal OSHA officials.

(4) Army contractors have the responsibility of responding to any citations issued by Federal or State OSHA officials for violations of applicable standards.

(5) Full information regarding citations issued to Army contractors for violations of Federal or State OSHA standards involving Army-furnished equipment, facilities, or other property shall be referred to all appropriate personnel, to include COR and contracting officer, for appropriate action.

*c. Requirements for host nation inspections of OCONUS contracts.*

(1) Host nation officials must be granted access to Army contractor workplaces on Army installations without delay and at reasonable times.

(2) Army contractors have the responsibility of responding to any citations issued by HN officials for violations of applicable standards.

(3) Full information regarding citations issued to Army contractors for violations of HN requirements involving Army-furnished equipment, facilities, or other property shall be referred to all appropriate personnel, to include COR and contracting officer, for appropriate action.

*d. Inspection of contract activities.*

(1) In peacetime operations performed in CONUS or its territories or possessions, the contractor is responsible directly to Federal or State OSHA for the safety and health of contractors' employees.

(2) The Army shall conduct safety and health evaluations of all workplaces and operations where Army personnel are regularly employed at fixed installations during peacetime operations, and, to the extent feasible, to wartime and peacekeeping operations. Inspections of workplaces and operations on contractor facilities where fewer than 25 Army personnel are employed shall be at the Army Headquarter's discretion based on existing conditions and potential risks. While no formal annual inspection is required, the Army is required to ensure the safety and health of their personnel in the contractor facility. In addition, evaluations shall include determining if contractor operations jeopardize the safety and health of Army personnel and endanger Army property.

(3) Risk assessments and dosimetry of environmental and occupational chemical, radiological, biological, and physical hazards to Army personnel and supporting Army contractor personnel during OCONUS force deployments and construction of prospective health surveillance epidemiology databases shall be accomplished under DODI 6050.5 and DODI 6490.3. Toxic hazards to which Army personnel and contractors are exposed during wartime and other contingency operations should cover all aspects of the potential hazard—from the source and levels of exposure to health effects of individuals and groups.

(4) In peacetime CONUS operations, Army safety and occupational health programs will not perform any measurements; that is, perform worker exposure monitoring of contractor worker exposure to Army equipment, unless specifically provided for in contracts between the Government and the contractor.

### 4-4. Additional references to contract safety and health requirements

See the following sections of this regulation for additional references to contract safety and health requirements:

- a.* Chapter 5, Explosives Safety Management
- b.* Chapter 7, Radiation Safety Management
- c.* Chapter 9, System Safety Management
- d.* Chapter 11, Motor Vehicle Accident Prevention
- e.* Chapter 15, Aviation Safety Management
- f.* Chapter 17, Workplace Inspections

- g. Chapter 20, Biological Safety
- h. Chapter 21, Chemical Agent Safety Management

## Chapter 5 Explosives Safety Management

### 5-1. Introduction

- a. This chapter provides minimum explosives safety policy for commanders with an ammunition and/or explosives mission to protect personnel.
- b. The explosives safety standards prescribed in DA Pam 385-64 will be used together with this chapter.
- c. Explosives storage and handling must conform with DOD and Army standards for explosives safety unless the use of other criteria such as those of the North Atlantic Treaty Organization or a HN has been agreed to or are mandatory. A copy of all agreements will be made a permanent part of the real property records.
- d. This chapter applies to activities and organizations with missions involving A&E and applies during peacetime, wartime, contingency operations, training, exercises, military munitions responses, and RDT&E (refer to AR 385-63 for guidance specific to live fire training and training ranges).

### 5-2. Policy

Consistent with peacetime, contingency, or wartime operational requirements and corresponding DOD military munitions requirements, it is Army policy to—

- a. Provide the maximum possible protection to people and property from the potential damaging effects of DOD military munitions.
- b. Comply with DA Pam 385-64 and, when outside the United States, comply with HN, multinational, or U.S. explosives safety standards, whichever are more stringent unless standards applicability is mandated by international agreement.
- c. Utilize quantitative risk-based explosives safety assessment tools and criteria as decisionmaking aids.
- d. Minimize exposures consistent with safe and efficient operations (that is, expose the minimum number of people for the minimum time to the minimum amount of explosives).
- e. Enhance readiness and mission capability by providing for explosive safety management considerations throughout the military munitions life cycle.
- f. Implement and maintain effective ESMP.
- g. Prohibit the disposal (for example, burying and dumping) of DOD military munitions on land or in water except when specifically authorized by the SA or his or her designee. This prohibition does not preclude covering munitions with earth to control fragments and noise during authorized testing or destruction by detonation, or the use of in-situ capping, when implemented as an engineered remedy under an authorized munitions response action.
- h. Give precedence to explosive safety management principles and requirements that provide for immediate protection of people and property while complying with applicable environmental regulations.
- i. Conduct appropriate munitions response actions on Army real property that are known or suspected to contain military munitions and explosives of concern, according to appropriate environmental law, including 10 USC 2700-2710, 42 USC 9601 and those that follow, 40 CFR 300, and applicable DOD and Army regulations and policy, using the most appropriate technology or other types of response actions to ensure the protection of public safety, health, and the environment consistent with the current land use or reasonably foreseeable future use of the property.

### 5-3. Explosives Safety Management Program

The ESMPs will implement and comply with this chapter and DA Pam 385-64. The ESMPs will—

- a. Address organization and staffing, site planning, facilities conformance, emergency response, tenants, master planning, ranges, contractors, accident prevention program, facility maintenance, demilitarization/destruction, CRM, explosives safety issuances, records management, inspections/evaluations/audits, and training.
- b. Identify the safety responsibilities of all organizations (including tenants that will be covered by a memorandum of agreement) with A&E missions and functions (for example, research, testing, manufacturing, transportation, storage, and demilitarization).
- c. Define safety office direct access to commander and lines of communication and reporting between the safety office and other organizations with an explosives safety function.
- d. Prescribe responsibilities and procedures for knowledgeable and qualified personnel to develop, coordinate, review, and approve site plans, safety submissions, and facility designs.
- e. Prescribe responsibilities, requirements, and procedures that ensure qualified personnel develop, coordinate, review, and approve explosives safety waiver and exemption requests for facilities and equipment, as delineated in DA Pam 385-30, and provide the commander with essential risk data regarding the deficient situation.

- f. Charter and prescribe responsibilities, composition, and procedures for local explosives safety council.
- g. Prescribe processes for operational continuity (for example, SOPs and routine facility maintenance).
- h. Prescribe responsibilities, requirements, and procedures for conducting audits/surveys to assess ESMP compliance with this regulation and to assess compliance of A&E activities with DA Pam 385–64, including tracking and follow-up of required corrective actions.
- i. Prescribe responsibilities, requirements, and procedures for the investigation, reporting, and analysis of A&E mishaps.

#### **5–4. Explosives Safety Management Program leadership and support responsibilities**

In addition to the general Army Safety Program responsibilities delineated in paragraph 1–5 of this regulation—

- a. Army leaders of organizations with A&E missions and functions (for example, research, testing, manufacturing, transportation, storage, and demilitarization) will maintain cognizance of the posture of their ESMP as well as all explosives safety deviations with MEDIUM or higher residual risk level and duration greater than 60 days.
- b. Safety directors of organizations with an A&E mission will—
  - (1) Establish, manage, and direct the organization’s ESMP in accordance with the requirements of this regulation and DA Pam 385–30, DA Pam 385–64, DA Pam 385–65, and other policies and standards the command deems necessary.
  - (2) Serve as the primary POC for all ESMP-related actions, coordinating with other agencies as necessary to maximize awareness as well as stakeholder and SME input.
  - (3) Keep leadership informed of the organization’s ESMP posture and A&E safety issues.
  - (4) Ensure explosives safety deviations are accurate and kept current. When the organization’s leadership transitions, ensure that the incoming leadership is informed of and renews explosives safety risk acceptance.
  - (5) Ensure A&E mishaps are properly reported, investigated, and analyzed.
  - (6) Ensure explosives safety training requirements are properly identified, resourced, and complied with.
  - (7) Conduct periodic evaluations to ensure the effectiveness of the organization’s ESMP.
- c. Quality assurance specialists—ammunition surveillance will be an integral component of the ESMP and will provide technical assistance to the organization safety office, as delineated in DA Pam 385–64.
- d. Ammunition warrant officers will be an integral component of the ESMP and will provide support to the organization safety office as well as leadership to tactical units.

#### **5–5. Standards compliance**

The A&E safety standards are designed to protect against serious injury, loss of life, and damage to property, but they are not intended to be so rigid as to prevent the Army from accomplishing its assigned mission. When deviating from this regulation or DA Pam 385–64, the proper authority must weigh the added risk to personnel and property against the strategic and other compelling reasons that necessitate such deviations.

- a. *New construction.* When building or performing a major modification on a structure (greater than 15 percent of current value) that violates or will violate the provisions of this regulation or DA Pam 385–64, the commander must certify such projects are essential due to operational necessity or other compelling reasons and obtain written authority—a CCR from the appropriate level of command.
- b. *Existing facilities.* When an existing facility violates the provisions of this regulation or DA Pam 385–64, waivers, exemptions, and CCRs will be executed and the risk will be accepted at the appropriate level of command.
- c. Where operations violate the provisions of this regulation or DA Pam 385–64, a CORA will be completed in accordance with DA Pam 385–30.

#### **5–6. Explosives safety site plans**

- a. *New facilities and construction.* Site plans are required for construction of new explosives facilities and for the construction of any facility within the explosives arc of an existing explosives facility.
- b. *Increased level of risk.* Site plans are required when the use or remodeling of the facility increases the level of risk associated with the facility. Site plans are not required for remodeling or changes in use when associated with similar or a lower level of risk.
- c. *Site plan submission.*
  - (1) By 1 October 2011, all site plans will be submitted electronically using ODASAF-approved software.
  - (2) The unit or organization responsible for operating the explosive site will request that the installation or garrison safety office initiate the site plan and will provide all necessary information to the installation/garrison safety office for the site plan development and coordination.
  - (3) The installation or garrison safety office will—
    - (a) Develop, coordinate, and submit explosive safety site plans in accordance with DA Pam 385–61, DA Pam 385–64, and DA Pam 385–65.
    - (b) Develop and coordinate the site plan with installation master planning or facility engineers, affected operating



units, logistics, quality assurance specialists—ammunition surveillance, fire departments, security, and environmental and health agencies.

(c) Forward site plans through the chain of command to USATCES and, at a minimum, copy furnish the unit or organization responsible for the operation.

(4) While the installation/garrison safety office is generally responsible for site plan development and coordination, in some circumstances a tenant or other organization may assume those responsibilities. Local agreements can dictate deviations in site plan responsibilities as long as all affected organizations are consulted and agree.

(5) For off-installation locations, the organization with operational control—in coordination with the user if different than the operator—will develop, coordinate, and submit explosives safety site plans per DA Pam 385–61, DA Pam 385–64, and DA Pam 385–65.

*d. Other Service's acceptance of risk.* When the explosives arcs from a proposed Army potential explosive site expose the equipment or facilities of another Service to risk, that Service's acceptance of risk, must be enclosed in the site plan package. The developing unit's chain of command will obtain acceptance of risk from the other Service's equivalent level of command based upon the level of risk involved. The USATCES will accomplish final Army coordination with the other Service's headquarters when the level of risk requires.

(1) The reviewing chain of command will—

(a) Indicate specifically in the letter of transmittal its approval of the proposal, along with changes, modifications, or specific precautionary measures considered necessary.

(b) Submit correspondence and site plans in duplicate to the Director, USATCES.

(2) Notification of DDESB approval on properly prepared and submitted routine plans can be expected within 90 days. The ACOM, ASCC, DRU, and NGB must provide the following information to request priority reviews and approval:

(a) The date the reply is required.

(b) The proposed contract award date.

(c) The reason the priority action is needed.

*e. Explosives facilities built before January 1958.* Submission of a site plan for explosive facilities built before January 1958 is not required if the facility is used for the same purpose as originally constructed, the level of hazard associated with the facility's operations has not increased, and newer facilities have not impacted the original siting. Documentation of the facilities must be permanently recorded in the installation master plan or similar files. At a minimum, the permanent documentation must contain—

(1) The date of construction.

(2) The effective date of the application standards under which the facility was originally constructed.

(3) The original use information.

(4) The date the facility was either approved for use or was first used as an A&E facility.

## **5–7. Explosives licensing policy**

*a.* All explosives facilities will be operated in accordance with the requirements of Department of Defense Directive (DODD) 6055.9E and DA Pam 385–64 or contracting safety requirements.

*b.* Facilities that cannot meet A&E safety standards will not be licensed unless covered by an approved waiver, exemption, or CCR.

*c.* Installation and unit commanders will ensure that A&E are stored only in licensed locations. Quantities will not exceed the amounts authorized on the license.

*d.* Explosives licenses shall be developed and formatted in accordance with DA Pam 385–64.

## **5–8. Ammunition and explosives safety surveys**

*a.* The Army Logistics Review and Technical Assistance Office (LRTAO) located at the U.S. Army Defense Ammunition Center conducts surveys of ammunition logistics and A&E safety. The A&E safety surveys assess compliance with explosives safety requirements of this regulation and DA Pam 385–64 and DA Pam 385–65. (If evaluating, contractor operations compliance will be evaluated against contract safety requirements.)

*b.* Explosives safety professionals from the LRTAO will visit AMC, IMCOM, FORSCOM, TRADOC, NGB, Military District of Washington, USAR/SC, ATEC, U.S. Army Pacific, Eighth U.S. Army, and U.S. Army Europe commands and installations on a 4–year cycle to conduct A&E safety surveys. Local commanders will support and provide assistance to the team. Reviews, reports, and technical assistance are prescribed in AR 700-13.

*c.* The ODASAF, in conjunction with the DCS, G–4, will oversee A&E safety surveys including, development and approval of A&E safety survey criteria and will review survey reports to identify A&E safety programmatic findings and trends and implement corrective actions.

## **5–9. Explosives safety assistance visits**

*a.* The USATCES conducts ESAVs to evaluate the effectiveness of a command, installation, or activity's ESMP and



compliance with regulatory requirements, to identify shortcomings, and to provide assistance with ESMP improvements (including determination of site plan requirements, development of site plans, evaluating explosives operations safety including quantity-distance and lightning protection and mobilization, range, and training issues).

*b.* The ESAVs are strictly assistance visits. Any information gathered or reports generated will be between USATCES and the command, installation, or activity evaluated, and there is no requirement for the installation to respond to findings.

*c.* Commands, installations, or activities seeking an assistance visit should contact USATCES.

## **Chapter 6**

### **Public, Family, Off-Duty Recreation and Seasonal Safety**

#### **6-1. Introduction**

Public, Family, and recreational safety programs are an essential part of the Army Safety Program that must continually heighten accident prevention awareness during all on-duty and off-duty recreational programs for Soldiers, Army civilians, and their families. Sports and recreational activities continue to rank high as a major cause of accidental injury.

#### **6-2. Policy**

*a.* As in all aspects of military planning and operations, CRM applies to public and recreational activities. Soldiers and Army civilians must be reminded that injuries and fatalities occurring during off-duty time are detrimental to combat effectiveness; therefore, CRM will be used by Soldiers when planning their off-duty activities. It is highly recommended that Army civilians do the same.

*b.* The public, Family, recreation, seasonal safety procedures, and guidelines prescribed in DA Pam 385-10 will be used together with this chapter.

#### **6-3. Preparation for leave and temporary duty**

*a.* Procedures will be developed and implemented at all levels of the Army to ensure Soldiers have applied CRM to their leave, pass, TDY, or PCS travel plans, which involve driving out of the local area, as determined by the commander.

(1) Immediate supervisors will require the use of the automated POV risk assessment tool at <https://crc.army.mil>, prior to leave, pass, TDY, or PCS outside the local area, as determined by the commander.

(2) Immediate supervisors will review their Soldiers planning, consult with them on their plans, and work with each Soldier to reduce any unacceptable risk.

*b.* Procedures will be developed and implemented at all levels of the Army to ensure that Army civilians have applied CRM to their TDY and PCS planning.

(1) Supervisors will require the use of the automated POV risk assessment tool at <https://crc.army.mil> prior to TDY trips or PCS outside the local area, as determined by the commander.

(2) Supervisors will review their Army civilians' TDY and PCS planning, consult with them on their plans, and work with each Army civilian to reduce any unacceptable risk.

#### **6-4. Safety promotion**

Promotional programs and procedures will be developed to increase awareness of the specific hazards associated with the change of seasons and celebration of holidays. These programs and procedures will emphasize the application of CRM in planning for Family outings, parties, and celebrations, especially addressing the use of alcohol and motor vehicles. Immediate supervisors will conduct safety briefings prior to all holidays and long weekends to emphasize the need for CRM and hazard reduction.

#### **6-5. Headphones**

Using headphones or earphones while walking, jogging, skating, and bicycling, including pocket bike, motorcycle or moped on Army installation roads and streets is prohibited.

#### **6-6. Water safety**

As part of the Army Safety Program, a strategy will be established to provide safe water operations and water recreational activities. This strategy will be publicized in a manner appropriate to the geographic area and will incorporate the requirements contained in AR 215-1, paragraphs 8-25 and 8-28.

#### **6-7. Recreational boating**

Installations are to develop, publish, post, and enforce rules and regulations for all boating activities (for example,

sailing, canoeing, skiing, personal water craft, fishing, and so forth) addressing boating speed limits, alcohol consumption, right-of-way requirements, approved personal flotation devices, required safety training, accident reporting, and boating operator licensing in accordance with Federal, State, and local laws.

### **6–8. Installation recreation areas**

Standing operating procedures will be developed, posted, and enforced to ensure public and military personnel safety at all recreational facilities and areas (that is, camping, hunting, and picnic areas; baseball; multirecreational sport facilities; equestrian center; automotive shops; arts and craft centers; and so forth). The SOP will include all rules pertaining to the facility, training required, emergency reporting, and any other pertinent information necessary to maintain a safe and healthful environment.

### **6–9. Public activities on military installations**

Using military installations for public activities introduces a new set of risks that must be identified and either controlled or eliminated.

*a.* Composite risk management will be used to identify all hazards and risks associated with setting up the event, operation of the event, and clean up following the event.

*b.* An emergency response plan will be developed to cover medical and other emergencies identified by the CRM process.

### **6–10. Volunteer safety**

Volunteers are valuable assets which provide beneficial human resources to the installation. Guidelines for volunteers are addressed in DA Pam 385–10.

### **6–11. Sporting events**

*a.* Installations will ensure development and publishing of safety information for all sporting activities offered through the installation facility.

*b.* Activities will submit safety requirements to installation safety for approval and dissemination for all supported activities.

## **Chapter 7 Radiation Safety Management**

### **7–1. Introduction**

*a.* This chapter prescribes DA safety policy and processes for the Army radiation safety function. This chapter applies to all sources of radiation, both ionizing and nonionizing.

*b.* DA Pam 385–24 contains technical requirements for developing management and control processes for operations involving sources of radiation. Its implementation is mandatory.

### **7–2. Policy**

*a.* Army organizations shall develop management and quality control processes to identify, mitigate, and control hazardous radiation fields and other radiation hazards associated with Army activities and equipment by engineering design, administrative controls, or protective equipment (in that order). Organizations will also ensure that exposure to ionizing radiation is kept as low as reasonably achievable.

*b.* Radiation sources and radiation producing devices shall comply with all Army, DOD, Federal, and applicable State regulations and requirements.

*c.* Organizations will adopt no practice and conduct no operation involving planned exposure of personnel to radiation in excess of the applicable exposure standards. This does not preclude the use of Operational Exposure Guidance during deployment.

*d.* Although a commander or director may assign the radiation safety functions of the RSO or laser safety officer anywhere in their organization (that is, safety office, logistics, TSG's office, commander's staff, and so forth), the RSO and laser safety officer shall have direct access to the commander or director for radiation safety purposes.

*e.* Organizations involved in RDT&E, and in acquisition of equipment (including COTS equipment) that emits radiation or contains radioactive material will develop management and quality control processes to—

(1) Identify hazards and controls and incorporate protection measures or identify operational restrictions before fielding.

(2) Process residual risks for acceptance per AR 70–1 before fielding materiel.

(3) Ensure that radiological concerns are addressed in the fielding, training, and life cycle management of commodities containing radioactive material or that produce radiation.

(4) Ensure proponents of technical publications include radiation safety requirements about siting, operation, training, and maintenance of commodities and systems that contain radioactive material or emit radiation.

*f.* When required to furnish dosimeters to workers, the dosimeters from the ADC will be used. This does not prohibit ASCC commanders from using military standard dosimeters, including electronic dosimeters, for deployment operations, but the readings from these dosimeters cannot be substituted nor be used as official radiation exposures as currently documented by the ADC personnel dosimeters. They can be used during investigation of potential over exposures.

*g.* Environmental documentation will be developed for radiation sources and radiation producing equipment (see 40 CFR, AR 200–1, and AR 200–2 for environmental requirements).

*h.* Disposal of radioactive material on Army property is prohibited. However, the garrison commander may authorize radioactive releases to the atmosphere or to the sanitary sewerage system that are in compliance with all applicable Federal, state, local, DOD, and Army regulations.

*i.* Army overseas controls of radiation sources will be at least as protective as Army domestic controls.

### **7–3. Applicability**

This chapter applies to activities and organizations with a mission involving ionizing and nonionizing sources and applies during peacetime, wartime, contingency operations, training, exercises, and RDT&E.

### **7–4. Application of composite risk management**

The requirements of appendix B are mandatory and shall be applied to the requirements of this chapter and DA Pam 385–24.

### **7–5. Radiation safety key components**

As part of the Army Safety Program, a radiation safety function will consist of management and control processes addressing all aspects of the following key components as applicable:

- a.* License, ARA, and Army radiation permit management and associated recordkeeping.
- b.* Personnel monitoring to address—
  - (1) Bioassay.
  - (2) External dosimetry.
  - (3) Records.
- c.* Personal protective equipment and engineering controls.
- d.* Handling and disposal of radioactive waste.
- e.* Equipment calibration.
- f.* Training.
- g.* Inventory and accountability.
- h.* Shipping and receiving.
- i.* Foreign and captured material.
- j.* Military operations support.
- k.* Garrison support of tenants and contractors.
- l.* Life cycle management.
- m.* Use and storage—
  - (1) Posting.
  - (2) Security.
- n.* Radiation surveys.
- o.* Leak testing.

### **7–6. Army radiation authorization**

*a.* An ARA is required for all Army sources not regulated by NRC except—

(1) By-product, source, or special material that the NRC has declared to be license-exempt (10 CFR 30.14 through 10 CFR 30.20, 10 CFR 40.13 through 10 CFR 40.14, and 10 CFR 70.13) or generally licensed (10 CFR 31; 10 CFR 40.20 through 10 CFR 40.28; and 10 CFR 70.19 through 10 CFR 70.20b).

(2) Less than 0.1 microcurie (3.7 kilobecquerels (kBq)) of radium.

(3) Less than 0.1 microcurie (37 kBq) of any naturally occurring/accelerator produced radioactive material (NARM) other than radium.

(4) The NRC's regulations regarding license-exempt concentrations (10 CFR 30.14) and quantities (10 CFR 30.18) will be applied similarly to NARM with respect to ARA exemption upon HQDA approval. Applicants for such exemptions will send supporting documents through command channels to Office of the Director of Army Safety (DACS–SF), 200 Army Pentagon, Washington, DC 20310–0200.

(5) Electron tubes containing less than 0.1 microcurie of any NARM radioisotope.

(6) Machine-produced ionizing radiation sources not capable of producing a high radiation area or very high radiation area (that is, 100 millirem in 1 hour at 30 centimeters from any surface of the device). For example, medical and dental diagnostic x-ray systems, and some battery powered pulsed X-ray systems do not require an ARA. However, commanders will establish policies and procedures to assure that design and use of these excepted sources comply with applicable radiation safety regulations and guidelines and that only appropriately trained and authorized personnel operate them.

*b.* When NRC generally licensed items are centrally purchased, the CG, AMC, will issue an ARA to ensure that the general license requirements are met.

*c.* The Army Reactor Office (AR 50–7) permits Army nuclear reactors and Army reactor-produced radioactive material that remains at the reactor site.

### **7–7. Army radiation permits**

*a.* Non-Army agencies (including other military Services, vendors, and civilian contractors) require an Army radiation permit to use, store, or possess ionizing radiation sources on an Army installation (32 CFR 655.10). (For the purpose of this paragraph, ionizing radiation source means any source that, if held or owned by an Army organization, would require a specific NRC license or ARA.)

*b.* Disposal of radioactive material by non-Army agencies on Army property is prohibited. However, the garrison commander may authorize radioactive releases to the atmosphere or to the sanitary sewerage system that are in compliance with all applicable Federal, state, local, DOD, and Army regulations.

## **Chapter 8 Safety Awards Program**

### **8–1. Introduction**

The purpose of this chapter is to establish safety awards for recognizing organizations and individuals for their contributions and enhancements to the Army Safety Program.

### **8–2. Promotion of safety**

Safety awards enhance Army operations and improve safety awareness through recognition and promotion of individual and organizational accident prevention measures and successes.

### **8–3. Award guidance**

Criteria, policies, and procedures for nominating units and individuals for the awards in this chapter are contained in DA Pam 385–10.

### **8–4. Department of the Army level awards**

*a. Army Headquarters Safety Award.* This plaque is awarded by the SA/CSA to ACOMs, ASCCs, and DRUs that have demonstrated significant improvements, sustained excellence and leadership in accident prevention programs.

*b. Army Exceptional Organization Safety Award.* This plaque is awarded each fiscal year to the battalion through division and garrison organization with the most effective overall safety program.

*c. Army Individual Award of Excellence in Safety.* This plaque is awarded each fiscal year to individuals who in each of four categories—officer, NCO/enlisted, Army civilian, and contractor make the most significant contribution to accident prevention.

*d. Director of Army Safety, Composite Risk Management Award.* This plaque is awarded by the ODASAF to organizations or individuals who have made significant contributions to Army readiness through CRM.

*e. Sergeant Major of the Army, Superior Soldier Safety Award Plaque.* The SMA awards this plaque to the Soldier who demonstrates “pockets of excellence” or “best practices” in safeguarding Army operations or personnel.

*f. United States Army Safety Guardian Award.* This award is presented by the ODASAF to individuals who through extraordinary individual action in an emergency situation, prevent an imminently dangerous situation, prevent injury to personnel, or minimize or prevent damage to Army property.

*g. Army Aviation Broken Wing Award.* This award is presented by the ODASAF to individuals who, through outstanding airmanship, minimize or prevent aircraft damage or injury to personnel during emergency situations.

*h. Army Industrial Operations Safety Award.* This plaque is awarded each fiscal year to the division, depot, garrison, down to company, shop and/or section level with the most effective overall industrial operations safety program.

*i. Army Excellence in Explosive Safety Award.* This plaque is awarded each fiscal year to the company, garrison/depot/activity, battalion, brigade or division with the most effective overall explosives safety program.

*j. Army Safety Excellence Streamer.* This streamer is presented to organizations that have met prescribed eligibility

criteria in completing 12 consecutive months without experiencing a Soldier/unit at fault Class A or Class B accident and 100 percent completion of CRM training and the Army Readiness Assessment Program.

### **8-5. Army Headquarters and organization-level awards**

*a. Army Accident Prevention Award of Accomplishment.* This award is presented to TOE or TDA detachments; company-sized units, battalions, or equivalent; brigades or equivalent; and divisions, installations, or activities that have completed 12 consecutive months, or a major training exercise, or an actual deployment of greater than 120 days without experiencing a Class A, Class B, or Class C accident.

*b. U.S. Army Aircrew Member Safety Award.* Commanders present this award to aircrew members with at least 500 flight hours of accident-free hours as a crewmember.

*c. Other individual and organizational awards.* Leaders at all levels will recognize safe performance of individuals and subordinate organizations. Leaders are encouraged to develop awards that are tailored to recognize the accident prevention accomplishments within their sphere of activity, interest, or operation. Leaders may use DA Form 1119-1 (Certificate of Achievement in Safety) or are authorized to design and use locally produced certificates or trophies.

*d. Unit Impact Awards.* Commanders are encouraged to develop and issue policies for safety impact awards to promote safety awareness through on-the-spot recognition of safety related actions that are above and beyond what is required of an individual or organization.

### **8-6. Unit safety certification**

Unit safety certification is used to identify units, platoon size or larger, that have achieved levels of safety that deserve recognition. When the below criteria have been verified by the commander at the next level, a certificate will be issued by the local safety office recognizing the unit's achievement for the given period of time. To be certified, a unit must have completed the following:

- a.* Appointed in writing a safety officer who has completed the required level of training.
- b.* Implemented a safety program in accordance with this regulation.
- c.* Reduced the number of accidents, both on and off the job, by 50 percent of the previous year.
- d.* Have in place an accident tracking and reporting system that complies with the requirements of this regulation.
- e.* Have in place a documented CRM process demonstrating risk assessment and resulting implementation and management of controls.
- f.* Sustained the above initiatives for a significant and established period of time, such as 1 year, 2 years, and so forth.

### **8-7. Educational materials**

Safety offices at all levels will distribute educational and marketing information on the Army's Safety Awards Program. Safety officers will ensure that all members of the organization are aware of this program.

### **8-8. Promotion of Prevention Awards Program**

Commanders at all levels will promote the Prevention Awards Program using all available means. Typical procedures for promoting the Prevention Awards Program are articles in the installation and local newspapers, posting flyers/posters concerning the program, inclusion of the program in unit training opportunities (sergeant's time, morning roll call, and so forth), and announcements in local electronic media (radio and television).

## **Chapter 9 System Safety Management**

### **9-1. Intent**

This chapter prescribes policies and procedures to ensure hazards in Army systems and facilities are identified, and the risks associated with these hazards are properly managed. It applies to all Army materiel systems, facilities, and equipment, including NDIs and COTS items. It applies during all phases of the life cycle of systems, facilities, and equipment. These concepts apply to all levels of procurement and acquisition programs down to and including the installation level. Medical-related materiel may require more intensive management, including coordination with other Government agencies.

### **9-2. Policy**

*a.* Army systems and equipment with uncontrolled residual hazards will not be fielded without executing the formal mishap risk management component of the CRM process. Emphasis will be placed on designing out hazards in Army systems and equipment. Training, administrative procedures, and labels will be used only as a last option (see order of precedence in MIL-STD-882D).

*b.* System safety shall be applied early (for example, after concept decision) and tailored in accordance with



MIL-STD-882D for all Army systems and equipment, regardless of the acquisition process utilized (that is, evolutionary acquisition or spiral development), throughout their respective life cycles. Safety lessons learned shall be a key consideration in selecting the best solution during the analysis of alternatives.

*c.* Army commanders and managers will implement their system safety engineering and management responsibilities consistent with their missions to include accelerated acquisition, technology transitions, or NDI.

*d.* The materiel developer of a system-of-systems shall have a tailored, overarching system safety program.

*e.* The host-platform materiel developer shall assume safety responsibility for the total system integration, unless a memorandum of agreement states otherwise.

*f.* Hazards discovered in fielded systems, facilities, and materiel shall be assessed and communicated in a timely manner. The hazards shall be eliminated, controlled, or accepted through the mishap risk management component of CRM process and the ASAT, as appropriate.

*g.* An independent safety assessment of Army system safety risks will be provided in all Army System Acquisition Review Council and in-process review packages and will be provided directly to the milestone decision authority by the appropriate safety support for all milestone decision reviews (MDRs) and in-process reviews.

*h.* A system safety management plan (SSMP) will be developed for the acquisition of all systems to establish Army management objectives and responsibilities for execution of a system safety program for the life cycle of a system beginning at the concept decision. This will be updated and provided at each MDR.

*i.* Acceptance of Army system and equipment safety risks will be performed at a level of management authority commensurate with the risk.

(1) AR 70-1 establishes the Army's standard system safety risk decision matrix. Should program requirements dictate a different decision authority, an appropriate matrix will be developed by the PM. The recommended matrix will be submitted for approval to the effected level of authority. The risk acceptance hierarchy will be published and updated as required in the appropriate SSMP.

(2) A formal SSRA will be used to document the acceptance of all risks exceeding the criteria for "low" risk. Either a separate SSRA will be developed and processed for each residual hazard or a consolidated SSRA at the system or subsystem level annotating residual hazards will be processed at an appropriate time consistent with the design decision process for that system. It is not desired that processing of SSRAs be deferred until the MDRs.

*j.* Army commanders and managers will ensure risk reduction through application of controls by—

(1) System design changes that eliminate the hazard that can greatly reduce the probability or severity of a hazard.

(2) Safety devices which can reduce the probability or severity of a hazard.

(3) Training/procedures/cautions/warnings which can only marginally reduce probability of a hazard.

*k.* Known system hazards associated with GFE, NDI, or COTS will be tracked and researched, to include possible interfaces with other system components.

*l.* Where the operating environment of the Army system is precisely the same as the operating environment for the corresponding commercial system covered by the consensus design standard, hazards can be closed out as "meeting or exceeding consensus design standards." Similarly, hazards associated with GFE need only be considered if the proposed GFE application exceeds the original operating environment or if interfaces are different from which the GFE is designed.

*m.* When a hazard is identified that has potentially significant impact upon Army training or operations, the PM, in conjunction with the cognizant materiel development agency, will immediately alert the ASAT chairman.

### **9-3. Objectives**

The primary objective of system safety is to maximize operational readiness and mission effectiveness through accident prevention by ensuring—

*a.* Hazards and associated risks are identified and managed for each system throughout its life cycle and all mission variations.

*b.* Hazards are eliminated through design or controlled to acceptable levels and risk associated with residual hazards is formally identified, accepted by the appropriate management decision level, and documented.

*c.* Hazards associated with new technology or operations are identified for consideration in later applications.

### **9-4. System safety standards**

The system safety standards prescribed in DA Pam 385-16 are mandatory and shall be used together with the requirements of this regulation.

### **9-5. Application of mishap risk management component of composite risk management**

The requirements in DA Pam 385-30 are mandatory and shall be applied to the requirements of this chapter and DA Pam 385-16.

### **9-6. System safety and Manpower and Personnel Integration Program**

System safety and health hazards will be integrated into the Army's MANPRINT program, which focuses on



integrating human considerations into the system acquisition process to enhance Soldier system design, reduce life cycle ownership costs, and optimize total system performance.

### **9–7. Commercial off-the-shelf, nondevelopmental items, and local purchases**

*a.* Commercial off-the-shelf, NDI, and local purchases can pose potential problems concerning operational support and maintenance. These problems result from the fact that the item was built to commercial standards. As a result, the product may introduce hazards in the military environment. The purchaser must compare the commercial application with the tactical battlefield environment.

*b.* Prior to purchasing, consider the following:

- (1) Has the system been designed and built to meet applicable/any safety standards?
- (2) Have hazard analysis been performed?
- (3) What is the accident history for the system?
- (4) Are any protective equipment or actions needed during operation, maintenance, storage, or transport of the system?
- (5) Does the system contain or use any HAZMAT (including radioactive substances), have potentially hazardous emissions (for example, laser), or generate hazardous waste/materials?
- (6) Are special licenses or certificates required to own, store, or use the system?
- (7) Is the system similar to previous military systems? Is there a history of accidents involving a similar system?
- (8) Is the purchase attempting to resolve problems with previous equipment? Does it create new hazards?
- (9) Will it interfere with the operation or use of other military equipment?
- (10) Are there any interoperability/connectivity issues that cause safety hazards with the equipment?

*c.* The AMC and the ATEC are resources to contact for assistance in determining if there are potential interoperability/connectivity issues with locally purchased equipment.

### **9–8. Integration of system safety program requirements into acquisition programs**

Army acquisitions executives, PEOs, and PMs will integrate system safety elements, tailored to meet the complexity of system and milestones of their systems, into their acquisition programs as part of the overall system acquisition strategy. This will be accomplished by developing a SSMP for all systems (or for a family of systems) which will address the following requirements, milestones, and actions. The SSMP will contain provisions for—

- a.* Establishing Army management objectives and responsibilities for execution of the system safety program.
- b.* Defining system-specific methods for determining severity and probability.
- c.* Describing the safety resources for the program.
- d.* Chartering the system safety working group composed of representatives from users, developers, testers, DA, and other stakeholders which will be maintained throughout the system life cycle.
- e.* Establishing a hazard tracking system to provide a total life cycle record of hazards associated with the system.
- f.* Defining a SSRA process to formally document the acceptance of all risks as specified in the SSMP.
- g.* Giving a safety assessment report and health hazard assessment and obtaining a mandatory safety release from DTC, when conducting tests, pretest training, materiel field use, materiel field training, and demonstrations involving Soldiers.
- h.* Obtaining a safety confirmation from DTC for milestone decisions and materiel release/fielding.
- i.* Documenting milestones and preparing a programmatic environmental, safety, and health evaluation or safety and health data sheet in support of the MDRs.
- j.* Providing safety support for fielded items, safety evaluation of system modifications, and reprocurments to make certain hazards are not introduced into the system.
- k.* Providing notification to users of system hazards and countermeasures via the Ground Safety Notification System and safety-of-flight message system for hazards identified in fielded system. This provision does not apply to A&E that are covered by AR 75–1.

### **9–9. Facilities system safety**

*a.* Army facilities with uncontrolled residual hazards will not be used without executing the formal mishap risk management component of the CRM process. Emphasis will be placed on engineering out hazards in Army facilities. Training, administrative procedures, and labels will be used as a last option (see order of precedence in MIL–STD–882).

*b.* Army commanders, managers, and Centers of Standardization shall establish, maintain, and use FASS engineering, management, and health analysis procedures for the design, construction, operation, and disposition of military and civil works facilities, ensuring a coordinated effort between all involved components.

*c.* Army commanders, managers, and Centers of Standardization shall designate trained FASS POCs to develop

preliminary hazard information and analysis in the early stages of facility concept, for incorporation into the requirements/funding documents (DD Form 1391 (FY\_\_\_, Military Construction Project Data), task orders, scope of work, and so forth,) in accordance with DA Pam 385–16.

- d.* Funding shall be provided to conduct the relevant FASS effort throughout the life cycle of each facility.
- e.* Acceptance of Army facility and equipment safety risks will be performed at a level of management authority commensurate with the risk. A formal FASS risk assessment will be used to document the acceptance of all risks exceeding the criteria for “low” risk. A separate FASS risk assessment will be developed and processed for each residual hazard. The FASS risk assessments will not be delayed until the MDRs.
- f.* During the architect and/or engineer selection process, potential contractors shall be evaluated for qualifications and experience with contractual FASS requirements.
- g.* Design and facility use changes shall be evaluated for increased risks in accordance with DA Pam 385–16.
- h.* Facility users shall report any accident, deficiencies, malfunctions, failures, or other situations related to facility design hazards.
- i.* A hazard tracking system to provide a total life cycle record of hazards associated with the facility and equipment shall be maintained.
- j.* A FASS lessons learned database shall be maintained.

### **9–10. Objectives**

The primary objective of FASS is to maximize operational readiness and mission effectiveness through accident prevention by ensuring—

- a.* A FASS effort is established and documented during the life cycle of a facility.
- b.* A coordinated FASS effort from involved components is achieved.
- c.* Hazards and associated risks are identified and managed for facilities and equipment.
- d.* Hazards are eliminated by engineering out or controlled to acceptable levels and that risk associated with residual hazards is formally identified, accepted by the appropriate management level, and documented.
- e.* Hazards are tracked through the facility life cycle.
- f.* The FASS lessons learned are captured and shared.

### **9–11. Facility systems safety standards**

The FASS standards prescribed in DA Pam 385–16 will be used together with this regulation.

### **9–12. Training requirements**

Facility/project managers, safety professionals, and FASS POCs shall be trained in accordance with DA Pam 385–16.

## **Chapter 10 Training Requirements**

### **10–1. Introduction**

This chapter establishes the training requirements for safety support during Army operations and is intended to reduce losses of manpower and equipment, thus conserving combat power.

### **10–2. Required safety training**

All Army personnel will be provided CRM training in those areas needed for a safe and efficient execution of their task. This training shall specifically address—

- a.* The PPE required.
- b.* General safety requirements particular to the operation.
- c.* Risk mitigation techniques and controls.
- d.* Special safety requirements.
- e.* Lessons learned from previous operations.
- f.* Procedures for reporting and responding to accidents.
- g.* Identification of all known and perceived hazards.

### **10–3. Risk management in training**

*a.* Leaders and managers are responsible for integrating CRM into all Army processes and operations. Safety and occupational health staffs will provide mishap risk management component of CRM training, tools, and other related assistance. Risk reduction through application of controls by training, procedures, cautions, and warnings help reduce accident probability.

b. Installations are to ensure that the CRM process is incorporated into training plans.

#### **10-4. Safety and occupational health training**

All active Army, ARNG, USAR, and Army civilian employees will be provided the training and education necessary to achieve the skills listed in this paragraph. This training, as a minimum, will be in accordance with 29 CFR 1960.

a. Each agency shall provide occupational safety and health training for safety and health specialists through courses, laboratory experiences, field study, and other formal learning experiences. This training prepares them to perform the necessary technical monitoring, consulting, testing, inspecting, designing, and other tasks related to program development and implementation, as well as hazard recognition; evaluation and control; equipment and facility design; standards; analysis of accident, injury, and illness data; and other related tasks.

b. Each agency shall provide appropriate safety and health training for employees including specialized job safety and health training appropriate to the work performed by the employee (for example, clerical, printing, welding, crane operation, chemical analysis, and computer operations). Such training also shall inform employees of the agency's occupational safety and health program, with emphasis on the employees' rights and responsibilities.

#### **10-5. Leadership training**

Army leaders, commanders, directors, managers, and supervisors will be provided specialized training to enable them to execute their safety and occupational health and CRM leadership responsibilities properly.

#### **10-6. Commanders**

a. Commanders are required to complete the Command Safety Course (CSC). The CSC provides commanders the tools to manage their unit safety programs effectively and to incorporate CRM into all unit planning and activities. It leverages multimedia, Web-based distance learning technology, and, as such, is accessible and easily retained for everyday use. The CSC is accessible through the online Combat Readiness University.

b. Company grade officers must complete the CSC prior to assuming command. Brigade commanders, or first O-6 in the chain of command, will certify that their officers have successfully completed the CSC prior to assignment as company commanders. Brigade and battalion level command designees must complete the CSC prior to attending the Fort Leavenworth precommand course. The USACR/SC is the course proponent for the CSC. A copy of training will be retained in the training file.

c. Additional training is available for supervisors (The Supervisor's Safety Course) and managers (The Manager's Safety Course) at the Combat Readiness University.

#### **10-7. Career program-12 careerist**

a. *Activity career program managers.* The senior CP-12 careerist at the installation or major subordinate command level will serve as the activity career program manager.

(1) The activity career program manager provides advice, guidance, and support to local careerists and to the Army Headquarters CP-12 career program manager.

(2) The CP-12 careerists must complete training in accordance with the ACTEDS.

(3) The CP-12 careerists must remain abreast of current developments in dynamic safety and occupational health as well as the Army philosophy and vision to achieve world-class performance.

b. *Supervisors.* Supervisors are responsible for coaching and counseling their employees on individual career development.

(1) This counseling includes assisting employees in establishing realistic career goals, assessing employees' shortfalls in training and experience, and identifying training and development needs and opportunities.

(2) Supervisors should use DA Pam 690-43 and request assistance from activity career program managers in this endeavor.

c. *Individual careerists.* Each individual is responsible for his or her own career planning and personal development. Paramount to success is establishing individual career goals, ascertaining what training and development is needed to achieve those goals, then actively seeking out and pursuing the training and development required. In addition, individuals are strongly encouraged to obtain as much education as possible, to include advanced degrees and professional certification.

#### **10-8. Additional duty safety personnel**

a. Additional duty safety personnel are required to complete an online ADSC. The course focuses on additional duty safety personnel from company through brigade level. The ADSC establishes the Army standard for trained and qualified additional duty safety personnel. Course completion will also satisfy the requirements for completing a local unit safety officer course. The course will require approximately 16 hours to complete.

b. Local safety offices shall provide additional training to ADSO personnel to ensure they can sufficiently perform their ADSO duties for their organizations. Training should include command, local, and safety occupational health requirements; evaluation and abatement of local hazards; local procedures for reporting and investigating allegations of

reprisals; the recognition of local potential hazardous conditions and environments; identification and use of Army, command and local required occupational safety and health standards; and other appropriate rules and regulations that will assist ADSOs in performing their duties.

c. Additional duty safety personnel on active duty are required to complete the ADSC within 30 days of appointment. Nonactive duty guard and reserve personnel are afforded 90 days to complete the course. The new ADSC is hosted on the USACR/SC learning management system. The USACR/SC course certificates and resource compact disks are provided to users upon successful completion of the course.

### **10-9. Educational material**

Safety education and promotional materials such as posters, films, technical publications, pamphlets, incentive items, and related materials are proven cost effective safety awareness tools and, therefore, will be budgeted for and used at all levels of the Army to promote safety. The USACR/SC will provide educational material upon request.

### **10-10. Specialized training requirements**

The DASAF is the proponent of specialized safety training in accordance with AR 600-3. Various functions within the Army Safety Program require specialized training. DA Pam 385-10 will include a list of the requirements as well as the ACTEDS plan.

a. *Radiation training.* The training and experience of the RSO and the alternate RSO must be commensurate with the radiation program for which they will be responsible with formal radiation training completed before assuming duties. The dynamic aspects of the radiation protection program require that each garrison RSO be provided radiation protection training annually to ensure that he or she is adequately trained. Annual training will be scheduled and funded by the commander in accordance with DA Pam 385-24.

b. *Explosives safety.* Workers involved with explosives and ammunition will be provided training in accordance with the requirements of DA Pam 385-64.

c. *Chemical agent workers.* Workers involved with chemical agent operations will be provided training in accordance with the requirements of DA Pam 385-61.

d. *Biological workers.* Biological workers will be provided training in accordance with the requirements of DA Pam 385-69.

### **10-11. U.S. Army Combat Readiness Center**

a. The USACR/SC provides extensive safety training and a complete list of their available courses is located at <https://safety.army.mil/>. Safety and occupational health intern training as well as ASO training are conducted at the USACR/SC. Another source of safety training available to commanders is the USACR/SC mobile training team. The team will come to the unit's location and conduct a 3-day or 5-day Army Safety and Composite Risk Management Training.

b. Additional training is available for supervisors, managers, collateral duty safety officers, and employees at the Combat Readiness University. The courses are—The Collateral Duty Safety Officer Course, The Employee's Safety Course, The Manager's Safety Course, The Safety Committee Member's Safety Course, and The Supervisor's Safety Course.

## **Chapter 11**

### **Motor Vehicle Accident Prevention**

#### **11-1. Introduction**

a. This chapter establishes requirements for traffic safety and loss prevention to reduce the risk of death or injury to Army personnel from POV, AMV, and ACV accidents. It also establishes requirements for motor vehicle accident prevention on Army installations and supplements public traffic safety law.

b. This chapter applies to all active duty Army military personnel at any time, on or off a DOD installation; to ARNG and USAR personnel while in a military duty status; to all Army civilian personnel in a duty status, on or off a DOD installation; to all personnel (including contractor personnel) in a DOD-owned motor vehicle; and to all persons (including contractor personnel) at any time on an Army installation.

#### **11-2. Motor Vehicle Accident Prevention Policy**

To facilitate accident prevention efforts, Army personnel listed below will accomplish the following listed tasks:

a. *Commanders and directors at all levels.* Commanders and directors at all levels will—

(1) Brief all fatal and other Class A vehicle-related accidents (On-duty or off-duty Soldiers and on-duty Army civilians, contractor reported, and visitors to Army installations) to the first general officer in the chain of command.

- (2) Ensure that Army vehicle maintenance and required before, during, and after operation checks are carried out according to Army regulations, technical manuals (TMs), and operator's manuals.
  - (3) Collect, analyze, and evaluate motor vehicle operator behavior and accident data to identify where accident prevention efforts must be focused.
  - (4) Ensure that AMV operators are selected, trained, tested, and licensed in accordance with Army regulations.
  - (5) Ensure AMV driver candidates meet state or HN driver licensing requirements.
  - (6) Ensure that senior occupants are familiar with their authority and responsibilities according to paragraph c, below.
  - (7) Provide training, education, and motivation programs to prevent motor vehicle accidents. These programs will encompass the on-duty and off-duty operation of motor vehicles and recreational vehicles.
  - (8) Develop procedures to respond to traffic accidents—to include first aid, evacuation of injured, and the safe removal of disabled vehicles.
  - (9) Ensure formal recognition of vehicle operators and organizations with outstanding safe driving records.
  - (10) Ensure personnel riding in vehicles requiring personnel to be exposed, are trained in rollover and other emergency procedures.
- b. Supervisors of Army motor vehicle and Army combat vehicle operations.* Supervisors of Army motor vehicle and Army combat vehicle operations will—
- (1) Enforce standards of performance to ensure safety and consistency of Army Soldiers' vehicle operations.
  - (2) Ensure that an assistant driver is assigned when required by paragraph 11-4c, below.
  - (3) Verify that Army vehicle drivers meet rest, duty time, and the alcohol restriction requirements.
  - (4) Verify whether Soldiers are taking prescription or nonprescription medication that may impair driving or alertness.
  - (5) Assess driver performance periodically and use incentives to reward drivers with good driving records.
  - (6) Incorporate the principles of mishap risk management component of CRM process into all motor vehicle-related duties and responsibilities.
  - (7) Report hazardous operating conditions of Army vehicles to the vehicle dispatcher.
  - (8) Ensure that personnel operating or riding in tactical or combat vehicles have trained and rehearsed crew evacuation or rollover and fire drills.
- c. Senior occupant.* The senior occupant is the senior ranking individual present or in the case of a combat vehicle, the vehicle commander (VC), is responsible for the overall safety of the occupants. The senior occupant/VC will—
- (1) Ensure that the requirements of this regulation and AR 600-55 are met.
  - (2) Ensure that the vehicle is operated in a safe manner and in accordance with applicable AMV standards and traffic safety laws.
  - (3) Ensure that the driver is licensed on the vehicle to be operated.
  - (4) Prevent drivers who appear fatigued or who are physically, emotionally, or mentally impaired from operating a vehicle.
  - (5) Ensure that drivers obey headphone and listening devices, operator distraction, and alcohol consumption restrictions.
  - (6) Ensure vehicle occupants use occupant restraint devices at all times. If the senior occupant cannot be ascertained, the driver shall be responsible for enforcement.
  - (7) Ensure that the authorized seating capacity of the vehicle is not exceeded.
  - (8) Assist the driver in identifying unsafe mechanical conditions of the vehicle.
  - (9) Report hazardous operating conditions of vehicles in accordance with the organization's maintenance SOPs.
  - (10) Identify road and/or other driving hazards.
- d. Motor vehicle operators.* Motor vehicle operators will—
- (1) Operate vehicles in a safe and prudent manner. This includes complying with local speed limits, vehicle speed limits, operating limits, municipal and state laws, SOFAs, and military vehicle regulations.
  - (2) Report use of prescription or nonprescription medication that could reasonably impair driving or alertness to immediate supervisor.
  - (3) Report hazardous operating conditions of the vehicles to the vehicle dispatcher.
  - (4) After seeking emergency aid, report accidents immediately to their supervisor and to the vehicle dispatcher.
  - (5) Ensure that the cargo has been properly loaded and secured prior to and during transport.
  - (6) Wear installed restraint systems and enforce the requirement for passengers to wear occupant restraint devices at all times. Personnel involved in emergency medical care are exempt from the restraint use requirement.
  - (7) Ensure that vehicles and their contents are properly secured when left unattended, to include setting the emergency brake and adequately blocking and chocking the wheels.
  - (8) Safely ensure that highway-warning devices are properly displayed when the vehicle stops on or beside the traveled portion of the roadway.



(9) Post personnel and warning triangles to warn approaching traffic when the vehicle is disabled or halted in a location that obstructs traffic.

(10) Use ground guides in accordance with the provisions of this regulation, FM 21–60, and FM 21–305.

(11) Ensure that personnel riding in tactical or combat vehicles have been trained and have rehearsed crew evacuation or rollover and fire drills.

*Note.* Soldiers will report to the commander any traffic violations received from traffic authorities, on or off post.

### **11–3. Motor vehicle safety standards**

#### *a. General Army motor vehicle safety standards.*

(1) Army motor vehicles will be maintained in a safe and serviceable condition in accordance with AR 750–1, DA Pam 750–8, TM 38–600, appropriate maintenance manuals and vehicle TMs, and this regulation.

(2) Before, during, and after vehicle operation, commanders or their representatives will ensure that drivers perform the appropriate safety checks, in addition to required preventive maintenance checks and services, to correct or prevent the following conditions:

(a) Improper functioning of steering, lights, windshield wipers, horn, warning signals, side or rearview mirrors, occupant restraint devices, and other safety devices. The driver and all passengers will use restraint systems. Personnel performing emergency medical care are exempt from the restraint use requirement.

(b) Improper condition of windshield, windows, mirrors, lights, reflectors, or other safety devices that are broken, cracked, discolored, or covered with frost, ice, snow, dirt, mud, or grime. Glass will not have posters, placards, stickers, or nontransparent materials that impair operator vision or create a hazard.

(c) Defective, inoperable, or out-of-adjustment service or parking brakes. (When moving vehicles with inoperative service brakes, tow the vehicle using the appropriate recovery vehicle or towbar.)

(d) Fluid leaks. Service leaks in accordance with equipment TMs.

(e) Tires that are excessively worn, deeply cut, or have exposed cords (see TM 9–2610–200–14).

(f) Any condition likely to cause injury to personnel or failure of a component. Examples are cracked wheel hubs, worn or frayed tiedown straps, torn sheet metal with exposed sharp edges, damaged or missing exhaust pipe shields, and leaks from exhaust systems.

(g) Improperly secured loads.

(h) Vehicle loaded beyond design load limits.

(i) Unsafe transport of personnel.

(3) Operators are responsible for bringing any vehicle deficiency to the supervisor's attention. Fault status instructions of DA Pam 750–8 will be followed to ensure that no "status symbol X" faults are changed to "circle X status" (that is, allowing for one time operation or mission) if it will endanger the operator/crew and/or cause further damage to the equipment.

(4) Operators will ensure that all required safety equipment is present, current, and functional, in accordance with the standards outlined in the appropriate operator's manual.

(5) Supervisors will report defects in accordance with the provisions established in DA Pam 750–8. Suspected design or manufacturer safety defects will be fully documented and conspicuously annotated with the phrase "DEFECT WHICH MAY AFFECT SAFETY" as described in AR 58–1.

#### *b. Technical Army motor vehicle safety standards.*

(1) Commercial type passenger carrying AMVs, as defined in AR 58–1, which are purchased, leased or rented by the Army for use in the United States and U.S. territories and possessions, shall meet all applicable requirements of 49 CFR 571.

(2) Nondevelopmental item vehicles built to Government-modified manufacturers' specifications will also meet applicable requirements of the Federal Motor Vehicle Safety Standards unless a written waiver is obtained from the U.S. Army Tank-Automotive and Armaments Command (TACOM), which has been designated by the DCS, G–4, as the lead agent for wholesale logistics management.

(3) Foreign-built commercial vehicles purchased, leased, or rented for use OCONUS and U.S. territories and possessions will meet all applicable safety requirements of the country in which they are registered or assigned. Prior to procuring foreign-built commercial vehicles, commanders of OCONUS major ACOMs will review the motor vehicle safety standards for acceptability. The review will include all standards applicable to the make, model, and year of manufacture for each type vehicle to be procured. Vehicles intended for export to the United States must comply with U.S. safety import standards.

(4) Tactical and combat vehicles, designed to contract specifications, may be exempt from Federal Motor Vehicle Safety Standards if such compliance would unacceptably degrade essential military characteristics. Commanders responsible for establishing design characteristics will follow MIL–STD 1180B(1). Copies may be obtained from TACOM.

(5) All AMVs other than tactical and combat vehicles shall be designed to be equipped with restraint systems unless a waiver is obtained from TACOM.

(6) Army motor vehicles will be provided with rollover protection or vehicle roof structure crush protection that conforms to 49 CFR 571.216 and 56 FR 15510 unless a waiver is obtained from TACOM.

(7) Tactical- and combat-designed wheeled vehicles undergoing developmental testing will be provided with appropriate restraint system/rollover protective structures for protecting test participants.

*c. Periodic motor vehicle inspection requirement (HSPG Number 1).* All DOD vehicles, including NAF vehicles and Government-owned and contractor-operated vehicles, shall be required to pass a safety inspection at least annually. This inspection is described in AR 58-1 and DODI 6055.4 and is in addition to the dispatch inspections.

(1) The inspection will evaluate systems and components for vehicle performance, such as occupant restraint devices, lighting, glazing, exhaust system, wipers, horn, brake systems, steering systems, suspension, tires, and wheel assemblies.

(2) The inspection will ensure that exhaust emissions do not exceed any applicable Federal, State, municipal, or HN requirements.

#### **11-4. Safe motor vehicle operations**

*a. Occupant protection (HSPG Number 20).*

(1) Occupant protective devices will be worn by all persons in or on an Army-owned motor vehicle on or off the installation.

(2) All personnel, to include Family members, guests, and visitors, will wear occupant protective devices at any time on an Army installation.

(3) Occupant protective devices will be worn by all Soldiers driving or riding in a POV whether on or off the installation.

(4) Individuals will not ride in seats from which manufacturer-installed occupant restraints, including airbags, have been removed or rendered inoperative.

(5) Child safety seats shall be used on all Army installations. Installation traffic safety programs shall be consistent with State or local child safety seat laws and with AR 190-5. If there is no applicable local requirement, the installation traffic safety program shall specify age, weight, seating placement, or other criteria for child safety seat use.

(6) The vehicle operator is responsible for informing passengers of the occupant protective device requirement and the senior occupant is responsible for ensuring enforcement. If the senior occupant cannot be ascertained, the driver is responsible for ensuring enforcement.

(7) All personnel will consider failure to use occupant protection devices, failure to wear required protective equipment, or failure to comply with licensing or operator training requirements in making line-of-duty determinations for death or injuries resulting from such nonuse of equipment or noncompliance with requirements.

(8) Soldiers will complete a Travel Risk Planning System, POV risk assessment when going on leave, pass, or TDY out of the immediate local area and will be operating a motor vehicle. The definition of "local area" will be determined by the commander. The risk assessment tool is accessed through the USACR/SC Web site at <https://safety.army.mil>.

(9) In the event the online risk assessment tool is not available, supervisors may substitute the online tool with the individual risk assessment found in the POV risk management toolbox on the USACR/SC Web site.

(10) When access to the internet is not available, supervisors will ensure the Soldier is provided with assistance in completing a DA Form 7566 (Composite Risk Management Worksheet), and ensure the form is signed by the appropriate authority.

*b. Driver fatigue management.* To reduce the potential for traffic accidents caused by operator fatigue, commanders will establish and enforce specific rest and duty hour limits for AMV operators.

(1) Operators will be provided with at least 8 consecutive hours of rest during any 24-hour period.

(2) An operator will not drive more than 10 hours in a duty period (including rest and meal breaks).

*c. Assistant driver scheduling guidance.*

(1) If more than 10 hours are needed to complete operations, commanders will assign to each vehicle an assistant driver who is qualified to operate the vehicle.

(2) Assistant drivers for other operations will at a minimum, be familiar with the vehicle operations and trained for ground guide duties. Other operations that require assistant drivers include—

(a) More than 4 hours of the mission are expected to be during darkness.

(b) The need to wear mission-oriented protective posture equipment is anticipated.

(c) Night vision goggles will be worn during the mission.

(d) Travel over unfamiliar terrain will require detailed en route navigation.

(e) Use of a ground guide is anticipated and required.

(f) Deteriorating weather or road conditions are expected.

(g) High-value or mission-critical weapons systems or equipment is being transported.

(h) Other unusually difficult mission conditions are expected.

*d. Headphones, earphones, and listening devices.*

(1) Wearing portable headphones, earphones, or other listening devices (except for hands-free cellular phones) while operating a motor vehicle is prohibited.

(2) Motorcycle operators may wear motorcycle helmets equipped with operator-passenger intercom systems.

*e. Cellular phone use.* Vehicle operators on DOD installations and operators of Government-owned vehicles shall not use cellular phones unless the vehicle is safely parked or unless they are using a hands-free device. The only exceptions to this prohibition are emergency responders, such as MP, ambulance, fire emergency, EOD, and HAZMAT responders.

*f. Operator Alcohol Consumption (HSPG Number 8).* Vehicle operators will not operate a vehicle for 8 hours after consuming intoxicating beverages, or longer if residual effects remain.

*g. Safety equipment.*

(1) Eye protection (ANSI Safety Code Z87.1 approved safety goggles or spectacles with side shields) will be worn by VCs, drivers, and assistant drivers of combat or tactical vehicles, when exposed to hazards outside the vehicle, except when protected by a windshield.

(2) Head protection (combat vehicle crewman-approved ballistic helmet or flight helmet as appropriate) will be worn by all personnel operating or riding as a passenger in Army tactical vehicles in the field.

(3) All trailers will be equipped with safety chains or similar devices and properly connected to the prime mover to prevent breakaway trailer accidents.

(4) Trailer brake lights, taillights, and turn signals will be in operating condition.

(5) Army motor vehicles, except nontactical vehicles, will be equipped with properly sized chock blocks for use when parked on sloping terrain, while maintenance is being performed, or when a vehicle is parked and a trailer is attached.

(6) All AMVs operating over public roads will be equipped with highway warning triangles. Vehicles carrying flammable or explosive materials will not use or carry flares.

(7) Emergency, repair, and utility servicing vehicles, truck tractors designed to haul oversized slow-moving loads, truck wreckers, and other vehicles that frequently deviate from or obstruct normal traffic patterns will be equipped with rotating or flashing warning signal lamps. Lights will be red and white for ambulance and firefighting vehicles; blue, or red and blue for law enforcement vehicles; and amber for all others. These devices will be used by emergency response vehicles only when responding to emergency calls, when required to warn traffic of emergency vehicles stopped at the scene of an accident or breakdown, or when military vehicles are used in the pursuit of offenders.

(8) Rotating or flashing amber lights will be used for cranes (wreckers), oversized or overweight vehicles, snow-removal equipment, and other highway maintenance vehicles.

(a) These lights will not be used when their operation is a hazard to other traffic.

(b) Rotating lights or beacons must be mounted so as not to be a hazard or nuisance to the operator or to other vehicle operators.

(9) Convoy signs, as well as rotating or flashing amber warning lights, will be used for the first and last vehicle in a convoy. (Host nation agreements may require additional vehicles in the convoy to use these lights.)

*h. Ground guides.* Ground guides are required when wheeled and tracked vehicles are backed, or when moved within an assembly area or motor pool.

(1) Ground guides will be properly trained in accordance with FM 21-60, FM 21-305, and Training Circular 21-306.

(2) For information regarding rail-vehicle transportation, refer to MTMCTEA Pam 55-19, available from SDDC.

(3) Engineer vehicles operating outside of supervised or controlled access construction sites will use the ground guide standards for tactical or combat-wheeled vehicles. Operators of graders, bulldozers, and other engineer vehicles will walk around the vehicle before starting the engine to ensure that the area is clear of obstructions.

(4) When backing or maneuvering in controlled access construction sites, a signal person shall be provided when the point of operation (includes area of load travel and area immediately surrounding the load placement) is not in full view of the vehicle, machine, or equipment operator; when vehicles are backed more than 100 feet; when terrain is hazardous; or when two or more vehicles are backing in the same area.

(5) When operating a vehicle, machine, or equipment within a controlled access construction site and the point of operation is in full view, the operator may back without the assistance of a signal person or spotter provided—

(a) The operator walks behind the vehicle, machine, or equipment to view the area for possible hazards.

(b) A reverse signal alarm is activated, which is audible above the surrounding noise level in accordance with 29 CFR 1926.602.

*i. Vehicles equipped with radio antennas.*

(1) Operators of vehicles equipped with radio antennas should be familiar with the fire and electrocution hazards associated with antennas contacting overhead power lines.

(2) Antennas will be clipped under the antenna-retaining clip when vehicles are operated in areas that may have overhead power lines.

(3) Vehicle operators should not stop their vehicle under power lines. This could increase the risk of an electrical shock if the antenna tiedown fails.

(4) When antennas on tracked and wheeled vehicles are secured, they will be tied down to a height of between 8 feet and 13 feet. The ends of the antennas will be blunted with an antenna tip assembly, antenna ball, and tiedown kit.

(5) Antennas will be removed and stored inside the vehicle before loading onto the railcar.

*j. Fire prevention.*

(1) Army motor vehicles will not be operated unless they are entirely free of gasoline, Jet-propellant 8 (JP 8), or Class III diesel leaks.

(2) Smoking is prohibited within 50 feet of vehicles loaded with flammable or combustible liquids, flammable gases, or explosives and in the presence of flammable vapors such as those present when fueling vehicles or examining or repairing vehicle engines or fuel systems.

(3) During fueling, drivers will turn off the engine, put the transmission in low gear or park position if automatic, and use the parking brakes. When low temperatures prevent setting the parking brakes, wheels will be chocked. For refuel-on-the-move operations, follow safety precautions provided in FM 10-67-1.

(4) Using cellular phones is prohibited during fueling operations or when flammable vapors are present.

(5) Fuel cans must be offloaded from the vehicle and placed on the ground for filling to avoid static electricity buildup or discharge.

(6) Fire extinguishers will be provided for off-road Army vehicles per applicable TM or TB.

(7) Fire extinguishers will be mounted in vehicles responding to calls for assistance (such as fire, police, and security protection) and vehicles carrying valuable equipment or materials on a mission requiring special protection.

(8) To minimize the danger of fire or explosion caused by static sparks, positive bonding connections are required between fuel tank trucks and the source from which the tank truck is being filled or offloaded, and the grounding of tank trucks is required before approaching the fuel tank.

*k. Carbon monoxide poisoning precautions.*

(1) Vehicle engines will not be operated in a maintenance facility longer than needed to move the vehicle in or out. If vehicles must be operated in a maintenance facility, an exhaust ventilation system that adequately exhausts vehicle engine gases will be used.

(2) Maintenance facilities and other enclosed areas used for vehicles will be ventilated adequately at all times to prevent overexposure to exhaust gases from vehicle engines or space heaters.

(3) Sleeping in parked vehicles with the engine heater or externally mounted generator running is prohibited. Carbon monoxide poisoning may result from exhaust gases entering the vehicle.

(4) When the power train, cooling, and exhaust systems are separated from the crew by engine access panels, the operator will ensure that the panels seal properly to prevent carbon monoxide from entering the crew compartment. Commanders of organizations that have vehicles of this type will ensure that annual carbon monoxide tests are conducted, under full working conditions, by trained personnel using calibrated test equipment. Commanders should coordinate with their local PVNTMED office for support. Any vehicle that fails the annual carbon monoxide test will be considered nonmission capable until the vehicle satisfactorily passes the test.

*l. Vehicles that make frequent stops.* Vehicles that make frequent stops (for example, police, garbage detail, trail vehicles, and so forth) will be equipped with fully operational rotating warning lights, either portable or permanently mounted and visible for 360 degrees.

*m. Specialty vehicles.*

(1) Commanders of organizations that use COTS, utility vehicles (referred to as specialty vehicles—such as Segway HT, M-Gators, Gators, “Mule” utility vehicle, aircraft-tugs) in garrison or tactical environments will establish the following:

(a) An SOP that includes at a minimum, the safe operations, limits of operational work areas, PPE, and vehicle safety equipment requirements.

(b) A driver qualification and training program.

(2) Operators must possess a military operator’s permit with the vehicle qualification annotated on the operator’s OF 346 (U.S. Government Operators Motor Vehicle Operator’s Identification Card).

(3) Commanders will establish “operational work areas” to limit the travel of nontactical specialty vehicles that are routinely used in garrison areas on Army installations. An operational work area is that area in which a specialty vehicle can travel that is not on a public or installation roadway.

(4) Manufacturer installed safety equipment will be maintained in working order.

(5) Tactical specialty vehicles such as the M-Gator will not be driven on installation or public roads except to cross the roadway, and it will only be driven on a public roadway at designated crossing points or with a road guard.

(6) Operators will not exceed the recommended load carrying capacity, personnel capacity, or maximum safe vehicle speed. Cargo items will be secured as necessary to prevent tipping.

(7) Occupant protective devices will be worn by operators and passengers of specialty vehicles where installed by the manufacturer.

(8) Adequate head protection is required for operators and passengers operating or riding in tactical specialty vehicles and for operators and passengers of nontactical vehicles operated outside of the designated operational work areas.

(a) For Segway HT, the minimum head protection standard for garrison operations is an approved bicycle helmet.

(b) Operators of tactical specialty vehicles will wear approved head protection (helmet) that at a minimum conforms to DOT 218 standards or equivalent, protective goggles or face shield, full-fingered gloves, long-sleeved shirt or jacket, long trousers, and over-the-ankle boots. Commanders may authorize the use of helmets that offer ballistic protection in lieu of DOT 218 standards when the tactical situation dictates such use.

(c) Operators will wear approved head protection (helmet) that at a minimum conforms to DOT 218 motorcycle safety standards or equivalent and passengers of nontactical specialty vehicles that are not equipped with manufacturer installed rollover protection and are operated on installation or public roads that are outside the designated operational work area.

(9) Nontactical specialty vehicles that are allowed to operate outside a controlled work area and on installation streets, roads, and highways will meet the minimum vehicle safety standards in accordance with 49 CFR 571.5, to include rollover protection, occupant protective devices, and placement of "Slow Moving Vehicle" emblems where required.

## **11-5. Safe movement of personnel**

### *a. General movement of personnel.*

(1) The following safety precaution must be in place before transporting troops in vehicles:

(a) Fixed seating is installed and passengers are seated wholly within the body of the truck.

(b) The body is equipped with stakes or sideboards, rear safety strap or tailgate protection, and a tailgate step or ladder.

(c) Canvas tops are in place with the sides rolled down when the cargo space is used for passengers (at the discretion of the commander).

(2) Before starting the engine, operators transporting passengers in trucks must ensure that the tailgate, safety device, or safety strap is in place and determine that all passengers are in a safe position.

(3) Operators will follow passenger carrying capacities for tactical and administrative vehicles per TB 9-639 or the appropriate vehicle TM.

(4) Passengers may be transported without fixed seating for short distances on the installation if each passenger remains seated and wholly within the body of the vehicle.

(5) Personnel will not be transported in the bed of an Army truck, off post, unless the truck is specifically designed to carry troops.

(6) When transporting passengers in cargo trucks in which cargo is loaded, ensure they are seated in fixed seats and the cargo is adequately secured.

(7) Transportation to and from troop training or maneuver areas may be done with cargo trucks provided such transportation is part of training and the vehicle is equipped with fixed seating.

(8) When transporting large numbers of Soldiers for training purposes, only approved semitrailers (such as vans and personnel carriers for 80 passengers) are authorized. No other types of semitrailers are considered safe to transport personnel.

### *b. Movement of personnel in cargo trucks.*

(1) When transporting personnel in cargo truck convoys, the last vehicle in the convoy will not be used to carry passengers.

(2) Transporting troops in the bed of dump trucks shall only occur on an emergency basis and with extreme caution. When troops are transported in dump trucks, fixed seating will be installed and positive locking devices will be used to prevent accidental activation of lift controls.

### *c. Transportation in 15-passenger vans.*

(1) Fifteen-passenger vans do not meet the federally mandated safety standards required for school buses, and cannot be used to transport pre-primary, primary, or secondary school age children to and from school. Fifteen-passenger vans may be used to transport children to and from childcare facilities and youth service centers if—

(a) Using 15-passenger vans is restricted to driving within the boundaries of the installation.

(b) The 15-passenger vans are only operated during daylight hours.

(2) Using 15-passenger vans to transport children to and from childcare facilities and youth service centers will not be allowed after 30 September 2008.

(3) Commanders will ensure that personnel who operate 15-passenger vans—

(a) Are experienced drivers with good driving records.

(b) Are trained on the hazards and handling characteristics associated with 15-passenger vans.

(4) Multifunctional school activity buses are not considered school buses and cannot be used for daily transport of students to and from school because they do not meet federally mandated safety guidelines. Multifunctional school



activity buses should be used whenever transportation is required for after school activities, field trips, and so forth. Multifunctional school activity buses provide a safer means of transportation than the 15-passenger van (see HSPG Number 17 for student transportation safety). Provisions shall be made to reduce the danger of death or injury to children while they are being transported to and from school or related activities in DOD or contractor-owned vehicles.

(5) In CONUS, DOD school buses shall be marked, equipped, operated, and maintained consistent with AR 58–1 and 49 CFR 571.

(6) Contractors shall comply with HN or State and local requirements in addition to any contractual requirements imposed by the applicable Army installation.

#### **11–6. Tactical vehicle safety**

*a. Requirements.* The following safety requirements apply to vehicles operated in noncombat tactical environments:

(1) Before a vehicle is started in an assembly area, a crewmember will walk completely around the vehicle to ensure that no one is in danger and that the area is free of obstructions or material that could be impacted by the vehicle.

(2) Tactical vehicle operators will keep service drive lights on at all times when on public roadways outside military installations except where SOFA or local laws prohibit use of headlights during daylight (sunrise to sunset) hours.

(3) All safety standards (including speed limits, passenger transportation standards, and vehicle maintenance) apply during tactical operations. Any deviation from the standard will be properly assessed utilizing the mishap risk management component of the CRM process. Leadership at the appropriate risk acceptance authority level will grant subsequent approval.

(4) Tactical vehicles operated on public highways will not exceed posted speed limits or speed restrictions addressed in the vehicle's operator manual, whichever is less. Additionally, tactical vehicles will be operated at speeds appropriate for the environmental conditions.

(5) Personnel will not expose more than their head and shoulders (name tag defilade) while riding in tactical vehicles that have hatches, except when actively engaging targets with the vehicle mounted weapons systems.

*b. Convoy operations.* Convoy operations will be conducted in strict compliance with FM 55–30 and FM 4–01.011.

#### **11–7. Driver education (HSPG Number 4)**

*a. Army Traffic Safety Training Program.* The Army Traffic Safety Training Program is required training for all Army personnel. The training is established to reinforce a positive attitude toward driving, individual responsibility, and correct response to routine and emergency driving situations. Each progressive traffic safety training course builds on the previous module to reinforce the Army's expectations for a safe Army driver.

(1) *Introductory Training Course I.* During initial entry training, all Soldiers shall be given traffic safety training at advanced individual training. The course will establish and reinforce a positive attitude toward driving, individual responsibility, and correct response to routine and emergency driving situations.

(2) *Local Area Hazard Training Course II.* All Army personnel who are newly assigned to an Army installation/theater will receive a briefing on the local driving hazards they may encounter while serving at that installation.

(3) *Intermediate Traffic Safety Training Course IIIA.* All newly assigned Soldiers less than 26 years of age will receive intermediate traffic safety training that reinforces the initial traffic safety training course. Other personnel may be required to attend the training as deemed necessary by the local command.

(4) *Accident Avoidance Training Course.* Anyone operating an AMV will have first completed the online accident avoidance course as part of licensing procedures. The training includes mishap risk management component of CRM, personal responsibility, driving hazard awareness, defensive driving techniques, accident avoidance, and motorcycle safety.

(a) Tactical vehicle drivers are required to complete additional vehicle specific training as required by AR 600–55.

(b) The online accident avoidance training will be repeated every 4 years as part of the license renewal procedure.

(5) *Mandatory motorcycle training.* Under the Progressive Motorcycle Program, all Soldiers who operate a motorcycle are required to take the following motorcycle training:

(a) Motorcycle Safety Foundation (MSF) basic rider course (BRC) or Deputy Under Secretary of Defense (Installations and Environment) DUSD(I&E)) endorsed, State-approved, curriculum for motorcycle operator's safety training.

(b) Experienced rider course (ERC) or the MSF BRC II.

(c) Military sportbike riders course (MSRC).

(d) Motorcycle refresher training (MRT) for Soldiers deployed for more than 180 days.

(6) *Motorcycle sustainment training.* Based on the type of motorcycle owned or operated, Soldiers are required to complete motorcycle sustainment training every 3 years, which consists of, at a minimum, retaking an ERC or the MSRC. A Soldier can meet the sustainment training requirement, at no expense to the government, by taking an Army approved advanced level motorcycle course. A list of courses meeting the criteria is located on the U.S. Army Combat Readiness and Safety Center Web site, <https://safety.army.mil>

*b. Driver improvement/remedial drivers training.* To reinforce positive driving behaviors—

(a) Commanders will provide Army-approved driver improvement courses to military or civilian personnel who,

while operating a Government motor vehicle, have been convicted of a moving traffic violation or have been determined to have been at fault in a traffic mishap.

(b) Require individuals, inside or outside normal duty hours, to attend the courses or lose installation driving privileges. State-approved driver improvement programs may be used to fulfill the requirement where an Army standardized course is not provided.

### **11–8. Unit privately owned vehicle safety inspections**

Unit commanders will ensure that unit POV safety inspections are conducted for their Soldiers. Reinspections should be conducted when unsafe conditions are identified. Vehicle inspections should include verification of motorcycle rider training, licensing, and PPE. Example inspection checklists are included in the POV risk management toolbox accessed through the USACR/SC Web site at <https://safety.army.mil>. (At a minimum, this inspection is required every 6 months.)

### **11–9. Motorcycle safety**

#### *a. Licensing.*

(1) Operators of Government-owned and privately owned motorcycles (both street and off-highway versions) on Army installations must be appropriately licensed to operate on public highways except where not required by the applicable SOFA or local laws.

(2) A valid Optional Form (OF) 346 or DA Form 5984E (Operator's Permit Record) fulfills the licensing requirement for operators of tactical motorcycles.

(3) Where state or local laws applicable to the installation require special licenses to operate privately owned motorcycles, motorized bicycles (mopeds), motor scooters, or all-terrain vehicles (ATVs), such license requirements, at a minimum, shall be required for operating those vehicles on Army installations.

(4) Minibikes, pocket bikes, and similar vehicles do not meet Federal highway safety standards and, therefore, will not be operated on installation roads. These vehicles may be operated in designated areas (off-installation roads) as designated by the senior commander.

(5) Motorcycle riders who operate motorcycles on or off post must comply with the skills training, licensing, and permit requirements of their state, HN, or SOFA.

(6) All civilian personnel or contracted laborers that are properly licensed to ride a motorcycle shall not be required to receive service-sponsored training or to prove that they have taken other motorcycle training in order to operate a motorcycle on a DOD installation.

(7) DOD civilians and authorized dependants may attend Army-provided training at no cost to the individual on request. However, priority of training must be—

(a) Soldiers and other Servicemembers on Joint bases.

(b) Department of the Army civilians who request training.

(c) DOD civilians on Joint bases who request training.

(d) Authorized dependants.

(8) Retirees on a space available basis at no cost to the government.

*b. Progressive Motorcycle Program.* The Army Progressive Motorcycle Program is designed to consistently keep motorcycle operator training current and sustain or enrich rider skills. The program consists of the following courses: BRC, ERC, MSRC, and MRT.

(1) Prior to operating any motorcycle, Soldiers will successfully complete an appropriate MSF-based BRC course or DUSD(I&E)-endorsed, State-approved curriculum for motorcycle operator's safety training.

(2) Based on the type of motorcycle(s) owned and operated, Soldiers complete either ERC or the MSRC within 12 months of completing the BRC.

(3) The Army standard basic motorcycle riders course is an appropriate MSF-based BRC or DUSD(I&E)-endorsed, State-approved curriculum for motorcycle operators' safety training. Training must be conducted by certified or licensed rider coaches and include classroom instruction on technical and behavioral subjects, hands-on training, a riding skills evaluation, and a knowledge-based evaluation. Installations will accept the completion cards of the MSF BRC course or DUSD(I&E)-endorsed course that includes written and riding evaluations as proof of successful completion of the required training.

(4) The MRT will be provided for any (motorcycle licensed and endorsed) Soldier owning the motorcycle and returning from a deployment greater than 180 days. The MRT will be conducted prior to any Soldier operating his or her motorcycle on a public or private street or highway with the exception of riding to the training site or location. The MRT will be conducted on the individual's own motorcycle to confirm ability to safely handle their motorcycle verses taking training on a smaller size/cc training motorcycle. Training will be provided through the Army Traffic Safety Training Program contractor or may be conducted at the unit level using the USACR/SC MRT DVD, which is available on request.

(5) Absent exceptional circumstances, provide training within 30 days of requests for training. Senior commanders

may authorize properly licensed or permitted operators awaiting training to ride on an installation roadway subject to any restrictions imposed by such a permit.

(6) Every 3 years following completion of the ERC or the MSRC, operators shall complete motorcycle sustainment training. Sustainment training shall mirror motorcycle course selection as outlined in paragraph 11-9b(2), or another State-approved motorcycle safe riding course. Additionally, if after a 3-year period of inactivity, the acquisition of a new or change in motorcycle(s), or a major geographic relocation, operators shall complete sustainment training. Sustainment training shall be mandated as of 1 October 2011. Operators may take advanced level training at no expense to the government to meet the sustainment training requirement. Commanders are not authorized to waive or defer sustainment training.

(7) Personnel who operate privately owned ATVs or motorcycles off road should complete appropriate operator safety training.

*c. Motorcycle vehicle equipment.*

(1) When operated on any DOD installation, in both on- and off-road modes, all Government-owned or privately owned motorcycles, mopeds, motor scooters, and ATVs (when equipped) must have headlights turned on at all times, except where prohibited by military mission, the SOFAs, or local laws.

(2) Motorcycles shall be equipped with both a left-hand and right-hand rearview mirror mounted on the handlebar or fairing. (Note that Government-owned off-road motorcycles on tactical missions or training are exempt from this requirement.)

*d. Motorcycle and all-terrain vehicle rider protection.* Commanders will ensure that all individuals covered by this regulation and all persons at any time on an Army installation wear the following PPE while riding motorcycles and ATVs. Commanders are highly discouraged from adding PPE requirements at the local level.

(1) *Helmets.*

(a) For personnel riding motorcycles and ATVs in the United States, helmets shall be certified to meet DOT Federal Motor Vehicle Safety Standard No. 218, United Nations Economic Commission for Europe Standard 22-05, British Standard 6658, or Snell Standard M2005 in accordance with DODI 6055.04, April 20, 2009, references (v), (w), (x), and (y).

(b) For personnel riding motorcycles and ATVs outside the United States, helmets must meet the HN standards. In those instances where the HN has no standard, helmets must, at a minimum, meet the DOT Federal Motor Vehicle Safety standard.

(c) All helmets shall be properly fastened under the chin.

(2) *Eye protection.* Eye protection designed to meet or exceed ANSI Z87.1, reference (z) for impact and shatter resistance includes goggles, wraparound glasses, or a full-face shield (properly attached to a helmet). A windshield or fairing does not constitute eye protection.

(3) *Foot protection.* Foot protection includes sturdy over-the-ankle footwear that affords protection for the feet and ankles (durable leather or ballistic-type cloth athletic shoes that cover the ankles may be worn).

(4) *Protective clothing.* Protective clothing includes long-sleeved shirt or jacket, long trousers, and full-fingered gloves or mittens made from leather or other abrasion-resistant material. Motorcycle jackets and pants constructed of abrasion-resistant materials such as leather, Kevlar®, or Cordura® and containing impact-absorbing padding are strongly encouraged. Riders are encouraged to select PPE that incorporates fluorescent colors and retro-reflective material.

(5) *Tactical motorcycle and Government-owned tactical ATV rider protection.* The PPE for Government-owned motorcycle and ATV operators during off-road operations should also include knee and shin guards and padded gloves.

(6) *Off-road operations.* During off-road operations, operators and riders must use additional PPE, such as knee and shin guards and padded full-fingered gloves.

*e. Tactical motorcycle and all-terrain vehicle operations.*

(1) Unit commanders may authorize the use of combat helmets for operating tactical vehicles (for example, motorcycles and ATVs) during operations and training based on an operational risk assessment.

(2) Prior to tactical motorcycle and ATV operations, operators will be trained on the tactical operations and on the controls that have been implemented to mitigate hazards. Curriculum and proficiency training for tactical motorcycles and Government-furnished (tactical and nontactical) ATVs will be tailored to satisfy specific mission objectives. In addition to the above training, government motorcycle operators will have completed the training required in paragraph 11-9b(2), above. Government ATV operators will complete the Specialty Vehicle Institute of America-based course.

*f. Can-Am Spyders and three-wheeled motorcycles.*

(1) Powered nonenclosed three wheelers shall be considered a motorcycle unless the owner submits to HQDA Combat Readiness/Safety Center, via their chain of command, all documentation that the vehicle is classified by vehicle identification number as an automobile by NHTSA.

*Note.* State Department of Motor Vehicles interpretations will not suffice.

(2) All PPE requirements applicable to motorcycles remain applicable to three-wheeled variants.

(3) The requirement for BRC, as modified by the MSF interim guidance applicable to three-wheeled motorcycles,

applies to exclusive three-wheeled motorcycle operators until the pending the MSF three-wheeled basic rider course is released by the MSF and evaluated or adopted by the U.S. Army. This guidance will be provided on the United States Army Combat Readiness/Safety Center Web site.

(4) If a modified MSF-BRC curriculum is not available, novice three-wheel operators shall be allowed to complete one of the following: take the BRC (using a two-wheeled trainer motorcycle) or a State-sponsored "Sidecar and Trike Education Program course that can help generally associate them with the risks and handling characteristics of three-wheeled vehicles.

(5) All three-wheeled operators shall familiarize themselves with and follow the manufacturer's instructions and safety precautions pertaining to their vehicle.

(6) Installation vehicle registration processes remain unaffected by this guidance. Installations shall obtain reference copies of manufacturer's recommendations and precautions applicable to three wheelers registered on their installation. This information may be shared as necessary and shall be considered authoritative in addressing issues with post law enforcement and members who own or are contemplating purchase of a three wheeler.

(7) Consistent with the anticipated context and applicability of the MSF three-wheeled basic rider course, conventional motorcycles with sidecars will continue to be regarded as two-wheeled motorcycles with BRC requirements. (Sidecars are generally a removable component, leaving the motorcycle operable in a conventional manner.)

## **11–10. Army combat vehicle safety guidelines**

*a. Army combat and track vehicle commanders.* Each ACV will have a track commander (TC) or VC who will occupy the commander's position within the vehicle. The TC or VC will receive vehicle-specific training on the vehicle's capabilities and limitations.

*b. Operator and crew safety.*

(1) Operators will not start ACVs unless the portable and fixed fire extinguishers are present and in operating condition.

(2) The intercom must be operational and in use. Moving an ACV without a TC or VC and a working intercom or dismounted ground guide is prohibited.

(3) The positive safety-locking pin will be used to fasten open hatches to avoid accidental closing during movement of the vehicle.

(4) Crew personnel will not wear rings or bracelets while conducting vehicle operational duties or when performing vehicle maintenance.

(5) Personnel in ACVs will wear protective headgear. The crew will wear fully operational combat vehicle crewman helmets or approved ballistic helmets with chinstrap fastened.

(6) Personnel exposed to eye hazards will wear appropriate eye protection.

(7) Personnel will not position themselves between an ACV and another vehicle or fixed object while the vehicle is moving or being slaved (started with jumper cables).

(8) Personnel in hatches will not expose more than their head and shoulders (nametag defilade). When nametag defilade is not observed, commanders must establish clear guidance and implement controls to mitigate or eliminate the added risk. All other personnel will ride with their bodies completely inside the vehicle.

(9) Riding on the exterior of ACVs is prohibited except where outlined as an accepted practice in an Army TM or field manual.

(10) Seated personnel will wear occupant restraints, unless specifically exempted in the unit SOP or by the commander after completing mishap risk management component of CRM for the mission.

(11) When vehicles and dismounted personnel are training together during darkness, the dismounted personnel will notify vehicle operators and TCs or VCs of their location.

(12) At railroad crossings without electric signal lights or road guards, operators of ACVs will stop and check the clearance in both directions before crossing.

*c. Rollover drills and emergency procedures.*

(1) Personnel riding in ACVs will be trained in crew rollover, fire, and emergency egress drills. The drills will be conducted prior to gunnery, field training exercises, or combat missions.

(2) Rollover drills will be conducted prior to every tactical training or actual deployment cycle.

*d. Bivouac and assembly areas.*

(1) Commanders will ensure that sleeping area perimeters are designated and marked. They should select sleeping areas protected by natural obstacles when possible.

(2) Where access to bivouac or an assembly area is restricted to road entry, a guard should be posted to warn vehicle crews that there are troops on the ground.

(3) Prior to leaving a motor pool or assembly area in tactical environments, the TC or VC will walk completely around the vehicle to check for personnel or other hazards in the vicinity of the vehicle.

(4) Operators will move ACVs in motor pools, parking areas, cantonments, assembly, and sleeping areas only when



a dismounted ground guide assists. When visibility is reduced, guides will use flashlights to direct vehicles. The TC or VC, driver, and dismounted ground guide will maintain visual contact at all times.

(5) At railroad crossings without electric signal lights or road guards, operators of combat vehicles will stop and check both directions before crossing.

## **11–11. Pedestrian and bicycle safety**

*a. Pedestrian safety.* Pedestrian safety shall be an integral part of each installation traffic safety program. The program shall include—

- (1) Separating pedestrian and motor vehicle traffic to the maximum extent possible.
- (2) Posting regulatory speed limit signs at all vehicle entrances to military installations. In concentrated troop areas (for example, company areas and billeting areas) and along all routes of troop march, regulating signs will be posted that limit vehicle speed to 10 miles per hour.
- (3) Constructing sidewalks, pedestrian crossings, handicap access ramps, and bicycle paths in accordance with the Manual on Uniform Traffic Control Devices for Streets and Highways.
- (4) Having educational programs that will assist leaders in promoting use of paths or sidewalks along roadways and wearing reflective outer garments during periods of reduced visibility.
- (5) Placing special emphasis on protecting children walking to and from school, entering and leaving school buses, and playing in DOD housing areas.
- (6) Prohibiting individuals to skate, jog, run, or walk on roadways during high traffic density and peak traffic periods. Senior commanders shall designate which roadways and times that apply. Senior commanders shall establish designated routes for organized physical training formations that will limit exposure of troops to motor vehicle traffic.
- (7) Wearing reflective vests or belts during hours of limited visibility for personnel running (not in troop formation).
- (8) Prohibiting wearing of portable headphones, earphones, ear, or other listening devices while jogging/running, bicycling, or skating/skateboarding on or adjacent to roadways or roadway intersections on DOD installations.
- (9) Wearing approved protective headgear while using powered and nonpowered scooters, skateboards, roller skates, and roller blades. Hand, elbow, and knee protection is highly recommended for these type activities.

### *b. Bicycle safety.*

- (1) Bicycle safety shall be an integral part of each installation traffic safety program.
- (2) Bicycle helmets, approved by the Consumer Product Safety Commission (CPSC) will be worn by all personnel including Family members who ride bicycles on Army installations. Previously purchased bicycle helmets certified by the American Society for Testing and Materials may also be worn but when purchasing a new helmet, riders should look for the CPSC certification. Outside CONUS, riders may wear HN helmets if the helmet meets or exceeds CPSC standards.
- (3) For Government-owned three-wheeled bicycles that are operated within operational work areas, commanders may use CRM procedures to determine exceptions to the helmet requirement.
- (4) The wearing of headphones, earphones, or other listening devices while bicycling on or adjacent to roadways on DOD installations is prohibited.
- (5) When bicycling on roadways on DOD installations during hours of darkness or reduced visibility, bicycles will be equipped with operable headlights and taillights, and the bicyclist will wear a reflective upper outer garment.

### *c. Issued personal protective equipment.*

- (1) Fluorescent or reflective PPE shall be provided to and used by all personnel who are exposed to traffic hazards as a part of their assigned duties; for example, marching/running/jogging troops, road guards, traffic control personnel, road construction crews, police call, electricians, or telephone repair personnel working on outside overhead lines.
- (2) Troop formations, during periods of reduced visibility, will post front and rear guards 30 meters in front and to the rear.
- (3) Troop formations moving on roadways during periods of darkness will be provided flashlights with wand or luminescent chemical lights.

## **Part Two Sustaining the Soldier**

This part addresses those special Army Safety Program management functions that are appropriate to sustaining the Soldier during training, mobilization, and tactical and field operations in the garrison or during contingency and wartime conditions. Sustaining the Soldier presents unique challenges due to the duties, the intensity of training, and the fact that they are Soldiers 24 hours a day, 7 days a week. The principles and concepts stated in this part can be applied to Army civilians as well.



## Chapter 12 Force Mobilization

### 12-1. Intent

This chapter establishes the minimum safety requirements for projecting combined active Army and reserve component (RC) ARFOR into any environment during hostilities and contingency operations. Transformation of today's Army and new world challenges lead to combining different types of units with varying degrees of modernization together with multinational forces and civilian agencies to achieve effective and efficient unified action. This places a great demand on Soldiers and leaders. Therefore, CRM will be used to identify and control hazards.

### 12-2. Application of composite risk management

A Soldier's job comes with a certain level of risk. Operational conditions often impose significant risks to Soldiers' lives and health and make equipment operation difficult. When applying CRM, use mission, enemy, terrain and weather, troops, time available, and civil considerations to systematically identify hazards in accordance with FM 3-0.

### 12-3. Standards

*a.* Safe operations come from enforcing standards during training and then applying them during actual operations. Therefore, Army leaders will train to the standards and hold Soldiers accountable to follow them during all operations.

*b.* A common deployment concern is that individuals abandon safety in an effort to establish "combat posture." Therefore, leaders are to ensure that the CRM process is incorporated in regulations, directives, SOPs, special orders, training plans, and operational plans to minimize accident risk and that SOPs are developed for all operations entailing risk of death, serious injury, occupational illness, or property loss.

*c.* Leaders will establish a command climate from the outset that promotes safety and takes every measure and precaution to keep Soldiers healthy and maintain their morale. This will be initiated by establishing a safety network and designating safety personnel at all levels.

*d.* Soldiers will enforce standards and require their peers and all personnel to perform to standard in all operations.

### 12-4. Operational deployment areas of consideration

The actions that take place prior to deployment are crucial to a successful deployment. Safe deployment operations demands a commitment of commanders and leaders at every level to ensure that Soldiers execute to standard throughout the operation (for example, strategies and procedures will be developed to address rail operations, convoy operations, aviation operations, port operations (sea and air), and so forth).

### 12-5. Health Issues

*a.* Predeployment medical and/or dental screening and appropriate predeployment prophylaxis (measures designed to preserve health) are vital and will be instituted prior to deployment.

*b.* Medical and environmental health threat briefings will be provided to Soldiers so they are aware of and prepared for the risks in the theater of operations.

*c.* Proper education and predeployment medical and/or dental screening will be used to prevent unnecessary loss of Soldiers during all phases of deployment.

*d.* The Occupational and Environmental Health Surveillance requirements as delineated in DODI 6490.03 must be implemented.

### 12-6. Postmobilization

Soldiers returning from deployments must be reintroduced into their nondeployment roles as Soldiers, husbands, wives, mothers, fathers, and citizens so that they readjust to the new stressors and different demands. Therefore, strategies and procedures will be developed to—

*a.* Complete DD Form 2796 (Post-Deployment Health Assessment).

*b.* Assess, treat, and document adverse or potentially adverse exposures or negative health related behaviors during mobilization and demobilization.

*c.* Provide health threat briefings to educate spouses on health related symptoms and myths, to include information on identifying potential signs and symptoms of distress and treatment options.

*d.* Provide briefing and education on changes in relationships, single Soldier parent issues, and child behaviors.

*e.* Provide training in suicide awareness and prevention, individual and Family communication, and a medical threat brief.

### 12-7. Reintegration

With continued deployments and redeployments of Soldiers, all leaders will mitigate risks by ensuring that every Soldier knows his or her role and that they remain focused on the inherent dangers.

- a. Before a Soldier leaves the theater, leaders should adopt a program that includes training sessions, redeployment surveys, and medical screening.
- b. Upon return, the process continues during a set number of days—offering classes, additional medical screening, and information to Soldiers and their Families prior to the Soldier taking leave. This helps smooth the reunion process for Soldiers and their Families, to help participants recognize and establish realistic expectations about the reunion. They will learn to spot symptoms of stress, learn about sources of assistance, and the importance of communication.
- c. Privately owned vehicle safety will be included and highly emphasized in reintegration training before and after deployment.

## **12–8. Risk familiarization in postdeployment and reconstitution**

Leaders are responsible to reduce the likelihood of at-risk behavior during postdeployment and reconstitution. A primary consideration should be to reset each individual's risk acceptance threshold. The following will be developed and used to expedite the process:

- a. Schedule briefings. Returning personnel may not have driven on congested U.S. highways or been involved in social drinking situations for several weeks or months. Therefore, briefings will include seatbelt safety; safe driving factors such as speed limits, rest stops, and focus of attention; alcohol consumption and driving, swimming, boating, and operating other recreational vehicles; alcohol use and domestic violence; Army substance abuse policy (zero tolerance for illicit use); and motorcycle safety.
- b. Review the last risk reduction quarterly statistics received prior to deployment for indications of at-risk behaviors and the interventions needed to reduce the likelihood of reoccurrence. Plan to incorporate those interventions during reconstitution.
- c. Develop and use an individual risk assessment, which should begin during redeployment and continue through reconstitution.
- d. Schedule a unit risk inventory within 90 days of arriving at home station.

## **Chapter 13 Tactical Safety**

### **13–1. General**

- a. This chapter establishes the requirements for safety support during training, contingency, and tactical operations. Unless otherwise specified, the provisions of this regulation apply to both peacetime training operations and operations in a combat theater. The tactical safety element is intended to reduce losses of manpower and equipment thus conserving combat power.
- b. Composite risk management will be integrated into all tactical and contingency operations in accordance with FM 5–19. Analyze all expected tactical threat-based and accidental hazard-based vulnerabilities to determine associated risk. Implement, enforce, and review appropriate control measures. Eliminate all hazards on a greatest risk first basis.

### **13–2. Preparation for tactical operations**

Preparation for tactical operations must be completed as far ahead of time as possible before deployment to ensure complete, accurate, efficient, and safe procedures and policies are in place.

### **13–3. Tactical order**

All plans and orders will address CRM and safety management specific issues in accordance with FM 5–0, and applicable operational specific field manuals. The results of the composite risk assessment and countermeasures will be integrated throughout the order as applicable.

### **13–4. Army civilian safety personnel deployment**

Deployment of Army civilian safety personnel will be accomplished in accordance with AR 690–11 and DA Pam 690–47.

### **13–5. Safety personnel planning**

- Prior to contingency and tactical operations, all unit safety personnel and collateral duty safety personnel should—
- a. Meet to review the operations order, its safety implications, and coordinate responsibilities.
  - b. Ensure that means have been established to meet periodically during the training and contingency and tactical operations to meet and share experiences and lessons learned.
  - c. Ensure that means of contacting each safety individual is in place.

**13–6. Safety training**

All participants will be provided safety training in those areas needed for a safe and efficient execution of the operation. This training shall specifically address—

- a. The PPE required.
- b. General safety requirements particular to the contingency and tactical operations.
- c. Special safety requirements.
- d. Lessons learned from previous contingency and tactical operations.
- e. Procedures for reporting and responding to accidents.

**13–7. Army Safety Augmentation Detachment**

a. The Army Safety Augmentation Detachment (ASAD) consists of individual mobilization augmentee Soldiers who are trained in safety through the Combat Safety Officers Course.

b. The mission of the ASAD is to provide trained augmentees in the event of mobilization to serve as unit safety officers/NCOs for brigade and larger units. The ASAD is the DOD-unique organization providing ground safety support to worldwide contingency and Army Joint training exercises.

c. Requests for support must be forwarded through DCS, G–3/5/7 tasking channels to HQ FORSCOM (AFPE–SO). Requests should normally be submitted no less than 60 days in advance of the requested start date and will be submitted in accordance with AR 500–5, FC REG 350–12, and FC REG 500–3–1, Vol 1, Annex E.

**13–8. Tactical water safety operations**

Commanders of units conducting water operations will develop and implement standard procedures and advanced training for vehicle swimming, fording operations, and stream crossings. Commanders in the grade of O–6 and above must approve deviations from the SOP.

**13–9. Environmental hazards**

The DA policy is to conserve the Army's fighting strength by controlling preventable disease and injury through command-oriented occupational, environmental, and personal protection programs. All personnel are responsible for maintaining their own health and fitness. Preventable personnel losses from heat, cold, diseases, or other environmental factors are important. History has repeatedly shown that nonbattle losses have played a significant role in the outcome of military operations. While mission requirements will dictate unit policies, commanders must evaluate the effects of environmental hazards on their ability to complete the mission. The following hazards must be assessed using the CRM process and appropriate methods taken to minimize the risk:

- a. High altitude.
- b. Disease vectors.
- c. Contaminated food and water.
- d. Poor air quality.
- e. Heat.
- f. Cold.

**13–10. Bivouac areas**

Many accidents occur in bivouac areas (especially at night) and most are due to violation of existing standards and complacency. Commanders must enforce discipline in bivouac areas to minimize accidents and provide procedures for—

- a. Site selection.
- b. Camouflage.
- c. Field sanitation.
- d. Generators.
- e. Field mess operations.
- f. Storage of flammable.
- g. Fire extinguishers.
- h. Grounding of equipment.
- i. Restriction and/or control of motor vehicles.

**13–11. After action reports**

Document hazards encountered and controls used to control them, as well as how safety planning could have been improved to better serve the mission.

## Chapter 14 Safe Cargo Operations

### 14-1. General

This chapter establishes safety requirements for cargo operations by all transport modes during routine transport and deployment/redeployment operations.

### 14-2. Maximizing safety in cargo transport operations

a. Cargo preparation operators will be trained in material compatibility rules, packaging procedures, and package marking and labeling appropriate to the material and transport mode.

b. Cargo loading operators will be trained in—

- (1) Controlling transport unit weight and balance.
- (2) Cargo securing techniques appropriate to the material, packaging configuration, transport unit being loaded, and the transport mode. Materials appropriate to the job shall be provided.

c. Personnel handling cargo that qualifies as HAZMAT will also—

(1) Receive general safety training concerning properties and hazards of HAZMAT, the procedures to take in the event of a leak or spill, and specific details of their duties in accordance with the transportation modes to be used.

(2) Be assigned duties only for which they are specifically trained.

(3) Perform duties in accordance with the applicable national or international transportation mode regulations for the journey. Within the CONUS, 49 CFR applies. Outside the United States, international regulations and HN regulations apply. Commanders must ensure that individuals assigned HAZMAT tasks have ready access to current regulations required to perform their duties. Generally, the governing regulations are—

(a) 49 CFR for CONUS transports.

(b) The IMDG-Code for sea transport.

(c) Air Force Joint Manual 24-204 (TM 38-250) for military air transport.

(d) International Air Transport Association Dangerous Goods Regulation for commercial air transport.

(4) Package, mark, label, load, and placard the transport unit in accordance with the applicable mode regulation.  
d. Commanders do not have the authority to risk assess statutory requirements concerning vehicle loads, especially concerning HAZMAT. An exemption or competent authority approval must be obtained prior to using alternative procedures.

e. A vehicle driver has the authority to refuse a load that he or she believes violates any safety provision for which he or she may be held liable during the journey.

f. For assistance—

(1) The SDDC provides guidance publications supporting cargo loading at <http://www.tea.army.mil/DEP/TRANSPORT/modes/default.htm>.

(2) The Defense Ammunition Center provides certification training and computer-based HAZMAT familiarization training at <https://www3.dac.Army.mil/AS/>.

(3) A HAZMAT training center located at Aberdeen Proving Grounds, MD, also provides training on how to handle HAZMAT.

### 14-3. Railhead, port, supercargo, and escort operations

a. *Specific operations.* Commanders and other leaders who are planning or conducting these operations will use the information in DA Pam 385-30 to help them assess hazards and risks.

b. *Simultaneous operations.* Many of these operations require maneuvering in tight spaces with multiple simultaneous operations in the immediate vicinity. Personnel assigned to operate vehicles and materials handling equipment (MHE) shall be trained, licensed, and experienced. Ground guides will be used and will be conspicuous by lighting or color.

c. *Railhead operations.*

(1) A railhead safety officer and safety NCO will be appointed.

(2) Commanders shall implement a railhead certification program for units assigned to rail loading operations, with assistance of local movement control or rail personnel.

d. *Port operations.*

(1) A port operations safety officer and safety NCO will be appointed.

(2) Personnel involved in port operations shall be trained in their respective duties and the hazards involved in the operating area.

e. *Supercargo operations.*

(1) Supercargoes refers to unit personnel who will be designated on orders by deploying units to accompany, supervise, maintain, and guard unit equipment aboard a ship or vessel. An essential part of their job is to monitor and adjust equipment lashings and tiedowns, control access to cargo, document items that cannot be repaired en route, and

to brief the port commander at the seaport of debarkation on vehicle conditions and any unusual circumstances concerning the cargo. Supercargoes may also provide maintenance support and liaison during cargo reception at the seaport of embarkation and during ship loading and discharge operations.

(2) Supercargoes carrying weapons will be briefed on specific rules of engagement and operate under the agreement between the Government and the ship's captain.

(3) The ship's captain is the ultimate authority on the ship and his or her orders must be obeyed. The first mate is the captain's designated operations officer. Problems will be reported to the first mate (see FM 55-50 and FM 55-60 for supercargo operations information and a generic risk assessment).

*f. Escort operations.*

(1) Escorts, similar to supercargoes, will be designated on orders by deploying units to accompany, supervise, maintain, and guard unit equipment aboard a vehicle or train. Escorts aboard trains will be briefed in accordance with FM 55-21 concerning rail specific hazards.

(2) Escorts shall not climb on equipment loaded on rail cars once the car has been prepared for movement.

(3) Escorts carrying weapons will be briefed on specific rules of engagement and operate under the agreement between the Government and the HN.

#### **14-4. Ammunition and explosives transport requirement excerpts for continental United States transport**

*a.* Vehicles used to transport ammunition and explosives must either be a completely enclosed van type or be equipped with side stakes with the cargo protected by a tarpaulin or canvas top that completely covers the load.

*b.* Cargo must be secured against movement in any direction.

*c.* Army vehicles transporting ammunition or explosives will be equipped with at least two Class 2-A 10BC or equivalent fire extinguishers.

*d.* Vehicle brakes will be set and at least one wheel chocked during all loading, unloading, and tiedown operations.

*e.* DA Pam 385-64 and FM 4-30.13 provide guidance in transporting captured enemy ammunition.

*f.* Emergency response information for ammunition or explosives (CONUS shipments only) will follow instructions on DD Form 836 (Dangerous Goods Shipping Paper/Declaration and Emergency Response Information for Hazardous Materials Transported by Government Vehicles) in the event of an accident involving HAZMAT. For materials shipped from CONUS to OCONUS and from OCONUS to CONUS, emergency response will be in accordance with the IMDG-Code. Emergency contact phone numbers for transportation information will be indicated on the shipping papers.

*g.* Transport of ammunition or explosives outside the United States is subject to additional and/or different international regulations and HN requirements.

#### **14-5. Biological agents and toxins transport requirement excerpts for continental United States transport**

*a.* Transporting select biological agents and toxins on DOD installations will be kept to a minimum and will be in accordance with this regulation, DA Pam 385-69, 42 CFR, 49 CFR 173, 9 CFR 121, as well as applicable DOT regulations and guidance pertaining to shipping containers, supporting documentation, and placarding of transportation vehicles.

*b.* Select biological agents and toxins will be secured or in the direct control of a biological personnel reliability program-certified individual while awaiting transportation.

*c.* Transport outside the United States is subject to additional and/or different international regulations and HN requirements and may be forbidden without specific permit.

## **Chapter 15 Aviation Safety Management**

### **15-1. Introduction**

This chapter—

*a.* Establishes the safety component of protecting the force as an integral part of Army aviation training and operations.

*b.* Provides responsibilities, policies, and duties for the integrating safety and CRM into existing command processes and in accordance with FM 5-19 and DA Pam 385-90.

### **15-2. Aviation safety policy**

*a.* Commanders, supervisors, and safety directors at all levels will comply with the following policies regarding the



aviation safety. Safety will be a prime consideration in all mission and training planning and operations, including wartime and contingency operations. Army aviation commanders will—

(1) Ensure that safety is a principal element in all aviation operations and will apply CRM procedures in each phase of the training-management cycle to identify hazardous conditions and correct shortcomings responsible for these conditions;

(2) Establish a written commander's safety philosophy that contains current safety goals, objectives, and values, and includes the philosophy in quarterly training guidance (annually for RC).

(3) Employ CRM to ensure that maximum combat power is available for use at the decisive point and time for successful operations. During planning and execution of aviation missions, commanders will integrate mission, enemy, terrain and weather, troops, time available, and civil considerations when applying CRM procedures to identify and control hazards, in accordance with FM 5-19.

(4) Ensure mission after action reports are conducted to assess the effectiveness of CRM and safe performance.

(5) Ensure compliance with DOD, DA, OSHA, National Fire Protection Association, and Environmental Protection Agency (EPA) safety standards and requirements. When conflict exists between the various standards, the more stringent will be applied.

(6) Develop and integrate safety goals, objectives, and values into appropriate training guidance based upon identifying the most probable and severe types of accidents expected and the most likely reasons (hazards) for these accidents.

(7) Ensure that all aviation units have SOPs that include subjects listed in DA Pam 385-90.

(8) Ensure that ASOs are not assigned duties that are not related to the safety component of protecting the force.

*b.* Each aircrew member is ultimately responsible for ensuring his or her own safety and for expeditiously advising the pilot in command that an unsafe practice is occurring or is about to occur.

### **15-3. Aviation Accident Prevention Surveys**

Commanders of all aviation units and aviation support facilities will conduct an Aviation Accident Prevention Survey (AAPS) annually, at a minimum. A survey of a functional area (or subarea) will be accomplished within 60 days of a new program manager being appointed. When possible, the Aviation Accident Prevention Survey should be administered from the battalion/squadron level consolidating the safety staff into a survey team and using supplemental expertise from outside the unit.

### **15-4. Command safety council and enlisted safety council**

A Command Safety Council and an Enlisted Safety Council (ESC), when directed by the commander, will each be designated in writing at battalion level and above. Councils will, at a minimum, meet quarterly to review risk control options, make risk-control-option decisions, and direct implementation of risk control options. The Command Safety Council and ESC may be combined as one council in units with a low density of officer or enlisted personnel, such as detachments and platoons. Commanders may consolidate councils (one Command Safety Council and one ESC) at no higher than battalion/squadron level.

### **15-5. Safety meetings**

Safety meetings will be conducted monthly for active Army and full-time RC units/facilities and quarterly for all others.

### **15-6. Operational hazard**

An operational hazard is any condition, action, or set of circumstances that compromises the safety of Army aircraft, associated personnel, airfields, or equipment. Operational hazards should be corrected at the lowest level possible. Operational hazards include inadequacies, deficiencies, or unsafe practices (see DA Pam 385-90). DA Form 2696 (Operational Hazard Report) will be used to record information about a hazardous condition.

### **15-7. Aviation hazard location map**

A detailed hazard location map covering the entire local area will be maintained current and posted for ready access by all crews. Hazards will be analyzed and prioritized in terms of accident severity and probability. Maps will be updated quarterly or as hazards are identified.

### **15-8. Foreign Object Damage Prevention Program**

*a.* A Foreign Object Damage Prevention Program will be established to find and correct potential hazards and to eliminate the causes of foreign object damage. The importance of reducing foreign object damage as a hazard to aircraft requires that all personnel (pilots, aircrew, maintenance, and ground support) constantly be aware of foreign object damage and take action to prevent this hazard to aircraft and personnel.

*b.* A unit foreign object damage prevention officer/NCO, other than the ASO, will be appointed to implement the unit foreign object damage prevention program.

### **15–9. Aviation life-support systems**

*a.* A unit aviation life-support systems program that ensures aircrews are provided with adequate aviation life-support systems (as prescribed by AR 95–1) will be developed and implemented. A qualified officer/NCO will be designated to manage the unit aviation life-support systems program.

*b.* Each aircrew member will have all required items of individual aviation life-support equipment. Each aircraft will be equipped with crew life-support equipment (kits or sets) required for the mission and environment. All life-support equipment will be maintained, inspected, and replaced in accordance with DA Pam 385–90.

### **15–10. Preaccident or preemergency planning**

*a.* A unit emergency plan will be prepared and maintained in accordance with DA Pam 385–90 and DA Pam 385–10.

*b.* The unit preaccident or preemergency plan will be rehearsed, reviewed, and its adequacy documented. The degree of response by elements in the emergency plan for a rehearsal can vary; however, an exercise requiring all elements to respond physically must be conducted at least annually.

*c.* The unit preaccident or preemergency plan should include procedures for response to and investigation of accidents where contractor maintenance supporting unit operations is involved in the accident and the Government has assumed all or some of the risk of loss in the contract.

*d.* In the event of an Army aircraft accident (Class A through Class C), all crewmembers and any other personnel who may have contributed to the accident will be quickly evacuated to medical facilities by aeromedical or ground ambulance for physical examinations and blood and urine testing in accordance with AR 40–8, AR 40–21, AR 40–501, AR 600–105, and DA Pam 385–40.

## **Part Three**

### **Supporting the Garrison and Industrial Base**

Part Three addresses those special Army Safety Program management functions that are appropriate to sustaining the Soldier and the Army civilian in garrison and industrial operations. The principles and concepts stated in this part apply to the Soldiers and Army civilians performing their noncombat role during training, contingency operations, and in field operations.

## **Chapter 16**

### **Occupational Safety and Health Program (Workplace Safety)**

#### **16–1. Introduction**

This chapter prescribes policy and responsibilities for implementing the OSHA program mandated by Federal or State regulations and to reduce risk of accidental losses, injuries, and occupational illness to the military and Army civilian workforce as required by EO 12196, 29 CFR 1960, and DODI 6055.1. The OSHA programs will be implemented in all Army operations (CONUS and OCONUS) with the exception of military-unique operations as defined below. Procedures for occupational or workplace safety are in DA Pam 385–10.

#### **16–2. Policy**

*a.* OSHA programs and national consensus standards shall be applicable to and integrated into all Army equipment, systems, operations, and workplaces (CONUS and OCONUS).

*b.* Military design, specifications, and deployment requirements will comply with OSHA standards where feasible. When no standard exists for military application or the application is not feasible, the Army component will apply mishap risk management component of CRM.

*c.* Military and Army civilian officials at each management level shall promote strong safety programs, safe working conditions, and safe performance to prevent accidents, injuries, and occupational illnesses.

*d.* All Army leaders at each echelon will develop and implement functions and written procedures as part of the Army Safety Program and the Army Occupational Health Program to fulfill the following Army and OSHA requirements:

- (1) Ergonomics.
- (2) Hazard communications.
- (3) Respiratory protection.
- (4) Personal protective equipment.
- (5) Materials handling training.
- (6) Bloodborne pathogens.
- (7) Confined space program.
- (8) Emergency action plans and fire prevention plans.
- (9) Fall protection.

- (10) Control of hazardous energy (lockout/tagout).
- (11) Process safety management.
- (12) Hazardous waste operations and emergency response (as applicable).
- (13) Chemical hygiene.
- (14) Inspecting and abating hazards.
- (15) Reporting of unsafe and unhealthful conditions.

*e.* The Army Safety Program and the Army Occupational Health Program shall be adequately funded to ensure effective implementation to reduce accidental losses in all workplace operations.

*f.* All personnel shall be trained on all aspects of the Army Safety Program and the Army Occupational Health Program at every level of the activity that affects their workplace.

*g.* DD Form 2272 (Department of Defense Safety and Occupational Health Protection Program) or equivalent poster will be posted in all workplaces, in places of easy access by employees.

*h.* All workplace hazards shall be addressed in accordance with the hazard control guidance.

### **16-3. Military unique**

*a.* Title 29 CFR 1960.2(i) defines military unique: “The term uniquely military equipment, systems, and operations excludes from the scope of the order the design of DOD equipment and systems that are unique to the national defense mission, such as military aircraft, ships, submarines, missiles, and missile sites, early warning systems, military space systems, artillery, tanks, and tactical vehicles; and excludes operations that are uniquely military such as field maneuvers, naval operations, military flight operations, associated research test and development activities, and actions required under emergency conditions.”

*b.* “The term includes, within the scope of the Order, Department of Defense, workplaces and operations comparable to those of industry in the private sector such as: Vessel, aircraft, and vehicle repair, overhaul, and modification (except for equipment trials); construction; supply services; civil engineering or public works; medical services; and office work.”

### **16-4. Installation level processes**

Processes will be developed at and for the installation level to—

- a.* Reduce risk of accidents, injuries, and occupational illness in installation operations.
- b.* Structure and resource installation safety offices to adequately support all functions required to plan, develop, coordinate, evaluate, and implement Army safety and occupational health programs in accordance with Federal and state statutes, DODI 6055.1 and this regulation.
- c.* Evaluate installation safety and occupational health programs annually.
- d.* Implement DA and OSHA policies and programs in the workplace to protect personnel, equipment, and facilities.
- e.* Train all personnel so they sufficiently and fully understand the purpose, policy, procedures, and responsibilities of the Army Safety Program and the Army Occupational Safety Program designed for the office or facility in which they work.
- f.* Ensure that workplaces are free from recognized hazards that are causing or are likely to cause death or serious physical harm.
- g.* Correct safety deficiencies that are likely to cause an accident, injury, or occupational illness.
- h.* Integrate safety priorities for hazard correction into the work control process.

### **16-5. Army commands, Army service component commands, direct reporting units, National Guard Bureau, and field operating agency level processes**

Processes will be developed at the ACOM, ASCC, DRU, NGB, and FOA level to—

- a.* Integrate OSHA and national consensus standards into military standards, tasks, techniques, and procedures as appropriate.
- b.* Emphasize and value the importance of workplace safety through the chain of command to the lowest level.

### **16-6. Voluntary Protection Program**

*a.* The purpose of OSHA’s Voluntary Protection Program (VPP) is to recognize and promote effective safety and health management practices in the workplace. Management and employees work together to ensure a safe and healthful workplace in coordination with OSHA regulations. The OSHA verifies that the program meets the VPP criteria, recognizes the site publicly, and removes the site from routine scheduled inspection lists.

*b.* Installations should employ the VPP criteria to demonstrate their commitment to protect Soldiers, Army civilians, and the public by providing a safe and healthful environment. The application guidelines are included in the VPP information kit (VPP Policies and Procedures Manual, TED 8.1a) that is available from the OSHA regional offices.

## Chapter 17 Workplace Inspections

### 17-1. Introduction

Under the OSH Act, employers are required to furnish each employee a place of employment that is free from recognized hazards that are causing or likely to cause death or serious physical harm. Workplace inspections are one method to identify hazards in work areas.

### 17-2. Intent

This chapter provides policy on Army Safety Program management with special emphasis on hazard recognition and workplace inspections. It implements the requirements of the OSH Act and prescribes DA policy to protect and preserve Army personnel and property against accidental loss, provides for safe and healthful workplaces, and assures regulatory compliance. It also provides for public safety incident reporting to Army operations and activities. Procedures and other guidance for workplace inspections and hazard reporting and recording are provided in DA Pam 385-10.

### 17-3. Policy

*a.* Supervisors are responsible for conducting periodic documented inspections of their work area to identify hazards. When hazards are reported by employees or identified through accident investigations and safety inspections, they will be evaluated and tracked. Once a hazard has been evaluated, prompt action is required to correct significant risk hazards.

*b.* Supervisors are to inform all personnel of Army safety and occupational health rules and regulations, to include the use of protective clothing and equipment provided for their protection. Supervisors are to ensure adherence to established procedures, taking appropriate disciplinary action where deemed necessary.

*c.* Employees, military and Army civilians, are responsible for complying with standard Army safety and occupational health rules, regulations, and standards; using and maintaining the personal protective clothing and equipment that has been provided for their safety; and reporting any unsafe or unhealthful working conditions and accidents to their immediate supervisor.

*d.* Management and employees will work together to identify and correct hazardous conditions in accordance with locally established procedures for correcting hazards (based on RACs on a worst-risk-first basis).

*e.* Employees have the right to request that an OSHA representative conduct an inspection if they believe hazardous conditions are present in the workplace. (Note that employees should contact the local Garrison/Installation Safety Office to resolve any safety hazards prior to contacting OSHA, but they are not required to do so.)

### 17-4. Application of mishap risk management component of composite risk management

The requirements of DA Pam 385-30 will be applied to the hazard assessment, prioritization, and correction.

### 17-5. Safety inspections

*a.* Each time the supervisor or an employee enters the workplace, they will conduct a visual safety inspection. Conducting inspections of this type will help integrate safety into the daily routine.

*b.* Formal documented inspections (for example, using a checklist) will be done periodically to ensure a complete and total evaluation of the workplace based upon the type and nature of the work as well as determining the PPE required.

*c.* Whenever possible, recognized hazards will be corrected on the spot.

*d.* Work orders or service orders for hazards that cannot be corrected on the spot are submitted to the safety office. All work orders for significant-risk hazards will go through the supporting safety office for addition to the hazard tracking system.

### 17-6. Standard Army safety and occupational health inspections requirements

*a.* Qualified safety and occupational health professionals or specially trained personnel competent to conduct the inspection, using the procedures outlined in DA Pam 385-10, will conduct workplace safety inspections at least annually.

*b.* Facilities and operations involving special hazards will be inspected more frequently as determined by qualified safety and occupational health personnel.

*c.* Army civilian personnel offices may request assistance in determining environmental differential pay or hazard pay cases. In these cases, qualified safety and health professionals will evaluate specific workplaces and conditions and provide a professional opinion as to the nature of the hazards and the required protective procedures.

*d.* Inspections of workplaces in contractor activities where fewer than 25 DA personnel are employed will be at the discretion of the Army Headquarters commander based on existing conditions. While no formal annual inspection is

required, Army Headquarters commanders are required to ensure the health and safety of their Army civilians working in contractor facilities.

*e.* Formal safety inspections are required using checklists provided by the local garrison safety office. Assistance can also be requested from the garrison safety office to develop a checklist for your organization.

*f.* These inspections for tenant activities will be conducted in accordance with the host garrison and tenant activity agreement.

*g.* Collateral duty safety personnel trained, qualified, and appointed in accordance with procedures in DA Pam 385–10 may perform these inspections for work sites. Collateral duty safety personnel should conduct their inspections based on the mission, risk, and commander's guidance. A qualified safety person, as defined in the glossary, will accompany them on at least one inspection per year to assure quality inspections are being conducted.

*h.* Personnel conducting these inspections will have access to diagnostic equipment and to personnel necessary to identify, document, and analyze the significance of the hazards discovered during the inspection. Current reference materials pertinent to the work site, such as standards, regulations, SOPs, hazard analyses/job hazard analysis, risk assessments, materiel safety data sheets, and technical and field manuals, will be readily available.

*i.* These inspections may be conducted with or without prior notice. No-notice inspections will be used when local safety and health personnel determine they will provide a significantly more meaningful assessment of actual operating conditions and practices. However, appropriate representatives of Army civilian employees and recognized employee organizations will be notified when management receives prior notice of an inspection.

*j.* A representative of the official in charge of a workplace and an authorized representative of Army civilian employees will be given the opportunity to accompany the inspector during the physical inspection of workplaces. Garrison and activity commanders, or their designated representative, may deny the right of accompaniment to any person who, in their judgment, will interfere with the inspection.

*k.* Follow-up inspections are essential to ensure that hazards have been corrected.

*l.* Safety and occupational health inspections will not be conducted in conjunction with any other visit or inspection.

#### **17–7. Notices of violations**

Notices of violations for RACs 1 and 2 hazards detected during Standard Army Safety and Occupational Health Inspections will be recorded on DA Form 4753 (Notice of Unsafe or Unhealthful Working Condition) or equivalent. All posted notices will describe the nature and severity, probability, and associated risk of the violation; the substance of the mishap risk management component of CRM plan; and interim protective measures.

*a.* Copies of each notice of unsafe or unhealthful conditions will be given to the appropriate official in charge of the workplace and any participating employee representative.

*b.* The official in charge of the workplace where the condition was discovered will post notices. Where it is not practical to post the notice at or near the hazard, it will be posted in a prominent place where all affected personnel will readily see it.

*c.* Delivery and posting will take place within 15 days of detection for safety violations and 30 days for health violations.

*d.* The notices will remain posted for 3 working days or until correction, whichever is later.

#### **17–8. Written reports of violations**

Written reports of violations resulting from Standard Army Safety and Occupational Health Inspections will be provided to the head of the activity or the commander of the unit inspected. These reports will cite hazards and safety management deficiencies and will recommend corrective actions.

#### **17–9. Army employee hazard reporting**

*a.* Follow the procedures for employee reports of hazards located in 29 CFR 1960.28, 29 CFR 1960.46, and DA Pam 385–10

*b.* Complete reports under these procedures on DA Form 4755 (Employee Report of Alleged Unsafe or Unhealthful Working Conditions) in accordance with DA Pam 385–10.

#### **17–10. Occupational safety and health inspections**

*a.* Inspection of contractor workplaces by Federal and State agencies will be accomplished according to DODI 6055.1 and 29 CFR 1960.

*b.* Workplace safety inspections and occupational health assessments may be in response to a complaint from an Army employee or employee representative; they may be scheduled as part of OSHA's annual evaluation of agency programs, OSHA target program, or in response to a fatal accident.

*c.* Federal and State OSH officials will be immediately admitted to conduct inspections at selected workplaces in a reasonable manner during normal working hours.

*d.* Federal and State OSH officials will initially report to the garrison commander or designated representative and will be accompanied at all times on the Army installation. They will be required to show proof of appropriate security



clearance if entry into closed areas is required. A closing conference with the garrison or activity commander or command designee will be arranged before the Federal and State OSH officials departure. Employee representatives will be invited to attend the opening and closing conferences.

*e.* Upon request, Federal and state OSH officials will be provided available safety and health information on work sites to be visited. Such information may include data on HAZMAT in use; copies of recent DOD inspection; or survey reports, accident reports, and abatement project information.

*f.* When Federal and State OSH officials issue notice of unsafe or unhealthful conditions (OSHA-2H Form), local officials should treat such notices in the same manner as similar internal notices and provide for abatement of significant deficiencies. Garrisons that receive an OSHA-2H will immediately transmit copies through command channels to Office of the Director of Army Safety (DACS-SF), 200 Army Pentagon, Washington, DC 20310-0200, and copy furnished to Commander, U.S. Army Combat Readiness/Safety Center (CSSC-PR), Bldg 4905, 5th Ave, Fort Rucker, AL 36362-5363.

*g.* Response to OSH inspection reports will originate at the local level. The OSHA officials will elevate unresolved conflicts through their channels to DOD. This provision, however, will not inhibit normal internal communication within command channels to apprise higher echelons of the results of OSH inspections and coordination of responses. With respect to investigating Army accidents, which is solely a DOD responsibility under EO 12196, Federal and State OSH officials may be shown or provided factual portions of pertinent accident investigation reports as outlined in DA Pam 385-40. Federal and state OSH officials, upon request, may also be authorized to accompany Army accident investigators in an observer status. Separate, duplicate OSH investigations of Army accidents, concurrent either with or subsequent to required Army investigations, are not expected. However, Federal and State OSH officials may inspect for residual hazardous conditions at the site of an Army accident.

## **Chapter 18 Industrial Operational Safety**

### **18-1. Introduction**

An effective safety program will improve industrial operational readiness and reduce costs. Industrial operations comprise activities that contribute to the development, testing, procurement, deployment and logistical support of Army equipment and weapon systems. The principles of this chapter will apply to civil works.

### **18-2. Policy**

Whenever possible, engineering controls will be used to eliminate hazards, and administrative controls will only be used whenever engineering controls are not feasible.

### **18-3. Acquisition of materials, equipment, facilities, and systems**

*a.* Acquisition of materials, equipment, facilities, and systems will comply with the requirements of chapter 9 of this regulation.

*b.* The acquisition of materials, equipment, facilities, and systems will maximize the use of engineering design to preclude unnecessary residual risk and control residual risks when design changes to remove risks are not feasible.

### **18-4. Preoperational planning**

Preoperational planning will be developed and promulgated as part of the planning for operations. The preoperational plan will identify hazards that may impact personnel safety and operations and the measures used to eliminate or control them.

*a.* The mishap risk management component of CRM will be used to identify and mitigate hazards and manage the associated risk with that activity. This requires that risk assessment, risk decisionmaking, and implementation of effective risk controls be part of the preoperational safety plan. Operational plans will incorporate preoperation safety briefings and training requirements as part of the plan.

*b.* Operational briefings and training will address identified hazards and their impact on operations.

### **18-5. Standing operating procedures**

*a.* Standing operating procedures will—

(1) Be developed for all hazardous operations in accordance with the requirements of DA Pam 385-10 and provide supervisors and operators with the level of detail necessary to execute the task or operation in an efficient, effective, and safe manner. Written standards (for example, work plans, internal operating plans, operating manuals, work instructions, FMs, and so forth) may be substituted for SOPs when they provide the level of detail necessary to execute the task or operation in an efficient, effective, and safe manner.

(2) Describe all necessary operational and safety and health requirements.

(3) Be reviewed and concurred with by SMEs within the executing organization and supporting organizations. At a minimum, SOPs will be reviewed annually or at change of command.

(4) Address emergency response procedures, required PPE, and equipment required to execute the operation safely.

*b.* Standing operating procedures and revisions will be based on the results of a complete composite risk assessment of all phases of the task or operation and resulting recommended controls.

*c.* Supervisors will—

(1) Train, observe, and enforce all requirements of the SOP.

(2) Read and indicate they understand all the requirements of the SOP relative to the operation and that it can be executed in an efficient, effective, and safe manner by following the SOP.

*d.* All employees will read and indicate they understand all the requirements of the SOP relative to their job and can execute it in an efficient, effective, and safe manner by following the SOP.

### **18–6. Accident prevention plans**

Supervisors will develop an accident prevention and response plan for each activity under their direct control and administration. Accident prevention plans shall—

*a.* Be site specific.

*b.* Be available to all personnel, in a common area accessible at all times, all shifts.

*c.* Be current, reflecting up-to-date procedures, work instructions, and emergency procedures.

*d.* Be trained and practiced with documentary evidence on file identifying the trainer, trainee, date trained, and date practiced.

*e.* Include detailed emergency procedures including alert and notification, evacuation and response, personnel accountability, and medical response.

*f.* Identify known or suspected hazards associated with each particular work instruction, work practice, and operating activity (for example, physical, chemical, biological, and ergonomic).

*g.* Identify required administrative, engineering, and PPE controls associated with each particular work practice, work instruction, and operating activity.

*h.* Assign a primary and alternate POC for training and providing documented work instruction, procedure, and/or exposure control equipment.

### **18–7. Training, licensing, qualification**

Supervisors will ensure and make a documented record of the review attesting that each employee has sufficient documented training, licensure, qualification, and experience prior to assigning said employee to a particular job or activity. Only licensed, trained personnel are authorized to operate machinery, motor vehicles, watercraft, and MHE.

### **18–8. Approved for testing**

Supervisors and operators will only use equipment and systems approved for testing of Army systems and verifying the accuracy of industrial processes. Calibration requirements will be in accordance with requirements established by the PM TMDE.

### **18–9. Preoperational walk-through**

A preoperational walk-through will be conducted for all hazardous operations to validate the SOP, provide operator training, and to ensure all hazards have been identified during all phases of normal operation and emergencies. They are highly recommended for other long-term operations as well.

### **18–10. Hazardous material**

Hazardous material will be stored in accordance with 29 CFR 1910.101 through 29 CFR 1910.126, Subpart H and National Fire Protection Association (NFPA) Code 30.

### **18–11. Personal protective equipment**

*a.* The mishap risk management component of CRM will be used and documented to identify the type of PPE required based on the materials and processes being used.

*b.* Employees will use PPE in accordance with 29 CFR 1910.132 through 29 CFR 1910.138, Subpart I, as required.

*c.* Personal protective equipment and training will be provided at no cost to the employee.

### **18–12. Fire protection**

*a.* Fire protection shall meet the requirements of 29 CFR 1910.155 through 29 CFR 1910.156, Subpart L and the National Fire Codes.

*b.* Fire protection plans shall be reviewed during the preoperational planning to ensure that they provide the level of protection necessary to address possible fires in the operation.

**18–13. Material handling and storage**

*a.* Supervisors will review all operations to identify where mechanical MHE can be used to eliminate excessive and repetitive manual material handling.

*b.* Operators will inspect all MHE prior to start of the operations to ensure current certification and that it meets the operation's requirements.

*c.* The rigger-in-charge will inspect all rigging equipment prior to start of the operations to ensure current certification and that it meets the operation's requirements.

**18–14. Machine safeguarding**

Supervisors will analyze all equipment to identify point-of-operation hazards and other hazards associated with moving belts and equipment and will provide guards or other means to protect operators and other personnel.

**18–15. Exits and egress**

Exits and egress will meet the requirements of 29 CFR 1910.33 through 29 CFR 1910.39, Subpart E; fire prevention plans; and NFPA 101.

**18–16. Lockout and/or tagout**

The control of hazardous energy (lockout and/or tagout) shall be developed for each piece of equipment being used and provided to personnel servicing and maintaining that equipment in accordance with 29 CFR 1910.147.

**18–17. After action reports**

After action reports are a significant part of the Army's process for documenting and sharing lessons learned. After action reports will be used to document all aspects of accident prevention and preoperational planning associated with industrial operations.

*a.* The after action report will be a factual statement of what worked or did not work and will contain recommendations for improvement in accident prevention planning for operations.

*b.* When used in conjunction with documenting an accident, the after action report will identify all factors that contributed to the accident, including both those that can be controlled (training of personnel, use of proper safety equipment, and so forth) and those beyond direct control (weather and so forth).

*c.* Appropriate recommendations shall be included in the after action report.

**Chapter 19****Emergency Planning and Response****19–1. Introduction**

This chapter prescribes DA safety policy for planning emergency response to save lives; protect the health and safety of the public, responders, and recovery workers; and to exchange information.

**19–2. Policy**

*a.* The CRM will be applied to all emergency response scenarios to identify the required, appropriate equipment and response procedures to increase efficiency and effectiveness. This is to eliminate controlling adverse and risky conditions that will degrade emergency response operations.

*b.* The National Response Plan and the National Incident Management System contain mechanisms for expedited and proactive Federal, State, local Government support to ensure that critical lifesaving assistance and incident containment capabilities are in place to respond quickly and efficiently to catastrophic incidents. The emergency preparedness standards prescribed in these sources as well as executive orders, presidential directives, National Incident Management System, and individual State/territory statutes, will be used together with this regulation to formulate an organization's emergency response plan.

*c.* In addition, the requirements of 29 CFR 1910.38 and 1910.39 will be complied with.

**19–3. Recovered chemical warfare material response**

The RCWM response emergency activities will be conducted to protect public and worker safety and health and the environment in accordance with applicable statutes and implementing regulations. Safety planning; coordinating with the EPA, State, and civilian authorities and responders; and community involvement will be priorities. The RCWM emergency response activities will be conducted in accordance with DA Pam 385–61, the National Oil and Hazardous Substances Pollution Contingency Plan, and the EOD 60–series publications unless actions are part of an approved site-specific emergency response plan.

#### **19-4. Biological warfare material response**

Biological warfare material emergency response activities will be conducted to protect public and worker safety and health and the environment in accordance with DA Pam 385-69, applicable statutes, and implementing regulations. Safety planning; coordinating with the EPA, State, and civilian authorities and responders; and community involvement will be priorities.

#### **19-5. Munitions incidents and munitions of concern**

Unexploded ordnance emergency response activities will be conducted to protect public and worker safety and health and the environment in accordance with DA Pam 385-10, DA Pam 385-40, AR 385-63, and DA Pam 385-64, applicable statutes, and implementing regulations.

*a.* The commander of an installation or activity first learning of an accident/incident requiring DOD emergency response will immediately notify the AOC, providing all information required in DA Pam 385-10 and DA Pam 385-40 that is known at the time. The telephone numbers for the AOC are DSN 227-0218 or commercial (703) 697-0218.

*b.* The telephonic response will be promptly confirmed by priority/electronically transmitted message. The AOC message address is HQDA (MOCS-AOC), Washington, DC. This message will include the addresses listed in DA Pam 385-10 as information addresses for this notification.

#### **19-6. Concept of operations**

*a.* For those events that rise to the level of an Incident of National Significance, the Department of Homeland Security provides operational and/or resource coordination for Federal support to on-scene incident command structures. The National Response Plan outlines in the National Incident Management System how the Federal Government implements the Robert T. Stafford Disaster Relief and Emergency Assistance Act (The Stafford Act). The Stafford Act outlines how the Federal Government will assist the local and State Governments when a disaster or emergency overwhelms their ability to respond effectively to save lives; protect public health, safety, and property; and restore their communities.

*b.* Support to civilian law enforcement officials by DOD personnel shall be pursuant to those authorities provided in 18 USC 112, 351, 831, 1116, 1751, and 1385 (also known as The Posse Comitatus Act) and DODI 3025.ff. Before any military law enforcement personnel (to include DA police officers or security guards) are utilized in any law enforcement or security capacity off an Army installation, coordination and approval will be obtained from the local SJA.

*c.* All incidents are handled at the lowest possible organizational and jurisdictional level. Police, fire, public health and medical, emergency management, and other personnel are responsible for incident management at the local level. The National Incident Management System provides a consistent nationwide template to enable, Federal, State, local, and tribal Governments and private sector and nongovernmental organizations to work together effectively and efficiently to prepare for, prevent, respond to, and recover from domestic incidents, regardless of cause, size, and complexity to include acts of catastrophic terrorism.

#### **19-7. Chemical, biological, radiological, and nuclear response**

*a.* Facilities in which CBRN defense activities are conducted will develop a written plan to safely and adequately respond to emergencies arising from catastrophic incidents.

(1) Plans and their supporting procedures will conform to the requirements stated in Federal, State, and local directives.

(2) A risk assessment will be conducted prior to developing the emergency response plan to ensure that all potential emergency hazards and situations are identified and mitigated. The risk assessment will also consider the types of PPE required and the types of training necessary to use it effectively.

(3) Facility staff will be included in the plan development process to the maximum extent possible to enhance comprehensiveness.

(4) Emergency and security personnel will be trained and equipped to cope with hazards that may be encountered in the performance of their duties.

(5) Training will be sufficient to enable personnel to function without waiting for guidance from supervisors.

*b.* Reporting will be in accordance with chapter 3 of this regulation and DA Pam 385-40. Further—

(1) For accidents involving the transportation of nuclear weapons, see AR 50-5.

(2) For accidents involving toxic chemical agents, see AR 50-6.

(3) For accidents involving radioactive and fissionable material, other than weapons, see DA Pam 385-24.

(4) For accidents involving biological agents, see DA Pam 385-69.

(5) For all other types of accidents, see the procedures in DA Pam 385-40.

*c.* Emergency response plans will include the following:

(1) Preaccident or preemergency planning.

(2) Personnel roles, lines of authority, and communications.

- (3) Responsibilities and training requirements for emergency responders (for example, supervisors, emergency room coordinator, and emergency response team members).
- (4) Emergency alerting and response procedures.
- (5) Personal protective equipment and emergency equipment.
- (6) Decontamination procedures.
- (7) Evacuation routes, procedures, and assembly points.
- (8) Procedures to account for employees.
- (9) Medical support requirements, emergency medical treatment, and first aid.
- (10) Incident facility security requirements.
- (11) Procedures for reporting incidents to local, State, and Federal Government agencies.
- (12) Names or job titles of persons or departments to be contacted for further information or explanation of duties under the plan.
- (13) Review of response and follow-up.

*d.* The facility emergency response plan will be reviewed at least annually and, as necessary, be amended to keep current with new or changing facility conditions or information.

*e.* Senior commanders and local, regional, State, and Federal emergency support and coordinating agencies (for example, law enforcement, fire departments, and health departments) will be informed of CBRN defense activities at Government-owned facilities. Agreements will be made with these agencies to identify and ensure the availability of support, including equipment and training, necessary to provide effective emergency response and to ensure compliance with applicable statutes and regulations and the facility emergency response plan.

- (1) Agreements must be in writing.
- (2) Agreements will be reviewed annually or upon a change in operations that could affect existing emergency response plans and updated as necessary.

(3) The emergency response plan will be compatible and integrated with the disaster, fire, and/or emergency response plans of the installation and local, State, and Federal agencies.

*f.* An employee alarm system will be installed in accordance with 29 CFR 1910.165 to notify employees of any necessary emergency action.

*g.* Emergency response plans will be exercised prior to adoption and at least annually thereafter to ensure the adequacy of response plans and responder training, responder familiarity with response procedures and equipment, the adequacy of support agreements, and the availability and adequacy of emergency equipment and medical support. Emergency response drills and exercises for biological operations will be conducted in accordance with DA Pam 385-69.

*h.* If a mishap results in a potential or confirmed exposure or release of a chemical agent, etiologic agent, or exposure or possible exposure to a radiation threat, emergency procedures will be immediately initiated to protect personnel and the environment and to limit the spread of contamination. Hazardous conditions created by the emergency shall be eliminated and the affected areas will be decontaminated before normal operations are resumed. Medical surveillance will be initiated as soon as possible for all individuals present in the potentially affected area at the time of the mishap (see chap 3 for mishap reporting).

*i.* The SOPs will address emergency procedures related to any mishap involving HAZMAT, including biological program etiologic agents. Notification and evacuation procedures will be covered in detail, as well as measures to contain the HAZMAT and contamination. Local, regional, State, or Federal emergency support and coordinating agencies, such as law enforcement, fire departments, health departments, and Governments will be informed of HAZMAT activities, including biological programs. They will be informed of the appropriate support necessary, to include any equipment and training necessary, to provide effective emergency response and ensure compliance with community “right-to-know” statutes and regulations. Agreements with external agencies must be formalized. If a mishap with a HAZMAT, including a chemical agent or biological program etiologic agent, results in personnel exposure, approved emergency procedures will be immediately initiated to protect personnel and the environment and to confine the HAZMAT and constrain the spread of contamination. All personnel except those responsible for emergency operations will evacuate the immediate area. Special medical surveillance will be started as soon as possible for all workers present in the potentially affected area at the time of the mishap.

*j.* All activities with a chemical mission, in coordination with the host installation, will establish a central control point to coordinate all chemical agent emergency activities and conduct periodic exercises of the emergency response plans.

### **19-8. Aviation emergency planning**

*a.* Commanders of installations with aviation operations will develop a detailed, written, preaccident or preemergency plan specifying duties, responsibilities, and immediate actions for personnel involved in accident notification procedures, search and rescue, accident investigation, and equipment recovery.

*b.* Installations without aviation safety staff will request assistance from the regional IMCOM safety office.



c. The IMCOM safety office will coordinate with aviation units as per local agreements. Commanders will coordinate the support requirement upon receiving the request for support.

## **Chapter 20**

### **Biological Safety**

#### **20–1. Introduction**

a. This chapter establishes DA safety policies and procedures for the use, handling, transportation, transfer, storage, and disposal of infectious agents and toxins (IAT) rated at BSL–2 and above used in microbiological activities in permanent or temporary clinical laboratories, biomedical and biological research settings, microbiology teaching laboratories, and veterinary reference laboratories. These policies and procedures apply to all U.S. Army activities and facilities in which IAT are used, produced, stored, handled, transported, transferred, or disposed—to include the ARNG and the USAR, and to contractors and consultants conducting microbiological and biomedical activities for the Army. Policy and procedures for contractors required to possess or use Army- or DOD-provided IAT are covered in paragraph 20–15 of this regulation.

b. Army Headquarters employing mobile laboratories will develop specific procedures for the mobile laboratories' biosafety program and documentation. At a minimum, the program will include risk assessment, engineering controls (safety, health, and environmental), SOPs, hazard analyses, training (user and maintenance), and inspection, testing, validation, and maintenance requirements. Army Headquarters will submit mobile laboratories' biosafety policies to the ODASAF for review by the DABSHC.

c. DA Pam 385–69 contains minimum technical safety and occupational health requirements for developing management and control processes for biological operations involving IAT. Its implementation is mandatory.

d. Best practices and lessons learned collected from both Government and industry that serve as examples of how others have met challenges, introduced innovation, and advanced the science of biological safety are available from the DABSHC. Contact the ODASAF for additional information.

#### **20–2. General**

a. The transport, storage, handling, use, and disposal of IAT will occur in a manner that will not adversely affect the safety and health of employees, military personnel, visitors, the surrounding community, or the environment. The overarching principle for safety in biological activities is to minimize the potential exposure of personnel and the environment to IAT. Biological activities will be conducted using facilities, equipment, and procedures commensurate to the level of risk of the activity or the BSL. The minimum number of appropriately qualified and trained personnel will be engaged in the activity for the shortest period of time and with the minimum amount of material—consistent with program objectives and safe operations.

b. All testing of protective equipment or detection devices employing IAT will be conducted in appropriate BSL laboratories, chambers, or other facilities. All testing will be conducted using the least hazardous IAT consistent with mission objectives.

c. Field testing (open air) is restricted to the use of IAT simulants, unless the Secretary of Defense determines that testing is necessary for national security in accordance with 50 USC 1512.

#### **20–3. Biological safety programs**

a. Each Army Headquarters, major subordinate command, and agency conducting biological activities will include a biological safety section in their written Safety and Occupational Health Program prescribing responsibilities and procedures for implementing this chapter and DA Pam 385–69. When another military department, command, or agency conducting biological activity is a tenant on an installation, that organization shall coordinate its biological safety program with the senior commander.

b. The installation, institute, or activity's Safety and Occupational Health Program will include a biological occupational health element meeting the requirements of DA Pam 385–69.

#### **20–4. Mishap risk management**

a. The risks associated with biological activities will be assessed and documented and controls established (personnel training and qualification, procedures, containment equipment, and facility design) to contain IAT and to protect workers, support personnel, the environment, and laboratory products. DA Pam 385–30 can be used as a guide for mishap risk management.

b. A risk assessment will be completed and documented for every operation involving IAT. The principal investigator or immediate supervisor (whoever has the best understanding of the activities and risks) is responsible for conducting the risk assessment. This shall be done in close coordination with the safety and occupational health and other SMEs (for example, environmental, emergency response, security, facilities, and maintenance) and/or the facility safety committee to ensure compliance with established guidelines and regulations. The risk assessment will identify

controls (personnel training and qualification, procedures, containment equipment, maintenance, and facility design) to contain IAT and to protect workers, support personnel, the environment, and laboratory products. After completing the documented (base line) risk assessment, apply risk management cyclically and to continuously identify and assess hazards that were not identified as part of the initial assessment or that evolved during the operation or activity, develop and implement controls, and evaluate outcomes. Assess the implementation, execution, and communication of the controls, and assess accuracy of residual risk and effectiveness of controls in eliminating hazards and controlling risks.

*c.* The SOPs are required for every biological operation using IAT in accordance with this regulation and DA Pam 385–69. The SOPs will be based on the activity’s risk assessment. The SOPs will be readily available at the work location and designated personnel will maintain a copy of SOPs in a centralized location.

*d.* Workers and support personnel that have been designated or granted approval of facility access during IAT operations will be identified, and their health risk assessment will be reviewed in conjunction with all occupational health examinations or screenings.

## **20–5. Review of biological facilities**

*a.* For new construction or major modifications of Government biological facilities, the biosafety officer and/or safety and occupational health professionals at the facility or higher headquarters will review facility design safety controls for compliance with DA Pam 385–69 and provide comments to the appropriate design review or contracting agency (for example, Health Facilities Planning Agency). The USACE is the designer and construction agent for Army biological facilities.

*b.* Prior to initial use, containment (BSL–3) and maximum containment (BSL–4) laboratories will be validated for safe operation through a commissioning survey. The organization conducting the commissioning survey may be in-house or contracted but will be approved by U.S. Army Public Health Command and ODASAF (see DA Pam 385–69 for commissioning survey criteria). Commissioning surveys are in addition to preoperational surveys (see below).

## **20–6. Facility preoperational surveys**

*a.* Prior to start of operations at new BSL–2 facilities, a preoperational survey will be completed and approved by the Army Headquarters. The parent Army Headquarters will lead the preoperational survey. Preoperational survey teams will be composed of safety, industrial hygiene, and laboratory operations SMEs. This responsibility may be delegated to a major subordinate command. Surveys of clinical BSL–2 operations will be synchronized with the laboratory coming on line and conducted in a manner to ensure no disruptions in patient care.

*b.* Prior to start of operations at new biological BSL–3 and BSL–4 facilities or BSL–3 and BSL–4 facilities that have undergone major modification (defined as a modification affecting one or more commissioning certification criteria as listed in DA Pam 385–69), a preoperational survey will be completed and approved by the ODASAF. Preoperational survey teams will be led by a representative of ODASAF and composed of an industrial hygienist from USAPHC, an occupational medicine SME from the Office of the Surgeon General, and a safety and a laboratory operations SME from the appropriate Army Headquarters. The ODASAF is consulted if uncertain whether a modification requires a preoperational survey: depending on the scale and complexity of the modification, ODASAF may delegate the survey to the Army Headquarters or major subordinate command.

*c.* The preoperational survey will be conducted to evaluate implementation and effectiveness of the facility’s biosafety control measures and compliance with this regulation and DA Pam 385–69 to include simulation of selected operational and emergency response operations.

## **20–7. Containment**

*a.* Containment equipment will be used, in conjunction with personnel qualification and training and safe work practices and procedures, to minimize potential exposure of personnel and the environment to IAT.

*b.* Containment will be implemented to the maximum extent feasible and verified as effective. Personal protective clothing and PPE can be used in addition to primary barriers in accordance with risk assessments and the operation being performed.

*c.* Biological protocols and SOPs will maximize use of engineering and administrative controls to preclude or minimize the need for PPE.

*d.* The level and type of PPE required for biological activities will be based on the results of risk assessments and the criteria in DA Pam 385–69. The selection and training for use of PPE will be as specified in DA Pam 385–69.

*e.* Before beginning any IAT operation, a determination will be made that the hazards associated with the operation are under positive control, as defined in the applicable SOP and that the operation complies with the criteria of this regulation and DA Pam 385–69.

## **20–8. Special Immunization Program**

*a.* The Special Immunization Program has been established so that vaccines will be available for providing an additional level of protection to at-risk individuals involved in biological activities. The Special Immunization Program

uses licensed and unlicensed vaccines to protect at-risk Soldiers and Army civilian employees. The U.S. Army Medical Research and Materiel Command manages the Special Immunization Program.

*b.* Immunization with a licensed vaccine, or a statement of declination from the individual, may be required as a prerequisite for working with certain biological agents.

*c.* Unlicensed vaccines are given under investigational new drug (IND) protocols. Due to the investigational, unlicensed status and the limited availability of vaccines given under IND protocols, immunization with an IND vaccine is strictly voluntary and is limited to those individuals to whom the risk of their use has been fully analyzed and justified. Vaccines given under IND protocols are only to be used to provide an additional level of protection. They are not to be used in lieu of safe laboratory practices, agent containment, or PPE.

## **20–9. Training and information**

All personnel who work directly with or who otherwise have a potential for occupational exposure to IAT will receive training in accordance with chapter 10 of this regulation and DA Pam 385–69.

## **20–10. Inspections**

Government biological activities will be inspected in accordance with the requirements of DA Pam 385–69. Contract biological activities will be inspected in accordance with DA Pam 385–69 for each contract requiring the use of Army- or DOD-provided IAT.

## **20–11. Maintenance controls**

A continuing maintenance process will be implemented for equipment and facilities. The maintenance process at a minimum will address—

- a.* Identifying critical equipment and utility system components.
- b.* Inspecting, testing, certifying, maintaining, and documenting critical equipment and utility system operating components.
- c.* Investigating, reporting, and correcting equipment and utility system problems, failures, and user errors.
- d.* Ensuring maintenance personnel possess the necessary knowledge, skills, and qualifications to inspect, test, certify, and maintain critical equipment and utility systems.
- e.* Responding to equipment and utility system failures or disruptions.

## **20–12. Transportation of etiologic agents**

*a.* When transporting IAT, the agent will be prepared and/or certified for shipment by personnel who have successfully completed the 40-hour Transport of Biomedical Material Course offered by the U.S. Army Public Health Command or other DOD or Army-approved HAZMAT shipper certification course and appointed in writing by the activity or unit CDR or designated representative stating the scope of authority and expiration date.

*b.* Packaging, labeling, and shipping will be in accordance with applicable Federal, State, and local laws and regulations, to include DA Pam 385–69 and the following:

- (1) 7 CFR Part 331 (biological select agents and toxins (BSAT) only).
- (2) 9 CFR Parts 92, 94, 95, 96, 121, 122, and 130 (BSAT only).
- (3) 15 CFR Parts 730–774.
- (4) 42 CFR Parts 70 and 71
- (5) 42 CFR 73 (BSAT only).
- (6) 49 CFR, Vol 2, Chapter I.
- (7) International Air Transport Association Dangerous Goods Regulations.
- (8) International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air.
- (9) DTR 4500.9–R.
- (10) AR 50–1 (BSAT only) and Interim Guidance for the Shipment BSAT within the Army (BSAT only).
- (11) AFMAN 24-204(I)/TM 38-250/NAVSUP PUB 505/MCO P4030.19/DLAI 4145.3.

*c.* Transportation of IAT on installations will be in accordance with the DTR, Part II, Chapter 204, Paragraph C, Regulatory Requirements.

## **20–13. Disposal controls**

All cultures, stocks, and other potentially infectious materials are decontaminated before disposal using an effective method. Depending on where the decontamination will be performed, the following methods should be used prior to transport:

- a.* Materials to be decontaminated outside of the immediate laboratory must be placed in a durable leakproof container, maintained in the laboratory or designated storage area until it is transported.
- b.* Materials to be removed from the facility for decontamination must be packed in accordance with applicable

local, State, and Federal regulations.

*Note.* Disposal planning will be conducted during the risk assessment process (see para 20–4).

#### **20–14. Biological program safety studies and reviews**

Safety studies and reviews are conducted to assure that maximum safety and occupational health measures are implemented to prevent mishaps involving IAT. Any HQDA agency may recommend a special study or review of an infectious agent or toxin operation or safety control when it becomes necessary to investigate the condition or changes described below. The responsible HQDA agency will determine the scope and conduct the study or review. Special study activities will be coordinated with Office of the Director of Army Safety (DACS–SF), 200 Army Pentagon, Washington, DC 20310–0200 and will include an analysis of—

- a. Conditions or practices that may affect safety.
- b. Major system modifications including both design and physical configuration changes.
- c. Significant changes to safety, health, and environmental protection standards and requirements that affect biological operations.

#### **20–15. Contracting**

Contracting officers will ensure that Army biological safety clauses are made contractually binding on all contractors required to possess or use Army- or DOD-provided IAT, with the exception of clinical diagnostic, epidemiologic, and surveillance specimens.

- a. The contracting officer will designate a COR to monitor the contract.
- b. At the conclusion of the contract, the contractor will manage the final disposition of the IAT in accordance with the plan specified in the contract.
- c. The AMC and MEDCOM are jointly responsible for developing the biological safety contract clauses, including clauses for accident and incident investigation and reporting. The AMC and MEDCOM will ensure that such clauses are promulgated in accordance with FAR, subparts 1.3 and 1.4, Defense FAR supplement, Subparts 201.3 and 201.4, and the Army FAR supplement, subparts 5101.3 and 5101.4.
- d. Contract clauses will be maintained by ODASAF with assistance from the AMC and MEDCOM.
- e. Each contracting officer will ensure that contract facilities handling Army- or DOD-supplied IAT are preinspected per the appropriate checklist in DA Pam 385–69 and annually inspected for compliance with biological safety clauses and DA Pam 385–69.

## **Chapter 21 Chemical Agent Safety Management**

### **21–1. Introduction**

- a. This chapter prescribes DA safety policy and processes for the Army chemical agent safety function.
- b. This chapter applies to blister agents H, HD, HT, and L and to nerve agents GA, GB, GD, GF, and VX and other experimental chemical agents exhibiting toxicity similar to nerve and blister agents. This chapter does not apply to commercially available or produced chemicals or to RCWM.
- c. DA Pam 385–61 contains technical safety and occupational health requirements for developing management and control processes for operations involving chemical agents and associated weapons systems. Its implementation is mandatory. DA Pam 385–61 is a guide for contingency or tactical military operations and not mandatory.
- d. DA Pam 385–61, chapter 12, applies only to chemical agent training at the Chemical Defense Training Facility, at the U.S. Army Chemical School, Fort Leonard Wood, MO.
- e. Chemical agent waste associated with chemical agent facilities and operations, which does not meet the definition of clean, will be managed, stored, and shipped in accordance with existing laws and regulations to a permitted treatment, storage, or disposal facility whose permit allows receipt of such wastes.
- f. The requirements of DA Pam 385–61 do not apply to RDT&E solutions of chemical agents defined in AR 50–6 as RDT&E dilute solutions.
  - (1) The provisions contained in DA Pam 385–61 should be used as a guide in conjunction with a hazard analysis, SOPs, and good laboratory practices to ensure safe operations with RDT&E solutions.
  - (2) Each installation or activity conducting RDT&E solution operations must have a program document that describes how these operations will be conducted.

### **21–2. Applicability**

This chapter applies to activities and organizations with a mission involving chemical agents and applies during peacetime, wartime, contingency operations, training, exercises, and RDT&E.

**21–3. Application of composite risk management**

The requirements of DA Pam 385–30 are mandatory and shall be applied to this chapter and DA Pam 385–61.

**21–4. Chemical Demilitarization Program**

All aspects of the Chemical Demilitarization Program, including movement of munitions to the treatment facility or system and operation of the treatment facility or system, shall be based on public safety risk considerations instead of maximum credible events or other traditional risk assessment procedures. The Chemical Demilitarization Program uses risk assessment procedures governed by Federal statute, recommended by the Board on Army Science and Technology, and accepted by the Centers for Disease Control and Prevention.

**21–5. Chemical agent function**

As part of the Army Safety Program when required by an activity's mission, the chemical agent function will consist of management and control processes addressing the following key components in accordance with DA Pam 386–61:

- a.* Chemical agent air monitoring.
- b.* Chemical agent engineering controls and facility engineering design.
- c.* Occupational health.
- d.* Specialized PPE for chemical agent use.
- e.* Specialized training for chemical agent operations and support personnel.
- f.* Special procedures for chemical agent emergency response and preparedness.
- g.* Chemical agent recordkeeping.
- h.* Chemical agent transportation.
- i.* Chemical agent unique decontamination.
- j.* Special techniques for chemical agent storage.

## **Chapter 22**

### **Marine Activities**

**22–1. Introduction**

Leaders and managers will use the CRM process to establish and operate an effective marine activities safety program to include water operations, water activities, and civil work marine activities. Specific requirements for each of these program areas are provided in the following paragraphs.

**22–2. Water operations**

Operators will follow U.S. Coast Guard (USCG) and/or USACE guidance for safe operation of nontactical vessels and watercraft.

**22–3. Civil work marine activities**

Watercraft, engineer-peculiar equipment, and operations under jurisdiction of the USACE—to include dredging, navigation maintenance, survey, and park ranger waterborne patrol operations—shall meet the requirements in EM 385–1–1; ER 385–1–91; and EP 1130–2–500, chapter 7. For vessel design, USACE owned and operated vessels, plant, and equipment shall be of a design accepted by the USACE Marine Design Center and maintained in a seaworthy state, and equipped in accordance with the original design, USCG regulations, and USACE requirements found in EM 385–1–1 and EP 1130–2–500.

**22–4. Operator qualification**

Operators of nontactical Army vessels shall be licensed in accordance with AR 600–55 and, where applicable, by the USCG and/or USACE EM 385–1–1 for the specific type of vessel/equipment. Commands may impose more restrictive licensing requirements as needed.

**22–5. Protective equipment**

*a.* Personnel aboard nontactical vessels and floating plants or working on/over water shall wear personal flotation devices as prescribed by USCG, OSHA, and/or USACE guidance found in 46 CFR, 29 CFR, and EM 385–1–1 respectively. Personal flotation device use during tactical water operations will be in accordance with mission commander's guidance.

*b.* Throwable devices (ring buoys, life rings, and so forth) shall be provided on all vessels and floating plants in accordance with the USCG and EM 385–1–1, Section 5.



**22-6. Inspections**

Qualified personnel shall inspect all vessels and floating plants at least annually for seaworthiness and safe operating condition. Periodic inspections and tests shall assure that a safe operating condition is maintained.

**22-7. Preaccident or preemergency planning**

Prior to vessel or plant deployment, plans shall be prepared for response to marine emergencies such as fire, sinking, flooding, severe weather, man overboard, and HAZMAT incidents as outlined by USCG guidance and/or USACE EM 385-1-1, Section 19. Drills and exercises of these plans shall be conducted as stated in the guidance.

## **Chapter 23**

### **Medical Safety**

**23-1. Introduction**

The health care delivery industry requires strenuous activities to include lifting, pulling, sliding, turning of patients, transferring of patients, moving of equipment, and standing for long periods of time. Such requirements create environments conducive to accidents and injuries. This chapter provides—

*a.* The additional practices and procedures that constitute a safety program in Army MTFs and supplement other codes, standards, and laws.

*b.* Guidance for medical commanders, MTF safety personnel, supervisors, and other personnel in the hospital to provide a safe, functional, supportive, and effective environment for patients, staff members, and other individuals in the hospital.

**23-2. Policy**

An effective medical safety program must go beyond the minimum requirements found in the regulations, codes, and standards. Therefore, the requirements of Environment of Care Essentials for Health Care, published by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO), and DA Pam 385-80 are mandatory.

**23-3. Army Medical Safety Program Management**

*a.* The MTFs will comply with the host installation safety program.

*b.* Accident reporting and recordkeeping procedures and responsibilities for MTF's safety directors are defined in 29 CFR 1904, chapter 3 of this regulation, and JCAHO environment of care standards.

**23-4. Hospital safety**

*a.* The hospital commander has overall responsibility for safety in the MTF or hospital.

(1) A Safety and Occupational Health Advisory Council or an Environment of Care Committee will be organized with representation from the administration, PVNTMED service, medical staff, nursing staff, engineering and maintenance, emergency management, security, housekeeping, and nutritional care.

(2) The committee will meet regularly but not less than every other month and keep written minutes of its meetings.

(3) The findings of the committee and appropriate recommended corrective actions will be reported in the committee minutes and all minutes will be signed and approved by the hospital commander.

(4) If the MTF opts to have an Environment of Care Committee then the safety director will be an active member of the installation safety committee and report appropriate items of interest to the MTF at the bimonthly Environment of Care Committee meeting. Additionally, the safety director will convey safety items that the MTF addresses to the installation safety office.

*b.* The hospital will have written safety policies to include procedures for safety of patients and accident reporting procedures for patients, visitors, and staff.

*c.* Safety training.

(1) A safety orientation program will be provided for all new employees.

(2) Ongoing safety education will be provided by the supervisor for all employees and it will be documented.

(3) Educational programs will be developed for specific areas and activities within the hospital.

(4) All employees will be instructed by their supervisors as to the hazards inherent in their jobs and the safety rules pertaining to their specific duties.

(5) Education related to job hazards will be coordinated with occupational health personnel, the safety director, and the infection control nurse as appropriate.

*d.* The hospital will have a written policy that prohibits smoking in the hospital for staff or visitors. An exception may be made for patients in accordance with JCAHO environment of care standard.

### **23–5. Medical systems safety and health**

*a.* Significant safety and health exposures that are unique to MTFs can affect patients, visitors, and staff with potentially lethal consequences. The safety director will work with PVNTMED personnel, engineering, and maintenance personnel to coordinate the identification and elimination of hazards.

*b.* Hazards must be identified and abated.

(1) The MEDCOM facilities will use an automated program that keeps data for the hazard abatement program for MTFs.

(2) All findings will be entered in the violation inventory log.

(3) Any hazard that cannot be abated within 30 days will automatically have a hazard abatement plan developed along with a plan for improvement.

*c.* The Environment of Care Committee/Safety and Occupational Health Advisory Council will be briefed on all abatement activities.

### **23–6. Safety director functions**

The safety director will perform the following additional functions:

*a.* Coordinate and manage all aspects of the JCAHO environment of care standards.

*b.* Perform as the MTF fire marshal.

*c.* Ensure that the MTF has a Safety and Occupational Advisory Council/Environment of Care Committee. If the activity elects to have an Environment of Care Committee, the safety manager will be an active member of the host installation Safety and Occupational Health Advisory Council. The agenda will include the following elements;

(1) Accidents or incidents for patients, visitors, and staff.

(2) Hazard surveillance (environmental inspections).

(3) Staff training.

(4) Review of program content.

*d.* Ensure that management plans are developed for all seven elements of the Environment of Care Standard. The plan and/or program will be evaluated annually and submitted to the leadership for review and/or action.

*e.* Conduct fire drills for all personnel on all shifts at least quarterly.

(1) When deficiencies are found, training will be conducted on the spot to ensure safety of the patients, visitors, and staff.

(2) Fire drill reports will be completed and submitted to the Safety and Occupational Health Advisory Council/Environment of Care Committee.

*f.* Conduct hazard surveillance for all areas annually and semiannually for patient care areas. Additionally, conduct quarterly high interest and monthly spot inspections. These inspections will be documented and briefed at the Safety and Occupational Health Advisory Council/Environment of Care Committee.

*g.* Deficiencies from the inspection will be recorded on DA Form 4754 (Violation Inventory Log) and tracked until abated. Hazards that cannot be abated within 30 days will have a hazard abatement plan completed and tracked/ followed up every 30 days until abated.

*h.* Ensure all MTF personnel receive annual safety and fire training.

*i.* Document training provided.

## **Chapter 24 Facility Reuse and Closure**

### **24–1. Introduction**

Due to changing unit missions and relocations, it is often necessary to close an installation or a portion of an installation, or reuse a portion of an installation to support new and different missions.

*a.* This chapter establishes requirements that are necessary to—

(1) Document, identify, evaluate, and, where appropriate, remediate contamination resulting from past Army activities.

(2) Ensure immediate response to discoveries of biological warfare materiel, RCWM, and munitions and explosives of concern (MEC) from past DOD activities.

*b.* This chapter applies when responding to planned and unplanned discoveries of biological warfare materiel, RCWM, and MEC on active DOD installations, on installations awaiting realignment or closure under the Base Realignment and Closure (BRAC) Program, and at FUDS where the Army is the executive agent and prior Army installations.

(1) Comply with statutes, regulations, executive orders, and other legal requirements governing personnel and public safety.

(2) Transition no longer needed installations quickly, cost effectively, and efficiently supporting community reinvestment initiatives.

(3) Provide protection for workers, the public, and the environment during biological warfare materiel, MEC, and RCWM response activities and the conduct of response activities in accordance with safety and environmental laws and regulations.

## **24-2. Policy**

### *a. Preparing for closure or reuse of land.*

(1) When closing portions of an installation or reusing, the prior use of the land must be considered to ensure that its use does not endanger future operations, personnel, or the public.

(2) When the DOD decides to close a military base or facility, a decommissioning program will be conducted. The Army will not abandon a facility without developing a comprehensive program and documenting the program in a decommissioning plan that identifies any hazardous sites or waste, including chemical, explosives (radiological and biological) that may be present. Base/facility history and past mission of the facility or base will serve as guides during development of the decommissioning program plan.

### *b. Recordkeeping of risks.*

(1) During operations, a process will be established to maintain records of location and information, such as a material safety data sheet, hazard classifications, and so forth, on all used and stored HAZMAT, such as explosives, chemicals, and so forth.

(2) When facilities or areas undergo remediation, complete records of the actions involving cleanup of HAZMAT will be added to the record files.

(3) For each base closing, all risks associated with mitigation of identified hazards will be recorded and tracked until mitigated. An annual risk assessment report of progress and obstacles encountered will be provided to the ASA (IE&E). Any hazards discovered that were not included on the original decommissioning plan will be recorded and included in the tracking report. The decommissioning plan will be updated as required.

## **24-3. Closure requirements**

*a. Nuclear Regulatory Commission tests.* For sites where there is a possibility that radiological contamination may exist, the NRC will be requested to conduct testing to confirm the presence (or absence) of such contamination. The results of these tests will be included in the decommissioning program plan. Each hazard will be included in the risk assessment report and tracked until resolved.

*b. Environmental Protection Agency sampling.* Sampling in accordance with the EPA standards will be conducted when suspected contamination exists for hazards normally associated with environmental pollution. The results of this sampling will be documented in the decommissioning program plan. The results of this sampling and risk analysis testing will be documented in the appropriate remedial documents. Identified risk will be recorded in the risk assessment report and tracked until mitigated.

## **24-4. Munitions and explosives of concern**

*a.* Munitions and explosives of concern sites will be identified along with the type of ordnance or other explosives located within the boundaries of each site. The decommissioning program plan will include information on each site and the type of ammunition or explosives located thereon. All MEC will be handled and processed in accordance with DA Pam 385-64.

*b.* Disposition of ammunition, explosives, and propellants will be accomplished in accordance with a DDESB approved site plan.

*c.* The burying or dumping of ammunition, explosives, or propellants is not an approved method of disposal. Exceptions—the covering of military munitions with earth or other material to control fragments, blast, or noise during authorized destruction by detonation; and, the use of capping in-place “in-situ” of MEC when implemented as an engineered remedy under an authorized response action.

*d.* Agencies executing munitions responses will submit an after action report through USATCES to DDESB. The DDESB Secretariat will raise any issues that require resolution before land transfer or an alternative use can proceed (see DA Pam 385-64, chap 8).

## **24-5. Recovered chemical warfare material**

*a.* Suspect chemical warfare materiel may be discovered during Army restoration and remediation activities at active installations, BRAC sites, and FUDS. As the DOD executive agent for chemical warfare materiel, the Army is responsible for the safe, timely, and effective response to discoveries of this materiel.

*b.* For RCWM response activities, safety procedures and standards will be in accordance with this regulation, AR 50-6, and DA Pam 385-61.

*c.* Recovered substances not meeting the definition of RCWM will be considered and treated as industrial chemicals and/or hazardous waste, not RCWM. Standards for recovery and disposition of such substances shall be in accordance

with 29 CFR 1910.120, 40 CFR 260 through 40 CFR 279, and/or 40 CFR 300, and where applicable, equivalent State regulations.

*d.* The objectives of RCWM response activities are the safe, timely, and effective mitigation of public and environmental health and safety hazards posed by the materiel, in compliance with statutory and regulatory requirements and in coordination with Federal, state, and local authorities.

*e.* The Army will maintain a database of those locations where RCWM was (or where it was suspected to have been) manufactured, tested, stored, deployed, or disposed.

*f.* A comprehensive public affairs effort is essential for all RCWM response activities. For these activities, an effective public affairs plan will be initiated as soon as practicable by the lead agency responsible for the site in coordination with all participating organizations (ACOM, ASCC, DRU, CMA, 20<sup>th</sup> U.S. Army Support Command (Chemical, Biological, Radiological, Nuclear, and High Yield Explosives) (20th SUPCOM (CBRNE)), and DA). All communications with the public and the media regarding response activities will be coordinated, shared, and disseminated through appropriate public affairs channels.

*g.* For emergency response activities, the on-scene coordinator will specify the public affairs responsibilities.

*h.* For remediation activities on active installations, the ACOM, ASCC, DRU, NGB, or FOA will specify the public affairs responsibilities. For remediation activities on FUDS projects, USACE will specify the public affairs responsibilities.

*i.* The 20<sup>th</sup> SUPCOM and the CMA will support public affairs efforts and be intimately involved in the development and release of information to the public dealing with RCWM recovery, transport, and disposal.

*j.* It is recommended that all Army public affairs offices obtain environmental and health risk communication training to prepare them to conduct basic public involvement activities during a chemical warfare materiel response phase.

*k.* The unplanned discovery of actual or suspected chemical warfare materiel will be reported by the site custodian per chemical event reporting procedures specified in AR 50–6, chapter 11.

*l.* For chemical warfare materiel discovered on military facilities, the senior commander will initiate the required chemical event report.

*m.* The USACE will initiate chemical event reports for chemical warfare materiel discovered incidental to Defense Environmental Restoration Program projects at FUDS.

*n.* The 20<sup>th</sup> SUPCOM will initiate the required chemical event reports in situations where custodianship is in doubt.

*o.* The site custodian will report recovery of actual chemical warfare materiel to the National Inventory Control Point for reporting under applicable treaties.

#### **24–6. Contaminated structures**

For DA/DOD structures in which operations or research activities involving chemical agents, toxic industrial chemicals, biological warfare agents, ammunition, explosives, nuclear reactors, and/or radioisotopes were conducted, DA/DOD will sample, assess, mitigate, clear, and archive actions taken to correct hazardous conditions in accordance with DOD 6055.9–STD, DA Pam 385–24, DA Pam 385–61, and DA Pam 385–64.

## Appendix A References

### Section I Required Publications

#### AR 385-63

Range Safety (Cited in paras 1-5*c*(12), 5-1*d*, 19-5.)

#### DA Pam 385-10

Army Safety Program (Cited in paras 1-4*x*(15), 1-6 Note, 2-1*a*, 2-2, 2-3, 2-6*b*, 2-7*j*, 2-9, 2-10, 2-11*a*, 2-17*a*(4), 4-1*b*, 4-2*b*, 4-2*e*, 6-2*b*, 6-10, 8-3, 10-10, 15-10*a*, 16-1, 17-2, 17-6*a*, 17-6*g*, 17-9*a*, 17-9*b*, 18-5*a*(1), 19-5, 19-5*a*, 19-5*b*.)

#### DA Pam 385-16

System Safety Management Guide (Cited in paras 1-4*dd*(1), 1-4*dd*(4), 2-22*c*, 9-4, 9-5, 9-9*c*, 9-9*g*, 9-11, 9-12.)

#### DA Pam 385-24

The Army Radiation Safety Program (Cited in paras 1-4*q*(18), 1-4*q*(19), 1-4*q*(21), 1-4*bb*(7), 7-1*b*, 7-4, 10-10*a*, 19-7*b*(3), 24-6.)

#### DA Pam 385-30

Mishap Risk Management (Cited in paras 5-3*e*, 5-4*b*(1), 5-5*c*, 9-5, 14-3*a*, 17-4, 20-4*a*, 21-3.)

#### DA Pam 385-40

Army Accident Investigations and Reporting (Cited in paras 1-4*y*(15), 1-6 Note, 3-2, 3-6, 3-8*b*, 3-8*b*(4)(*a*), 3-14*a*, 3-14*e*, 3-15*c*, 3-15*g*, 3-25, 3-30, 3-31, 4-2*i*, 15-10*d*, 17-10*g*, 19-5, 19-5*a*, 19-7*b*, 19-7*b*(5).)

#### DA Pam 385-61

Toxic Chemical Agent Safety Standards (Cited in paras 1-4*g*(20), 1-4*p*(12), 1-4*p*(13), 2-20*b*, 5-6*c*(3)(*a*), 5-6*c*(5), 10-10*c*, 19-3, 21-1*c*, 21-1*d*, 21-1*f*, 21-1*f*(1), 21-3, 24-5*b*, 24-6.)

#### DA Pam 385-64

Ammunition and Explosives Safety Standards (Cited in paras 1-4*ii*(1), 1-4*ii*(4), 2-21*b*, 5-1*b*, 5-2*b*, 5-3, 5-3*h*, 5-4*b*(1), 5-4*c*, 5-5, 5-5*a*, 5-5*b*, 5-5*c*, 5-6*c*(3)(*a*), 5-6*c*(5), 5-7*a*, 5-7*d*, 5-8*a*, 10-10*b*, 14-4*e*, 19-5, 24-4*a*, 24-4*d*, 24-6.)

#### DA Pam 385-65

Explosives and Chemical Site Plan Development and Submission (Cited in paras 2-21*b*, 5-4*b*(1), 5-6*c*(3)(*a*), 5-6*c*(5), 5-8*a*.)

#### DA Pam 385-69

Safety Standards for Microbiological and Biomedical Laboratories (Cited in paras 2-19*b*, 10-10*d*, 14-5*a*, 19-4, 19-7*b*(4), 19-7*g*, 20-1*c*, 20-3*a*, 20-3*b*, 20-4*c*, 20-5*a*, 20-5*b*, 20-6*b*, 20-6*c*, 20-7*d*, 20-7*e*, 20-9, 20-10, 20-12*b*, 20-15*e*.)

#### DA Pam 385-80

Hospital/Medical Facility Safety Management (Cited in para 23-2.)

### Section II Related Publications

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

#### AR 11-34

#### ANSI (American National Standards Institute) Safety Code N13.30

Performance Criteria for Radio Bioassay (May be purchased online <http://www.ansi.org>.)



**ANSI (American National Standards Institute) Safety Code Z136.1**

Standard for Safe Use of Lasers

**ANSI (American National Standards Institute) Safety Code Z87.1**

Occupational and Educational Personal Eye and Face Protection Devices (Available for purchase at <http://webstore.ansi.org/RecordDetail.aspx?sku=ANSI%2FASSE+Z87-.1-2003.>)

The Army Respiratory Protection Program

**AR 15-6**

Procedures for Investigating Officers and Boards of Officers

**AR 20-1**

Inspector General Activities and Procedures

**AR 27-20**

Claims

**AR 40-5**

Preventive Medicine

**AR 40-8**

Temporary Flying Restrictions Due to Exogenous Factors Affecting Aircrew Efficiency

**AR 40-10**

Health Hazard Assessment Program in Support of the Army Acquisition Process

**AR 40-13**

Medical Support-Nuclear/Chemical Accidents and Incidents

**AR 40-21**

Medical Aspects of Army Aircraft Accident Investigation

**AR 40-66**

Medical Record Administration and Health Care Documentation

**AR 40-400**

Patient Administration

**AR 40-501**

Standards of Medical Fitness

**AR 50-5**

Nuclear Surety

**AR 50-6**

Chemical Surety

**AR 50-7**

Army Reactor Program

**AR 58-1**

Management, Acquisition, and Use of Motor Vehicles

**AR 70-1**

Army Acquisition Policy

**AR 70-62**

Airworthiness Qualification of Aircraft Systems

**AR 73-1**

Test and Evaluation Policy

**AR 75-1**

Malfunctions Involving Ammunition and Explosives

**AR 95-1**

Flight Regulations

**AR 95-30**

Participation in a Military or Civil Aircraft Accident Safety Investigation

**AR 190-5**

Motor Vehicle Traffic Supervision

**AR 200-1**

Environmental Protection and Enhancement

**AR 350-1**

Army Training and Leader Development

**AR 360-1**

The Army Public Affairs Program

**AR 405-10**

Acquisition of Real Property and Interests Therein

**AR 420-1**

Army Facilities Management

**AR 600-3**

The Army Personnel Development System

**AR 600-55**

The Army Driver and Operator Standardization Program (Selection, Training, Testing, and Licensing)

**AR 600-105**

Aviation Service of Rated Army Officers

**AR 690-11**

Use and Management of Civilian Personnel in Support of Military Contingency Operations

**AR 750-1**

Army Materiel Maintenance Policy

**AR 750-6**

Army Equipment Safety and Maintenance Notification System

**AR 750-10**

Army Modification Program

**AR 750-43**

Army Test, Measurement, and Diagnostic Equipment

**British Standards Institute Standard 6658:1985**

Specification for Protective Helmets for Vehicle Users, November 1985 (Available for purchase at <http://www.bsi-global.com/en/>.)

**Code of Federal Regulations (CFR)**

Available at <http://www.gpoaccess.gov/cfr/index.html>.

**7 CFR**

Agriculture

**9 CFR**

Animals and Animal Products

**10 CFR**

Energy

**18 CFR 112, 351, 831, 1116, 1751, and 1385**

The Posse Comitatus Act

**15 CFR**

Commerce and Foreign Trade

**29 CFR 1910.38**

Emergency action plans

**29 CFR 1910.39**

Fire prevention plans

**29 CFR 1910.120**

Hazardous waste operations and emergency response

**29 CFR 1910.147**

The control of hazardous energy (lockout/tagout)

**29 CFR 1910.165**

Employee alarm systems

**29 CFR 1910, Subpart E**

Means of Egress

**29 CFR 1910, Subpart H**

Hazardous Materials

**29 CFR 1910, Subpart I**

Personal Protective Equipment

**29 CFR 1910, Subpart L**

Fire Protection

**29 CFR 1960**

Basic Program Elements for Federal Employee Occupational Safety and Health Programs and Related Matters

**32 CFR**

National Defense

**36 CFR, Chapter III**

Corps of Engineers, Department of the Army

**39 CFR**

Postal Service

**40 CFR**

Protection of Environment

**42 CFR**

Public Health

**48 CFR**

Federal Acquisition Regulations System

**49 CFR**

Transportation

**DA Pam 25-40**

Army Publishing: Action Officers Guide

**DA Pam 40-8**

Occupational Health Guidelines for the Evaluation and Control of Occupational Exposure to Nerve Agents GA, GB, GD, and VX

**DA Pam 40-11**

Preventive Medicine

**DA Pam 40-18**

Personnel Dosimetry Guidance and Dose Recording Procedures for Personnel Occupationally Exposed to Ionizing Radiation

**DA Pam 40-173**

Occupational Health Guidelines for the Evaluation and Control of Occupational Exposure to Mustard Agents H, HD, and HT

**DA Pam 40-501**

Hearing Conservation Program

**DA Pam 50-5**

Nuclear Accident or Incident Response and Assistance (NAIRA) Operations

**DA Pam 385-1**

Small Unit Safety Officer/NCO Guide

**DA Pam 385-63**

Range Safety

**DA Pam 385-90**

Army Aviation Accident Prevention Program

**DA Pam 690-43**

A Supervisors Guide to Career Development and Counseling for Career Program Employees

**DA Pam 690-47**

DA Civilian Employee Deployment Guide

**DA Pam 738-751**

Functional Users Manual for the Army Maintenance Management System-Aviation (TAMMS-A)

**DA Pam 750-8**

The Army Maintenance Management System (TAMMS) Users Manual

**DOD 4145.26-M**

DOD Contractors' Safety Manual for Ammunition and Explosives

**DOD 4500.36-R**

Management, Acquisition and Use of Motor Vehicles

**DOD 6055.09-STD**

DOD Ammunition and Explosives Safety Standards

**DODD 4715.12**

Environmental and Explosives Safety Management on Operational Ranges Outside the United States

**DODD 6055.9E**

DOD Explosives Safety Management and the DOD Explosives Safety Board

**DODI 3025.ff**

Defense Support of Civilian Law Enforcement Agencies

**DODI 5000.02**

Operation of the Defense Acquisition System

**DODI 6055.1**

DOD Safety and Occupational Health (SOH) Program

**DODI 6055.04**

DOD Traffic Safety Program

**DODI 6055.07**

Accident Investigation, Reporting, and Record Keeping

**DODI 6055.11**

Protecting Personnel from Electromagnetic Fields

**DODI 6055.15**

DOD Laser Protection Program

**DODI 6490.03**

Deployment Health

**Domestic Mail Manual**

(Available at <http://www.usps.com/welcome.htm>.)

**DOT Federal Motor Vehicle Safety Standard No. 218**

(Available at <http://www.nhtsa.gov/cars/testing/comply/fmvss218/>.)

**DTR 4500.9-R**

Defense Transportation Regulation-Part II Cargo Movement

**EM (Engineer Manual) 385-1-1**

Safety-Safety and Health Requirements (Army Construction Safety Standards) (Available at <http://www.usace.Army.mil/>.)

**EP (Engineer Pamphlet) 1130-2-500**

Project Operations-Partners and Support (Work Management Guidance and Procedures) (Available at <http://www.usace.Army.mil/>.)

**ER 385-1-91**

Safety-Training, Testing, and Licensing of Boat Operators

**EO 12196**

Occupational Safety and Health Programs for Federal Employees (Available from <http://www.archives.gov/>.)

**EO 13043**

Increasing Seat Belt Use in the United States

**FAR 52.236-13**

Accident Prevention (Available from <http://www.arnet.gov/far/>.)



**FECA (Federal Employees Compensation Act)**

(Available at U.S. Department of Labor, Worker's Compensation <http://www.dol.gov/owcp/regs/compliance/ca-feca.htm>.)

**FM 3-0**

Operations (Available from <http://www.apd.army.mil/>.)

**FM 4-01.011**

Unit Movement Operations

**FM 5-0**

The Operations Process

**FM 5-19**

Composite Risk Management

**FM 10-67-1**

Concepts and Equipment of Petroleum Operations

**FM 21-20**

Physical Fitness Training

**FM 21-60**

Visual Signals

**FM 21-305**

Manual for the Wheeled Vehicle Driver (Available from <https://atiam.train.army.mil/>.)

**FM 55 (Series)**

Transportation

**FM 55-30**

Army Motor Transport Units and Operations

**FMVSS 218**

Federal Motor Vehicle Safety Standard

**HSPG (Highway Safety Program Guidelines) Number 1, 4, 8, 20**

(Available at <http://www.nhtsa.gov/nhtsa/whatsup/tea21/tea21programs/>.)

**IATA (International Air Transport Association)**

Dangerous Goods Regulations, Restricted Articles Tariff 6-D, 47th Edition. (Available at <http://www.iata.org/index.htm>.)

**Joint Commission on Accreditation of Healthcare Organizations (JCAHO)**

(Available at <http://www.jcaho.org/>.)

**Joint Publication 3-11**

Operations in Chemical, Biological, Radiological, and Nuclear (CBRN) Environments. Available at <http://www.dtic.mil/doctrine/>.

**Leader**

(Available at <https://crc.army.mil/>.)

**Manual on Uniform Traffic Control Devices for Streets and Highways**

(Available at <http://mutcd.fhwa.dot.gov/>.)

**MIL-HNBK-828A**

Department of Defense Laser Range Safety on Ranges and in Other Outdoor Areas (Available at <http://assist.daps.dla.mil/quicksearch>.)

**MIL STD 882D**

System Safety (Available at <http://www.assist.daps.dla.mil/quicksearch.>)

**MIL-STD-1180B(1) (Chg Notice 1)**

Safety Standards for Military Ground Vehicles (Available at <http://www.assist.daps.dla.mil/quicksearch.>)

**MTMCTEA Pam 55-19**

Tiedown Handbook for Truck Movements

**NFPA 101**

Life Safety Code (National Fire Protection Code) (Available at <http://www.nfpa.org.>)

**NIMS (National Incident Management System)**

(Available at [http://www.fema.gov/.](http://www.fema.gov/))

**NIOSH (National Institute for Occupational Safety and Health)**

(Available at <http://www.cdc.gov/niosh/homepage.html.>)

**NRP (National Response Framework)**

(Available at [http://www.dhs.gov/xprepresp/publications/.](http://www.dhs.gov/xprepresp/publications/))

**OSH Act**

(Available at [http://www.osha.gov/.](http://www.osha.gov/))

**PD TMDE Web site**

Product Director Test, Measurement, and Diagnostic Equipment (Available at <http://pdtmde.redstone.army.mil.>)

**PL (Public Law) 91-596**

Occupational Safety and Health Act of 1970, Amended 5 November 1990 (Available at [http://www.osha.gov/.](http://www.osha.gov/))

**PL (Public Law) 106-390**

Disaster Mitigation Act of 2000

**Snell Memorial Foundation Standard M2005**

2005 Standard for Protective Headgear for Use with Motorcycles and Other Motorized Vehicles (Available at <http://www.smf.org.>)

**TB 9-639**

Passenger-Carrying Capacity of Tactical and Administrative Vehicles Commonly Used to Transport Personnel (Available at [http://www.apd.army.mil/.](http://www.apd.army.mil/))

**TB 43-0108**

Handling, Storage and Disposal of Army Aircraft Components Containing Radioactive Materials

**TB 700-2**

Department of Defense Ammunition and Explosives Hazard Classification Procedures

**TB 750-25**

Maintenance of Supplies and Equipment: Army Test, Measurement and Diagnostic Equipment (TMDE) Calibration and Repair Support (C&RS) Program

**TB Med 521**

Occupational and Environmental Health Management and Control of Diagnostic, Therapeutic, and Medical Research X-ray Systems and Facilities

**TB Med 524**

Control of Hazards to Health from Laser Radiation

**TB Med 575**

Swimming Pools and Bathing Facilities

**TC 21-306**

Tracked Combat Vehicle Driver Training

**TED 8.4**

OSHA VPP Policy and Procedures Manual (Available from <http://osha.gov>.)

**The International Civil Aviation Organization (ICAO) Web site**

(Available at <http://www.icao.int>.)

**The Life Safety Code 1910.35**

NFPA 101-2000, Title: Occupational Safety and Health Standards (Available from <http://www.osha.gov>.)

**TM 55 Series**

Transportability (Available at <http://www.apd.army.mil/>.)

**TM 55-607**

Loading and Stowage of Military Ammunition and Explosives Aboard Breakbulk Merchant Ships

**TM 9-2610-200-14**

Operators, Unit, Direct Support and General Support Maintenance Manual for Care, Maintenance, Repair, and Inspection of Pneumatic Tires and Inner Tubes

**UFGS 01525 (Unified Facilities Guide Specifications)**

Safety and Occupational Health Requirements (Available at <http://www.wbdg.org/>.)

**United Nations Economic Commission for Europe Standard 22-05**

Uniform Provisions Concerning the Approval of Protective Helmets and Their Visors for Drivers and Passengers of Motor Cycles and Mopeds, September 24, 2002. (Available at <http://www.unece.org/trans/main/wp29/wp29regs/22rv4e.pdf>.)

**USMC Range Safety Pocket Guide**

Available from (<http://www.pendleton.usmc.mil/>.)

**50 USC 1512**

War and National Defense (Available from <http://gpoaccess.gov/>.)

**UCMJ, Art. 92**

Failure to obey order or regulation (Available from <http://acq.osd.mil/cpplaw/souscl512.pdf>.)

**56 FR 15510**

Roof Crush Resistance (Available at <http://www.nhtsa.dot.gov/car/rules/>.)

**Section III**

**Prescribed Forms**

Unless otherwise indicated, DA forms are available on the Army Publishing Directorate (APD) Web site ([www.apd.army.mil](http://www.apd.army.mil)); DD forms are available on the Office of the Secretary of Defense (OSD) Web site ([www.dtic.mil/whs/directives/infomtg/forms/formsprogram.htm](http://www.dtic.mil/whs/directives/infomtg/forms/formsprogram.htm)); and Standard forms (SFs) are available on the U.S. General Services Administration (GSA Web site ([www.gsa.gov](http://www.gsa.gov))).

**DA Form 2696**

Operational Hazard Report (Cited in para 15-6.)

**DA Form 7305**

Worksheet for Telephonic Notification of Aviation Accident/Incident (Cited in para 3-8a(2)(b).)

**DA Form 7306**

Worksheet for Telephonic Notification of Ground Accident (Cited in para 3-8a(2)(a).)

**SF Form 91**

Motor Vehicle Accident Report (Cited in para 3-8b(5)(d).)

## **Section IV**

### **Referenced Forms**

Unless otherwise indicated, DA forms are available on the Army Publishing Directorate (APD) Web site ([www.apd.army.mil](http://www.apd.army.mil)); DD forms are available on the Office of the Secretary of Defense (OSD) Web site ([www.dtic.mil/whs/directives/infomtg/forms/formsprogram.htm](http://www.dtic.mil/whs/directives/infomtg/forms/formsprogram.htm)); and Standard forms (SFs) are available on the U.S. General Services Administration (GSA Web site ([www.gsa.gov](http://www.gsa.gov))).

#### **DA Form 11-2**

Internal Control Evaluation Certification

#### **DA Form 1119-1**

Certification of Achievement in Safety

#### **DA Form 2028**

Recommended Changes to Publications and Blank Forms

#### **DA Form 2397-AB**

Abbreviated Aviation Accident Report (AAAR)

#### **DA Form 3946**

Military Police Traffic Accident Report

#### **DA Form 4753**

Notice of Unsafe or Unhealthful Working Condition

#### **DA Form 4754**

Violation Inventory Log

#### **DA Form 4755**

Employee Report of Alleged Unsafe or Unhealthful Working Conditions

#### **DA Form 5984-E**

Operator's Permit Record (EGA) (Sample of ULLS-generated form available from DA Pam 750-8, The Army Maintenance Management System (TAMMIS) Users Manual.)

#### **DA Form 7566**

Composite Risk Management Worksheet

#### **DD Form 250**

Materiel Inspection and Receiving Report

#### **DD Form 836**

Dangerous Goods Shipping Paper/Declaration and Emergency Response Information for Hazardous Materials Transported by Government Vehicles

#### **DD Form 1391**

FY \_\_ Military Construction Project Data

#### **DD Form 2272**

Department of Defense Safety and Occupational Health Protection Program

#### **DD Form 2796**

Post-Deployment Health Assessment (PDHA)

#### **OF 346**

U.S. Government Motor Vehicle Operator's Identification Card

#### **SF 50-B**

Notification of Personnel Action

**SF 368**

Product Quality Deficiency Report

**OSHA Form 300**Log of Work-Related Injuries and Illnesses (Available at <http://www.osha.gov>.)**OSHA Form 300A**Summary of Work-Related Injuries and Illnesses (Available at <http://www.osha.gov>.)**Appendix B****Determining if a Radiation Safety Function is Required****B-1. Requirements**

If any of the conditions in B2, below, pertain to a garrison activity or tenant activities, the garrison is required to execute the requirements of a radiation safety function, which includes designating, in writing, a RSO who will establish, maintain and manage a written Radiation Program in accordance with this regulation, Army, DOD, Federal and state regulations.

**B-2. Conditions requiring a radiation safety element**

A radiation function is required if the garrison or tenant activity has—

- a.* A NRC license, Army reactor permit, ARA, or an applicable technical publication that requires the function.
- b.* Any personnel in the command who are required to wear ADC-issued dosimetry.
- c.* Any personnel in the command who are required to participate in a bioassay program.
- d.* A class IIIb or class IV laser system (section 1.3, ANSI Safety Code Z136.1) that is not type classified. (In this case, the title of the person so designated is “laser safety officer.”)
- e.* A deployable unit possessing radioactive commodities or radiation emitting equipment that requires the implementation of a radiation safety program (for example, leak testing, radiation postings, shipping requirements).
- f.* Any X-ray systems, except for small, security type X-ray (for example, airport X-ray security machines, mail screening systems).
- g.* Any X-ray systems meeting the conditions of TB Med 521, ANSI, or National Council on Radiation Protection and Measurements standards.
- h.* A non-Army agency using, storing, or possessing ionizing radiation sources on an Army installation requires the issuance of a radiation license.

**Appendix C****Management Control Evaluation Checklist****C-1. Function**

The function covered by this checklist is the Army Safety Program.

**C-2. Purpose**

The purpose of this checklist is to assist commanders in evaluating the key management controls outlined below. It is not intended to cover all controls.

**C-3. Instruction**

Answers must be based on the actual testing of key management controls (for example, document analysis, direct observation, sampling, simulation). Answers that indicate deficiencies must be explained and corrective action indicated in supporting documentation. These key management controls must be formally evaluated at least once every 5 years. Certification that this evaluation has been conducted must be accomplished on DA Form 11-2 (Internal Control Evaluation Certification).

**C-4. Test questions**

Questions for key management controls are as follows:

- a.* Has each responsible organization established policies and procedures to execute their responsibilities and are they in compliance with their policies and procedures?
- b.* Have rating elements measuring application and use of CRM and health and safety responsibilities been included



in all Officer Evaluation Reports and Enlisted Evaluation Reports for military leaders as well as Army Civilian Employee Performance Appraisals for civilian managers and supervisors?

*c.* Has a written safety program, providing policy and procedures, been developed which incorporates the various elements based upon the organization's mission?

*d.* Has a safety and occupational health manager been designated in writing to exercise staff supervision over the safety and occupational health program?

*e.* Does the designated safety and occupational health manager have direct access to the command or director?

*f.* Are the various safety and occupational health safety councils, boards and committees meeting as required?

*g.* Have strategic goals, objectives and planning been executed and a business plan developed to implement them?

*h.* Have formal agreements been developed with tenant organizations as necessary?

*i.* Have command integrating agents developed and implemented plans and programs to integrate CRM into their functional area of responsibility?

*j.* Have both quantitative and qualitative metrics been developed and are they being used to measure their safety program effectiveness?

*k.* Do command safety and health managers meet OPM standards for the position of Occupational Safety and Health Manager?

*l.* Has the command requested, obtained, and designated sufficient funds and other resources to carry out all responsibilities designated in this regulation?

*m.* Are safety offices conducting and documenting annual programmatic audits of their safety program execution using their performance indicators and matrices?

*n.* Is each level of command auditing each of their subordinate organizations' safety program execution using their performance indicators and matrices at least every 3 years?

*o.* Are procedures in place and in operation to determine if facilities and equipment meet or exceed safety and health standards established in pertinent host Government, Federal, state, and local statutes and regulations and in Army Regulations?

*p.* Are deficiencies abated?

*q.* Are practices and procedures that minimize accident risk incorporated into regulations, directives, SOPs, special orders, training plans, operations plans and SOPs developed for all operations?

*r.* Are commanders, supervisors, and safety and occupational health staff provided specialized training to enable them to properly execute their safety and occupational health leadership and staff responsibilities?

*s.* Are there specific plans to ensure continuity of safety and occupational health and the risk management process during tactical operations or mobilization?

*t.* Is there a program or policy for reporting unsafe or unhealthful conditions?

*u.* Are standard Army Safety and Occupational Health Inspections performed to evaluate the status of the safety and occupational health program and risk management integration?

*v.* Are accidents being reported as required and correctly?

### **C-5. Comments**

Help make this a better test for evaluating management controls. Submit comments to the Office of the Director of the Army Safety: Chief of Staff (DACS-SF), 200 Army Pentagon, Washington, DC 20310-0200.

## **Glossary**

### **Section I**

#### **Abbreviations**

##### **A&E**

ammunition and explosive

##### **ACOM**

Army command

##### **ACSIM**

Assistant Chief of Staff for Installation Management

##### **ACTEDS**

Army Civilian Training, Education, and Development System

##### **ACV**

Army combat vehicle

##### **ADC**

Army Dosimetry Center

##### **ADSC**

Additional Duty Safety Course

##### **ADSO**

additional duty safety officer

##### **AFIP**

Armed Forces Institute of Pathology

##### **AGR**

active guard reserve

##### **AMC**

U.S. Army Materiel Command

##### **AMEDD**

U.S. Army Medical Department

##### **AMV**

Army motor vehicle

##### **ANSI**

American National Standards Institute

##### **AOC**

Army Operations Center

##### **AR**

Army regulation

##### **ARA**

Army radiation authorization

##### **ARFOR**

Army forces

##### **ARNG**

Army National Guard

**ARSOF**

Army special operations forces

**ASA (ALT)**

Assistant Secretary of the Army (Acquisition, Logistics, and Technology)

**ASAD**

Army Safety Augmentation Detachment

**ASA (IE&E)**

Assistant Secretary of the Army (Installations, Energy and Environment)

**ASAT**

Army safety action team

**ASCC**

Army service component command

**ASMIS**

Army Safety Management Information System

**ASO**

aviation safety officer

**ATEC**

U.S. Army Test and Evaluation Command

**ATV**

all-terrain vehicle

**BRAC**

base realignment and closure

**BRC**

basic rider course

**BSAT**

biological select agents and toxins

**BSL**

biosafety level

**CAI**

centralized accident investigation

**CBRN**

chemical, biological, radiological, and nuclear

**CBRNE**

chemical, biological, radiological, nuclear, and high yield explosives

**CCR**

Certificate of Compelling Reason

**CFR**

Code of Federal Regulations

**CG**

commanding general

**CID**

Criminal Investigation Division

**CMA**

U.S. Army Chemical Materials Agency

**CONUS**

continental United States

**COR**

contracting officer representative

**CORA**

Certificate of Risk Acceptance

**COTS**

commercial off-the-shelf

**CPA**

Chief, Public Affairs

**CPSC**

Consumer Product Safety Commission

**CRM**

composite risk management

**CSA**

Chief of Staff, Army

**CSC**

Command Safety Course

**DA**

Department of the Army

**DABSHC**

Department of the Army Biological Safety and Health Council

**DACASC**

Department of the Army Chemical Agent Safety Council

**DA Pam**

Department of the Army pamphlet

**DAS**

Director of Army Staff

**DASAF**

Director of Army Safety

**DASA (ESOH)**

Deputy Assistant Secretary of the Army (Environmental, Safety and Occupational Health)

**DASOHAC**

Department of the Army Safety and Occupation Health Advisory Council

**DCS**

Deputy Chief of Staff

**DDESB**

Department of Defense Explosives Safety Board

**DOD**

Department of Defense

**DODD**

Department of Defense directive

**DODI**

Department of Defense instruction

**DOT**

Department of Transportation

**DRU**

direct reporting unit

**DSN**

Defense Switched Network

**DTC**

U.S. Army Developmental Test Command

**DUSA(I&E)**

Deputy Under Secretary of Defense (Installation and Environment)

**EIR**

equipment improvement report

**EO**

executive order

**EOD**

explosive ordnance disposal

**EPA**

Environmental Protection Agency

**ERC**

experienced rider course

**ESC**

Enlisted Safety Council

**ESMP**

Explosive Safety Management Program

**FAR**

Federal Acquisition Regulation

**FASS**

facilities systems safety

**FM**

field manual

**FOA**

field operating agency



**FOIA**

Freedom of Information Act

**FORSCOM**

U.S. Army Forces Command

**FUDS**

formerly used defense sites

**GCMCA**

General Court-Martial Convening Authority

**GFE**

Government furnished equipment

**GFP**

Government furnished property

**GFM**

Government furnished material

**GS**

general schedule

**HAZMAT**

hazardous material

**HHS**

U.S. Department of Health and Human Services

**HN**

host nation

**HQDA**

Headquarters, Department of the Army

**HSPG**

Highway Safety Program Guidelines

**IAI**

installation-level accident investigation

**IAT**

infectious agents and toxins

**IMCOM**

U.S. Army Installation Management Command

**IMDG-Code**

International Maritime Dangerous Goods Code

**IN**

initial notification

**IND**

investigational new drug

**JCAHO**

Joint Commission on Accreditation of Healthcare Organizations

**LRTAO**

Logistics Review and Technical Assistance Office

**MANPRINT**

manpower and personnel integration

**MDR**

milestone decision review

**MEC**

munitions and explosives of concern

**MEDCOM**

U.S. Army Medical Command

**MHE**

materials handling equipment

**MIL-STD**

military standard

**mg**

milligram

**ml**

milliliter

**MOS**

military occupational specialty

**MP**

military police

**MSF**

Motorcycle Safety Foundation

**MSRC**

military sportbike rider course

**MTF**

medical treatment facility

**NAF**

nonappropriated fund

**NARM**

naturally occurring/accelerator produced radioactive material

**NCO**

noncommissioned officer

**NDI**

nondevelopmental item

**NFPA**

National Fire Protection Association

**NGB**

National Guard Bureau

**NRC**

Nuclear Regulatory Commission

**OCONUS**

outside the continental United States

**ODASAF**

Office of the Director of Army Safety

**OF**

optional form

**OPM**

Office of Personnel Management

**OSH**

occupational safety and health

**OSHA**

Occupational Safety and Health Administration

**OSH Act**

Occupational Safety and Health Act

**PCS**

permanent change of station

**PEO, Ammo**

Program Executive Office, Ammunition

**PL**

public law

**PM**

program/project/product manager

**POC**

point of contact

**POV**

privately owned vehicle

**PPE**

personal protective equipment

**PVNTMED**

preventive medicine

**QA**

quality assurance

**RAC**

risk assessment code

**RC**

reserve component

**RCWM**

recovered chemical warfare materiel

**RDT&E**

research, development, test, and evaluation

**ROTC**

Reserve Officers' Training Corps

**RSC**

Radiation Safety Committee

**RSO**

radiation safety officer

**SA**

Secretary of the Army

**SDDC**

Surface Deployment and Distribution Command

**SF**

standard form

**SJA**

staff judge advocate

**SME**

subject matter expert

**SOFA**

status of forces agreement

**SOP**

standing operating procedure

**SSMP**

system safety management plan

**SSRA**

system safety risk assessment

**SUPCOM**

U.S. Army Support Command

**TACOM**

Tank-Automotive and Armaments Command

**TB**

technical bulletin

**TC**

track commander

**TDA**

table of distribution and allowance

**TDY**

temporary duty

**TIG**

The Inspector General

**TMDE**

test, measurement, and diagnostic equipment

**TM**

technical manual

**TOE**

table of organization and equipment

**TRADOC**

U.S. Army Training and Doctrine Command

**TSG**

The Surgeon General

**UAS**

unmanned aircraft system

**USACE**

U.S. Army Corps of Engineers

**USACHPPM**

U.S. Army Center for Health Promotion and Preventive Medicine

**USACR/SC**

U.S. Army Combat Readiness/Safety Center

**USAR**

U.S. Army Reserve

**USARC**

U.S. Army Reserve Command

**USASOC**

U.S. Army Special Operations Command

**USATCES**

U.S. Army Technical Center for Explosives Safety

**USCG**

U.S. Coast Guard

**VC**

vehicle commander

**VPP**

Voluntary Protection Program

**Section II**

**Terms**

**Accident**

Any unplanned event or series of events that result in death, injury, or illness to personnel, or damage to or loss of equipment or property. (Within the context of this regulation, accident is synonymous with mishap.)

**Accident-based risk management**

A component of CRM used to identify, evaluate, manage and prevent accidents to personnel, equipment, and the environment during peacetime, contingency operations and wartime due to safety and occupational health factors; design and construction of equipment and other accident-based factors.

**Active Army personnel**

Members of the Army who are on full-time duty in active military service, including cadets at the U.S. Military Academy.

**Aircraft**

Free balloons, gliders, airships, and flying machines, whether manned or unmanned, weight carrying structure for navigation of the air that is supported by its own buoyancy or the dynamic action of the air against its surfaces.

**Aircraft ground accident**

Injury or property damage accidents involving Army aircraft in which no intent for flight exists, and the engine(s) is/are in operation.

**Ammunition and explosives (A&E)**

Includes (but is not limited to) all items of ammunition ; propellants, liquid and solid; high and low explosives; guided missiles; warheads; devices; pyrotechnics; chemical agents; and components and substances associated therewith, presenting real or potential hazards to life and property.

**Annual basis or annually**

Annual basis or annually should be from the month of the current year to the same month of the following year. However, the time will not exceed 13 months. This does not apply to items covered under the Army Maintenance Management System.

**Army accident**

An Army accident is defined as an unplanned event, or series of events, which results in one or more of the following:

- a. Occupational illness to Army military or Army civilian personnel.
- b. Injury to on-duty Army civilian personnel.
- c. Injury to Army military personnel on and off duty.
- d. Damage to Army property.
- e. Damage to public or private property and/or injury or illness to non-Army personnel caused by Army operations (the Army had a causal or contributing role in the accident).

**Army acquisition executive**

Principal advisor and staff assistant to the SA for acquisition of Army systems.

**Army civilian personnel**

Types of Army civilian personnel:

- a. Senior executive service, general management, GS, and Federal Wage System, NSPS, employees.
- b. U.S. Army Corps of Engineers employees.
- c. ARNG and USAR technicians.
- d. NAF employees (excluding part-time military).
- e. Foreign nationals directly or indirectly employed by DA (paid by appropriated funds).
- f. Youth/Student Assistance and Temporary Program employees; Volunteers in Service to America volunteers; Job Corps, Neighborhood Youth Corps, and Youth Conservation Corps Volunteers; Family Support Program volunteers.

**Army combat vehicle (ACV)**

Tanks, self-propelled weapons, tracked personnel carriers, amphibious vehicles ashore, and similar equipment.

**Army leadership**

Army leadership refers to Army officers, NCOs, Senior Executive Service officials, and GS employees designated, authorized, held responsible and accountable by the Army to make decisions at various levels of the Army involving execution of the Army's mission. Designation must be documented in writing or contained in official orders.

**Army motor vehicle**

Any vehicle that is owned, leased, or rented by DA and/or RC. A vehicle that is primarily designed for over-the-road operation. A vehicle whose general purpose is the transportation of cargo or personnel. Examples are passenger cars, station wagons, trucks, ambulances, buses, motorcycles, fire trucks, and refueling vehicles.



### **Army National Guard (AGR) personnel**

Military personnel who are on active duty for training; inactive duty training; annual training; active duty special work; temporary tour active duty; AGR; full-time manning.

### **Army personnel**

Active duty Army personnel, Army civilian personnel, Army Reserve personnel, ARNG personnel, and Reserve Officers' Training Corps personnel as defined in this regulation.

### **Army property**

Any item of Army property, or property leased by the Army for which the Army has assumed risk of loss, such as aircraft, vehicle, building, structure, system, and so on.

### **Army reserve personnel**

Army Reserve personnel members who are on active duty for training; inactive duty training; annual training; full-time manning; temporary tour active duty; active duty for special work; AGR.

### **Army CRM process**

A holistic approach to preserving readiness that applies 24/7 to Soldiers, Army civilian employees, and even contract workers. The process has 5 phases that form a closed loop system of risk assessment, mitigation, and evaluation.

### **Army Special Operations Forces (ARSOF)**

Those active and RC ARFOR designated by the Secretary of Defense that are specifically organized, trained, and equipped to conduct and support special operations.

### **Audit**

A process of collecting information about an organization's safety and occupational health management system and making judgments about its adequacy and performance, identifying both the strengths and weaknesses of the safety and health program as implemented by the organization. To ensure that all necessary safety and health program elements are operating and that procedures are in place for thorough implementation. The aims of auditing should be to establish that: appropriate management arrangements are in place; an adequate CRM control system exists which both reflect the hazard profile of the organization and is properly implemented; and appropriate workplace precautions are in place.

### **Bailed aircraft**

Any Government-owned aircraft provided to a contractor under a Bailment Agreement for use in conjunction with a specific contractual requirement. Aircraft are usually bailed to a contractor to perform Government contract work. Aircraft are usually leased to a contractor for the contractor's use. Bailment agreements are legal contracts between the Government Program Office and the contractor.

### **Bailment contract or agreement**

An agreement for the delivery of personal property as opposed to real property in trust for a specific purpose, to be returned when the specific purpose is accomplished.

### **Barrier**

A permanent or temporary impediment to foot and or vehicular traffic that personnel are prohibited to pass without approval from range control. A barrier may be sentinel, wire fencing, gate, sign, or other access-limiting device.

### **Biological mishap**

An event in which the failure of laboratory facilities, equipment, or procedures appropriate to the level of potential pathogenicity or toxicity of a given etiologic agent (organism or toxin) may allow the unintentional, potential exposure of humans or the laboratory environment to that agent. Mishaps can be categorized into those resulting in confirmed exposures and those resulting in potential exposures.

### **Biosafety level (BSL)**

A combination of facilities, equipment, and procedures used in handling etiologic agents to protect the worker, environment, and the community. This combination is proportional to the potential hazard of the etiologic agent in question.

### **Biosafety level 1 (BSL-1)**

The facilities, equipment, and procedures suitable for work involving agents of no known or of minimal potential hazard to laboratory personnel and the environment.

**Biosafety level 2 (BSL-2)**

The facilities, equipment, and procedures applicable to clinical, diagnostic, or teaching laboratories, suitable for work involving indigenous agents of moderate potential hazard to personnel and the environment. It differs from BSL-1 in that—

- a. The laboratory personnel have specific training in handling pathogenic agents.
- b. The laboratory is directed by scientists with experience in the handling of specific agents.
- c. Access to the laboratory is limited when work is being conducted.
- d. Certain procedures in which infectious aerosols could be created are conducted in biological safety cabinets or other physical containment equipment.
- e. Personnel must be trained.
- f. Strict adherence to recommended practices is as important in attaining the maximum containment capability, as is the mechanical performance of the equipment itself.

**Biosafety level 3 (BSL-3)**

The facilities, equipment, and procedures applicable to clinical, diagnostic, research, production facilities in which work is performed with indigenous or exotic agents where there is potential for infection by aerosol and the disease may have serious or lethal consequences. It differs from BSL-2 in that—

More extensive training in handling pathogenic and potentially lethal agents is necessary for laboratory personnel. All procedures involving the manipulation of infectious material are conducted within biological safety cabinets or by other physical containment devices.

The laboratory has special engineering and design features, including access zones, sealed penetrations, and directional airflow.

Any modification of BSL-3 recommendations must be made only by the commander or director.

**Biosafety level 4 (BSL-4)**

The facilities, equipment, and procedures required for work with dangerous and exotic agents that pose a high individual risk of life-threatening disease. It differs from BSL-3 in that—

- a. Members of the laboratory staff have specific and thorough training in handling extremely hazardous infectious agents.
- b. Laboratory personnel understand the primary and secondary containment functions of the standard and special practices, containment equipment, and laboratory design characteristics.
- c. Access to the laboratory is strictly controlled by the commander or director.
- d. The facility is either in a separate building or in a controlled area within a building, which is completely isolated from all other areas of the building.
- e. A specific facility operations manual is prepared or adopted.
- f. Within work areas of the facility, all activities are confined to Class III biological safety cabinets or Class I or Class II biological safety cabinets used together with one-piece positive pressure personnel suits ventilated by a life-support system.
- g. The maximum containment laboratory has special engineering and design features to prevent microorganisms from being disseminated to the environment.

**Blister agent**

A chemical agent that injures the eyes, lungs, and burns or blisters the skin.

**Business plan**

A comprehensive document that clearly describes how the safety office intends to obtain their strategic goals and objectives. It describes how they will execute their programs and processes, manage funding and manpower, and interface with other organizations to achieve those goals.

**Chemical agent**

A chemical compound intended for use (to include experimental compounds) in military operations to kill, seriously injure, or incapacitate persons through its physiological effects. Excluded are RDT&E solutions, riot control agents, chemical defoliants and herbicides, smoke, flame and incendiaries, and industrial chemicals.

**Chemical agent operation**

Any operation that involves chemical agents, including storage, shipping, handling, manufacturing, maintenance, test chamber activities, laboratory activities, surveillance, demilitarization, decontamination, disposal, and training.

**Chemical ammunition**

Ammunition, the filler of which has the basic function of producing a toxic or irritant effect on the body, a screening or signaling smoke, or an incendiary action.

**Chemical event (also see AR 50-6)**

The term chemical event encompasses all chemical accidents, incidents, and politically/public sensitive occurrences. Specifically, this applies to—

*a.* Confirmed releases of agent from munitions. A confirmed chemical agent release from stockpile or nonstockpile chemical weapons is any detection of agent outside the munitions body or bulk storage container into the atmosphere outside of a closed containment system that is confirmed by corroborating positive detections. Closed containment systems include filtered bunkers, igloos, or overpack containers that are capable of preventing the escape of chemical agent in concentrations exceeding the acceptable exposure limit. Reporting will begin based on the time of release confirmation and must not wait until location and isolation of the leaking munitions/container is accomplished.

*b.* Discovery of an actual or suspected chemical agent munitions or container that may require emergency transportation and/or disposal. Discovery as part of planned real property remediation will not be reported as a chemical event unless emergency transportation or disposal is required, but it will be reported in accordance with remediation plans.

*c.* Confirmed detection of agent above short-term exposure limit occurring for any period outside the primary engineering control. This includes agent operations conducted in a closed system that is contained in a facility equipped with secondary engineering controls to protect unprotected workers or the ambient environment (for example, cascade ventilation/air filtrations).

*d.* Actual exposure of personnel to agent above the short-term exposure limit which is confirmed by clinical evaluation or initial laboratory evaluation or documented by sampling techniques. This includes any case where there is a reasonable belief that an exposure has occurred to any individual above these limits. Special attention needs to be given to workers reporting that they believe they were exposed to agent or the failure of personnel protective equipment.

*e.* Any terrorist or criminal act directed toward chemical agent storage, laboratory, or demilitarization facility or any deliberate release of chemical agent. This includes employment of an improvised chemical device intended to disperse chemical agent, regardless of whether the device has functioned.

*f.* Loss of chemical agent (other than deliberate destruction by approved, authorized laboratory and demilitarization processes).

*g.* Any malfunction or other significant activity at a chemical demilitarization plant that could reasonably be expected to cause concern within the local community or the press, or that, in the judgment of the facility or installation management or leadership, could cause embarrassment to the U.S. Army.

*h.* Above categories involving items configured as weapons containing the industrial chemical chlorine, hydrogen and potassium cyanide, carbonyl chloride, cyanogen chloride, or chloropicrin. This pertains to items that were designed as a delivery/dispersal system for use in war, irrespective of fusing or explosive configuration.

**Chemical munitions and agents**

An agent or munitions that through its chemical properties, produces lethal or other damaging effects to human beings, except that such term does not include riot control agents, chemical herbicides, smoke and other obscuration materials.

**Chemical warfare**

All aspects of military operations involving the use of lethal munitions/agents and the warning and protective measures associated with such offensive operations.

**Chemical weapons system**

An integrated relationship of chemical agents, munitions or spraying devices and their mode of delivery to the target.

**Combat developer**

Command or agency that formulates doctrine, concepts, organization, training, materiel requirements, and objectives. Represents the user community over the life cycle of the system.

**Command responsibility**

Commanders down the entire chain of command are responsible for the safety of their personnel.

**Commander**

An individual that lawfully exercises over subordinates by virtue of rank or assignment. This includes the authority and responsibility for effectively using available resources for planning the employment of, organizing, directing, coordinating and controlling military forces for the accomplishment of assigned missions. This also includes responsibility for

health, welfare, morale, and discipline of assigned personnel in his “command,” in accordance with FM 1–02 and FM 6–0. Examples of commanders are as follows:

- a. Commander of an Army Headquarters, CONUS and OCONUS.
- b. Chief of Engineers (civil and military works).
- c. Commander, U.S. Army Space and Strategic Defense Command.
- d. Chief, NGB.
- e. Commander, U.S. Army Medical Research and Development Command.
- f. Commanders of Army installations with a full-time safety professional. This includes posts, camps, stations, and military communities.
- g. State adjutants general (ARNG).
- h. Commanders of Army reserve organizations with a full-time safety professional.
- i. Commanders of MTFs.
- j. Commanders in direct support of general support maintenance units.
- k. Director of Facilities Engineering.
- l. Provost marshal/law enforcement commander.
- m. Director of industrial operations.
- n. U.S. Army Plant Representative Office.
- o. Commanders of TOE, MTOE, or TDA organizations.

### **Competent authority**

An individual of the armed forces designated in command, responsible for the direction, coordination and control of military forces. The commander alone is responsible for everything his unit does or fails to do. He cannot delegate his responsibility or any part of it although he may delegate portions of his authority to competent individuals. An individual designated by the commander to address areas of primary interest within that individual’s technical expertise.

### **Composite risk**

Blends tactical, threat-based risks with accidental, hazard-based risks (U.S. Army).

### **Concentration**

The amount of a chemical agent present in a unit volume of air. Usually expressed in milligrams per cubic meter (mg/m<sup>3</sup>).

### **Confirmed exposure**

Any mishap with a biological program agent in which there was direct evidence of an actual exposure such as a measurable rise in antibody titer to the agent or a confirmed diagnosis of intoxication or disease.

### **Conservation**

The protection, improvement, and use of natural resources according to principles that will provide optimum public benefit and support of military operations.

### **Contract**

A mutually binding legal relationship obligating the seller to furnish the supplies or services (including construction) and the buyer to pay for them. It includes all types of commitments that obligate the Government to an expenditure of appropriated funds and that, except as otherwise authorized, are in writing. In addition to bilateral instruments, contracts include (but are not limited to) awards and notices of awards; job orders or task letters issued under basic ordering agreements; letter contracts; orders, such as purchase orders, under which the contract becomes effective by written acceptance or performance; and bilateral contract modifications. Contracts do not include grants and cooperative agreements covered by 31 USC 6301, and those that follow.

### **Contracting agency**

The organization that has primary responsibility for monitoring, administering, and ensuring compliance with the contract, especially pertaining to the chemical agent program.

### **Counseling/advisory**

Activities associated with nonsupervisory advice/assistance provided by subject matter specialists on specific topics, for example, alcohol/drug abuse, mental health, community services.

**Contracting officer**

A designated officer who performs administrative functions listed in the Federal Acquisition Regulation.

**Contractor accident**

An accident that occurs as a result of a Government contractor's operations in which there is damage to U.S. Government or Army property or equipment, injury or occupational illness to Army personnel, or other reportable event.

**Control**

Action taken to eliminate hazards or reduce their risk.

**Conveyance**

A truck, tractor-trailer, railcar or commercial intermodal container used for transportation of ammunition, explosives or HAZMAT.

**Days away from work**

The actual or estimated number of days lost that the individual could not work excluding the day of the injury/occupational illness. Count all calendar days including weekends and holidays. For military personnel, days away from work for on- and off-duty injuries and occupational illnesses include hospitalization, medical restrictions to quarters, convalescent leave, and commander directed removal from duties.

**Department of the Army contractor**

A non-Federal employer engaged in performance of a DA contract, whether as prime contractor or subcontractor.

**Department of the Army installation**

A grouping of facilities located in the same vicinity that supports a particular DA functions. Installations may include locations such as posts, camps, stations, or communities, land, and improvements permanently affixed thereto which are under the DA control and used by Army organizations. Where installations are located contiguously, the combined property is designated as one installation and the separate functions as activities of that installation. In addition to those used primarily by troops, the term "installation" applies to such real properties as depots, arsenals, ammunition plants (both contractor and Government operated), hospitals, terminals, and other special mission installations.

**Debris**

Any solid particle thrown by an explosion or other strong energetic reaction. For aboveground detonations, debris usually refers to secondary fragments. For underground storage facilities, debris refers to both primary and secondary fragments, which are transported by a strong flow of detonation gases.

**Decontamination**

The physical or chemical processes by which an object or area, contaminated with a harmful or potentially harmful substance (for example, chemical agent, explosives, etiologic agent, hazardous chemical, and so forth) is made safe for handling or use. Such processes include physical removal of all contaminants, thermal destruction or sterilization, chemical inactivation or a combination of these methods.

**Decontaminating material**

Any substance used to chemically destroy, physically remove, seal, or otherwise make harmless a chemical agent.

**Demilitarization**

The mutilation, destruction, or neutralization of chemical agent materiel, rendering it harmless and ineffectual for military purposes.

**Detection**

The determination of the presence of a chemical agent.

**Dud**

An explosive item or component of a weapon system that fails to function.

**Educational**

Includes classroom training, excludes field settings such as field training exercises and maneuvers. Examples: Teach/instruct/brief/counsel student/audience activities.

**Emergency**

An event for which an individual perceives that a response is essential to prevent or reduce injury or property damage.

**Emergency disposal**

Immediate transportation and disposal of chemical agents/munitions when the senior EOD person determines the health or safety of any person is clearly endangered.

**Engineering controls**

Regulation of facility operations using prudent engineering principles, such as facility design, operation sequencing, equipment selection, and process limitations.

**Engineering or construction**

Those activities associated with surveying, building, and erecting, disassembling or destroying things. Examples: Lay/clear minefields, bridging, quarrying, welding, brazing, roofing, installing electrical wiring, painting, land surveying, demolition, clearing, digging, concrete work, masonry work, dredging, trenching.

**Environmental factors**

Environmental conditions, which had, or could, have had an adverse effect on the individual's actions or the performance of equipment.

**EOD**

The detection, identification, field evaluations, rendering safe, recovery, and final disposal of unexploded explosive ordnance or munitions chemical agents.

**EOD procedures**

Those particular courses or modes of action for access to, recovery, render safe, and final disposal of explosive ordnance or any HAZMAT associated with an EOD incident.

**Establishment**

A single physical location where business is conducted or where services or operations are performed. Where distinctly separate activities are performed at a single physical location, each activity shall be treated as a separate establishment. Typically, an establishment refers to a field activity, regional office, area office, installation, or facility.

**Etiologic agent**

A viable microorganism or its toxin that causes or may cause human disease, and includes those agents listed in 42 CFR 72.3 of the HHS regulations and any material of biologic algorithm that poses a degree of hazard similar to those organisms.

**Evaluation**

A specialized inspection designed to determine the effectiveness of a unit's safety and health program.

**Exclusive Federal jurisdiction**

(Otherwise termed exclusive legislative jurisdiction.) Applies to situations where the Federal Government has received, by whatever method, all the authority of the state, with no reservation made to the state, except of the right to serve process resulting from activities that occurred off the land involved.

**Experimental chemical agents**

Chemical substances being tested, developed, or altered for chemical defense purposes that— are used solely by the military; are contained in items configured as a weapon; and have toxicities equal to or greater than current nerve or mustard agents.

**Exposure**

The frequency and length of time personnel and equipment are subjected to a hazard.

**Explosion**

A chemical reaction of any chemical compound or mechanical mixture that, when initiated, undergoes a very rapid combustion or decomposition, releasing large volumes of highly heated gases that exert pressure on the surrounding medium. Depending on the rate of energy release, an explosion can be categorized as a deflagration or a detonation.



**Explosive license**

An installation-generated document which shows the allowable net explosives weight at each explosive site.

**Exposed site**

A location exposed to the potential hazardous effects (blast, fragments, debris, and heat flux) from an explosion at a PES.

**Extremely hazardous substances**

The EPA uses the term extremely hazardous substance for the chemicals that must be reported to the appropriate authorities if released above the threshold reporting quantity. Each substance has a threshold reporting quantity. The list of extremely hazardous substances is identified in Title III of Superfund Amendments and Reauthorization Act (SARA) of 1986 (40 CFR 355).

**Facility**

An area within a building that provides appropriate protective barriers for persons working in the facility and the environment external to the facility, and outside of the building.

**Fair wear and tear (FWT)**

Loss or impairment of appearance, effectiveness, worth, or utility of an item that has occurred solely because of normal and customary use of the item for its intended purpose.

**Federal OSHA official**

Investigator or compliance officer employed by, assigned to, or under contract to OSHA.

**Field operations**

Operations conducted outdoors or outside of man-made enclosures or structures that contain built-in alarms or engineered chemical agent controls. Short-term operations in storage structures are also considered field operations.

**Firefighting**

Activities associated with developing or using firefighting skills. Excludes vehicle operation going to and from the scene.

**First aid**

First aid is defined as using a list of procedures that are all-inclusive and is not a recordable injury. If a procedure is not on the list, it is not considered first aid for recordkeeping purposes. The following are the procedures contained in the list—

- a. Using a nonprescription medication at nonprescription strength. However, if an employee is provided prescription medications or nonprescription medications at prescription strength, this is considered medical treatment.
- b. Tetanus immunizations.
- c. Cleaning, flushing, or soaking surface wounds.
- d. Wound coverings, butterfly bandages, Steri-Strips. The use of wound closure methods such as sutures, medical glues, or staples is considered medical treatment.
- e. Hot or cold therapy regardless of how many times it is used.
- f. Nonrigid means of support.
- g. Temporary immobilization device used to transport accident victims.
- h. Drilling of fingernail or toenail; draining fluid from blister.
- i. Eye patches.
- j. Removing foreign bodies from eye using irrigation or cotton swab. However, use of other methods to remove materials from the eye is medical treatment.
- k. Removing splinters or foreign material from areas other than the eye by irrigation, tweezers, cotton swabs or other simple means.
- l. Finger guards.
- m. Massages. Massage therapy is first aid, but physical therapy or chiropractic treatment is considered medical treatment.
- n. Drinking fluids for relief of heat stress. (Drinking fluids for relief of heat stress is first aid, but administering an IV is medical treatment.)

**Flammable**

A material that has the characteristic of being easily ignited and burning readily.

### **Flight mission**

Flight or series of flights (sorties), conducted to accomplish a specific task or series of tasks in support of the unit's approved mission statement. Each mission is assigned to a designated pilot in command (PC) and or air mission commander.

### **Foreign object damage (FOD)**

Damage to Army vehicle/equipment/property as a result of objects alien to the vehicle/equipment damaged. Excludes aircraft turbine engines defined as a FOD incident.

### **Fragment**

A piece of an exploding or exploded munitions. Fragments may be complete items, subassemblies, pieces thereof, or pieces of equipment or buildings containing the items.

### **Fragment distance**

The limiting range, based on a specific density of hazardous fragments, expected from the type and quantity of explosives involved. Used in establishing certain Q-D criteria. A hazardous fragment is a fragment having an impact energy of 58 foot-pounds or greater. Hazardous fragment density is a density of hazardous fragments exceeding one per 600 square feet.

### **Fratricide**

A circumstance in which members of a United States or friendly military force are mistakenly or accidentally killed or injured in action by United States or friendly forces actively engaged with an enemy or who are directing fire at a hostile force or what is thought to be a hostile force.

### **Ground accident**

Any accident exclusive of aviation (flight/flight related/aircraft ground/UAS) (for example, AMV, ACV, POV, marine.)

### **Guided missile**

An unmanned vehicle moving above the surface of the Earth whose trajectory or flight is capable of being altered by an external or internal mechanism.

### **Gun target line**

An imaginary line drawn between the firing position and target position. Also referred to as the line of fire.

### **Handling/material/passengers**

Activities associated with the transportation, distribution, and storage of material or passengers. Examples: Distributing/issuing, loading/unloading, transporting/moving/delivering, packing/unpacking/preserving, inventorying/inspecting, weigh/measure, palletize/slingload/rig, retrieve, turn in/store.

### **Hazard**

Any actual or potential condition that can cause injury, illness, or death of personnel or damage to or loss of equipment, property or mission degradation, or a condition or activity with potential to cause damage, loss, or mission degradation.

### **Hazard analysis**

A hazard analysis is a clear, systemic, concise, well defined, orderly, consistent, closed-loop, quantitative or qualitative and objective methodology used to identify possible hazards within a mission, system, equipment or process that can cause losses to the mission, equipment, process, personnel or damage to the environment. Examples of hazard analyses are What-If, Preliminary Hazard Analysis, Sneak Circuit Analysis, Hazard and Operability Study, Fault Tree Analysis, Failure Mode and Effects Analysis, and Fault Hazard Analysis.

### **Hazardous chemicals**

The OSHA uses the term hazardous chemical to denote any chemical that would be a risk to employees if exposed in the work place. Hazardous chemicals cover a broader group of chemicals than the other chemical lists.

### **Hazardous wastes**

The EPA uses the term hazardous wastes for chemicals that are regulated under the Resource, Conservation, and Recovery Act (42 USC 6901). Hazardous wastes in transportation is regulated by DOT (49 CFR 170 through 49 CFR 179).

**Hazard class**

The United Nations Organization hazardous classification system, which contains 9 hazard classes, is used by the DOD for dangerous materials to identify the hazardous characteristics of A&E. Hazard Class 1 (A&E) is further divided into six division designators that indicate the primary characteristics and associated hazards.

**Hazard classification**

An assignment of A&E (class 1 substances) into one of six divisions for purposes of storage, transportation, and QD computations. These divisions are—

- 1.1—mass detonating.
- 1.2—fragment producing.
- 1.3— mass fire.
- 1.4—moderate fire.
- 1.5—very insensitive explosives and blasting agent (used by the Army for transportation only).
- 1.6—extremely insensitive ammunition.

**Hazardous materials (HAZMAT)**

Definitions are—

*a.* “Hazardous material” means any material that has been designated as hazardous under 49 USC 5101 to 49 USC 5127 and is required to be placarded under 49 CFR 172, Subpart F or any quantity of material listed as a select agent or toxin in 42 CFR 73.

*b.* Substances that have hazardous characteristics such as flammable, corrosive, reactive, toxic, radioactive, poisonous, carcinogenic or infectious, having properties capable of producing adverse effects on the health and safety or the environment of a human being. Legal definitions are found in individual regulations.

*c.* Any substance or material that when involved in an accident and released in sufficient quantities, poses a risk to people’s health, safety, and/or property. These substances and materials include explosives, radioactive materials, flammable liquids or solids, combustible liquids or solids, poisons, oxidizers, toxins, and corrosive materials (Federal Emergency Management Agency definition).

*d.* The DOT uses the term hazardous materials which covers 8 hazard classes, some of which have subcategories called classifications and a ninth class covering other regulated materials. The DOT includes in its regulations hazardous substances and hazardous wastes as other regulated materials-E, both of which are regulated by the EPA, if their inherent properties would not otherwise be covered.

**Hazardous substances**

Two forms of definitions—

*a.* The EPA uses the term hazardous substance for the chemicals that, if released into the environment above a certain amount, must be reported and depending on the threat to the environment, Federal involvement in handling the incident can be authorized. A list of the hazardous substances is published in 40 CFR 302, Table 302.4.

*b.* The OSHA uses the term hazardous substance in 29 CFR 1910.120, which resulted from Title I of SARA and covers emergency response. OSHA uses the term differently than EPA. Hazardous substances, as used by OSHA, cover every chemical regulated by both DOT and EPA.

**HC smoke**

Hexachloroethane-zinc oxide used to generate screening smoke.

**Health hazard**

An existing or likely condition, inherent to the operation, maintenance, storage or disposal of materiel or a facility, that can cause death, injury, acute or chronic illness, disability, or reduced job performance.

**Health hazard assessment**

The applications of biomedical and psychological knowledge and principles to identify, evaluate, and control the risk to the health and effectiveness of personnel who test, use, or service Army systems.

**Hospitalization**

Admission to a hospital as an inpatient for medical treatment.

**Human error**

Human performance that deviated from that required by the operational standards or situation. Human error in

accidents can be attributed to a system inadequacy/root cause in training, standard, leader, individual, or support failure indicated below:

### **Human factors**

Human interactions (man, machine, and/or environment) in a sequence of events that were influenced by, or the lack of human activity, which resulted or could result in an Army accident.

### **Human factors engineering**

A comprehensive technical effort to integrate into Army doctrine, materiel development, and materiel acquisition (to ensure operational effectiveness) all relevant information on— human characteristics (skill capabilities); performance (anthropometric data); biomedical factors (safety factors); training (manning implications).

### **Imminent danger**

Conditions or practices in any workplace that pose a danger that reasonably could be expected to cause death or severe physical hardship before the imminence of such danger could be eliminated through normal procedures.

### **Impact area**

The ground and associated airspace within the training complex used to contain fired or launched A&E and the resulting fragments, debris, and components from various weapon systems. A weapon system impact area is the area within the surface danger zone used to contain fired or launched A&E and the resulting fragments, debris, and components. Indirect fire weapon system impact areas include probable error for range and deflection. Direct fire weapon system impact areas encompass the total surface danger zone from the firing point or positions down range to distance X—

*a. Temporary impact area.* An impact area within the training complex used for a limited period of time to contain fired or launched A&E and the resulting fragments, debris, and components. Temporary impact areas are normally used for non-dud-producing ammunition or explosives and should be able to be cleared and returned to other training support activities following termination of firing.

*b. Dedicated impact area.* An impact area that is permanently designated within the training complex and used indefinitely to contain fired or launched A&E and the resulting fragments, debris, and components. Dedicated impact areas are normally used for less sensitive A&E than that employed in high hazard impact areas. However, any impact area containing fused HE or white phosphorous duds represent a high risk to personnel and access must be limited and strictly controlled.

*c. High hazard impact area.* An impact area that is permanently designated within the training complex and used to contain sensitive HE A&E and the resulting fragments, debris, and components. High-hazard impact areas are normally established as part of dedicated impact areas where access is limited and strictly controlled because of the extreme hazard of dud ordnance such as ICM, HEAT, 40mm, and other highly sensitive A&E.

### **Improved conventional munitions**

Munitions characterized by the delivery of two or more antipersonnel, anti-materiel, and or anti-armor submunitions.

### **Incapacitating agents**

Agents that produce physiological or mental effects, or both, that may persist for hours or days after exposure, rendering individuals incapable of concerted effort in the performance of their assigned duties. Complete recovery of incapacitating agent casualties is expected without medical treatment.

### **Independent evaluation**

The process used by the independent evaluators to independently determine if the system satisfies the approved requirements. It will render an assessment of data from all sources, simulation and modeling, and an engineering or operational analysis to evaluate the adequacy and capability of the system.

### **Independent safety assessment**

That document prepared by the USACR/SC and forwarded to the AAE assessing the risk of the residual hazards in a system prior to the MDRs.

### **Individual risk**

Risk to a single exposed person (RALCT).

### **Industrial chemical**

Chemicals developed or manufactured for use in industrial operations or research by industry, Government, or

academia. Man does not primarily manufacture these chemicals for the specific purpose of producing human casualties or rendering equipment, facilities, or areas dangerous for use.

### **Infectious agents and toxins (IAT)**

Fungi, virus, bacteria, prions, rickettsia, parasites or a viable microorganism, or its toxin, or a prion that lacks nucleic acids, that causes or may cause disease, includes clinical cultures.

### **Inherent hazard**

An existing or permanent hazard (such as voltage, for example).

### **Injury**

A traumatic wound or other condition of the body caused by external force, including stress or strain. The injury is identifiable as to time and place of occurrence and member or function of the body affected, and is caused by a specific event, incident, or series of events or incidents within a single day or work shift.

### **Inspection**

Comprehensive survey of all or part of a workplace in order to detect safety and health hazards. Inspections are normally performed during the regular work hours of the agency, except as special circumstances may require. Inspections do not include routine, day-to-day visits by agency occupational safety and health personnel, or routine workplace surveillance (29 CFR 1960.2(k)). It is also the process of determining compliance with safety and health standards through formal and informal surveys of workplaces, operations, and facilities.

### **Installation**

An aggregation of contiguous or near contiguous, common mission supporting real property holdings under the jurisdiction of the DOD within and outside CONUS. Examples include, but are not limited to, posts, camps, bases, and stations.

### **Installation-level safety director**

The senior full-time safety professional responsible for providing safety support to Army installations, including camps, stations, military communities, and USAR organizations.

### **Intent for flight**

Intent for flight begins when power is applied or brakes released to move the aircraft under its own power, for the purpose of commencing authorized flight with an authorized crew. Intent for flight ends when the aircraft is at a full stop and power is completely reduced. Intent for flight is the physical act of applying power to move the aircraft, not the thought process of the crew member as to what is going to occur in the future.

### **Investigation**

A systematic study of an accident, incident, injury, or occupational illness circumstances.

### **Job transfer**

When an employee/Soldier is assigned to a job other than his/her regular job for part of the day as a result of an injury or occupational illness.

### **Laboratory**

An individual room or rooms within a facility that provides space in which work with etiologic or chemical agents may be performed. It contains appropriate engineering features and equipment required for either a given BSL or chemical agent to protect personnel working in the laboratory and the environment and personnel outside of the laboratory.

### **Laser**

A device capable of producing a narrow beam of intense light (LASER-light amplification by stimulated emission of radiation (see TB MED 524 and JCS Pub 3-09.1 for more information on lasers).

### **Leased aircraft**

Any Government-owned aircraft provided to a contractor under a Lease Agreement for use in conjunction with a specific contractor need. Aircraft are usually leased to a contractor for the contractor's use. Aircraft are usually bailed to a contractor to perform Government contract work. DODD 7230.8 further clarifies leased aircraft procedures and requirements. Lease agreements are legal contracts between the Government Program Office and the contractor.

**Lewisite**

The chemical dichloro(2-chlorovinyl)arsine, chemical abstracts service registry No. 541-25-3, in pure form and in the various impure forms that may be found in storage as well as in industrial, depot, or laboratory operations.

**Life cycle**

The life of a system from conception to disposal.

**Maintenance/repair/servicing**

Activities associated with the maintenance, repair or servicing of equipment and other property. Excludes janitorial, housekeeping or grounds-keeping activities. Examples: Install/remove/modify equipment, tune/adjust/align/ connect, hot-metal work, cold-metal work, plastic working, soldering, repairing tires, inspecting tires/batteries, fueling/defueling, changing/inflating tires, charging batteries.

**Malfunction**

Failure of an ammunition item to function as expected when fired, launched, or when explosive items function under conditions that should not cause functioning. Malfunctions include hang-fires, misfires, duds, abnormal functioning and premature functioning of explosive items under normal handling, maintenance, storage, transportation, and tactical deployment. Malfunctions do not include accidents or incidents that arise solely from negligence, all practice, or situations such as vehicle accidents or fires.

**MANPRINT**

A comprehensive management and technical program designed to improve total system (leader, unit/Soldier, and equipment) performance by focusing on the human requirements for optimal system performance. This is achieved by examination of optimal allocation of total system functions and tasks to man, machine, or a combination, and the continuous integration of personnel capabilities, manpower, training, human factors engineering, system safety, health hazards, and soldier survivability.

**Materiel acquisition decision process**

Those milestone reviews held to determine if a system is ready to progress to the next phase of the acquisition process.

**Materiel developer**

Command or agency responsible for the functional support for the research, development, and acquisition process.

**Materiel factors**

When materiel elements become inadequate or counterproductive to the operation of the vehicle/equipment/system.

**Maximum credible event**

The maximum credible event is the most disastrous maximum credible loss identified for a given system or operation. In explosives and chemical agent hazards evaluation, the maximum credible event due to a hypothesized accidental explosion, fire, or toxic chemical agent release (with explosives contribution) is the worst single event that is likely to occur from a given quantity and disposition of A&E. The event must be realistic with a reasonable likelihood of occurrence considering the means of initiation, explosion propagation, burning rate characteristics, and physical protection given to the items involved. The maximum credible event evaluated on this basis may then be used as a basis for effects calculations and casualty predictions.

**Maximum credible loss**

The maximum credible loss is the most probable, believable, and catastrophic outcome of a hazard's affect on mission, personnel, facilities, and/or environment due to the occurrence of a particular event or series of events. A maximum credible loss is identified for the possible initiation of each cause associated with a given hazard resulting in undesired results.

**Medical surveillance**

A program composed of pre-placement, job transfer, periodic, and termination examinations that are provided to all personnel potentially exposed to chemical agent health hazards in the work environment.

**Medical treatment**

Medical treatment is the management and care of a patient to combat disease or disorder. It does not include—

- a. Visits to a physician or licensed health care professional solely for observation or counseling.
- b. Diagnostic procedures.
- c. First aid.



### **Military operations in urban terrain (MOUT)**

A terrain complex where manmade construction impacts on the tactical options available to commanders. These MOUT facilities replicate urban environments.

### **Military personnel**

All Soldiers; that is, U.S. Army active duty personnel; USAR or ARNG personnel on active duty or full-time National Guard duty or in a paid drill status; Service Academy midshipmen/cadets; ROTC cadets when engaged in directed training activities; foreign national military personnel assigned to DA; and members of other United States uniformed services assigned to DA.

### **Military unique equipment, systems, and operations**

The term uniquely military equipment, systems, and operations excludes from the scope of 29 CFR 1960, Basic Program Elements for Federal Employee Occupational Safety and Health Programs and Related Matters, the design of DOD equipment and systems that are unique to the national defense mission, such as military aircraft, ships, submarines, missiles, and missile sites, early warning systems, military space systems, artillery, tanks, and tactical vehicles; and excludes operations that are uniquely military such as field maneuvers, naval operations, military flight operations, associated research test and development activities, and actions required under emergency conditions. The term includes within the scope of the Order Department of Defense workplaces and operations comparable to those of industry in the private sector such as Vessel, aircraft, and vehicle repair, overhaul, and modification (except for equipment trials); construction; supply services; civil engineering or public works; medical services; and office work.

### **Monitoring**

The continued or periodic act of seeking to determine whether a chemical agent is present.

### **Motorcycle**

Powered two- and three-wheeled vehicles, including mopeds and motorbikes.

### **Munitions and explosives of concern (MEC)**

This term, which distinguishes specific categories of military munitions that may pose unique explosives safety risks means — unexploded ordnance, as defined in 10 USC 101(e)(5)(A) through (C); (B); discarded military munitions (DMM), as defined in 10 USC 2710(e)(2); or munitions constituents (for example, TNT, RDX) present in high enough concentrations to pose an explosive hazard.

### **Munitions response**

Response actions, including investigation, removal actions and remedial actions to address the explosives safety, human health, or environmental risks presented by unexploded ordnance, discarded military munitions (DMM), or munitions constituents (MC).

### **Mustard**

The chemical bis(2-chloroethyl)sulfide, chemical abstracts service registry No. 505-60-2, in pure form and in the various impure forms that may be found in munitions as well as field, industrial, or laboratory operations. These include Levinstein mustard (H), distilled mustard (HD), and closely related preparations. This standard is not meant to be applied to nitrogen mustards.

### **Near miss**

A potentially serious accident or incident that could have resulted in personal injury, death, or property damage, damage to the environment and/or illness but did not occur due to one or more factors.

### **Nerve agent**

A lethal agent that causes casualties by interfering with the ability of muscles to relax after stimulation by associated nerves.

### **Neutralization**

The act of altering the chemical, physical, and toxicological properties to render the chemical agent ineffective for use as intended.

### **Nonappropriated Fund (NAF) employees**

Employees paid from NAFs, including summer and winter hires and special NAF program employees. Military personnel working part-time in NAF employment are excluded.

### **Non-DOD component**

Any entity (Government, private, or corporate) that is not a part of DOD.

### **Note**

Additional information provided to expand understanding of the subject and to call attention to areas of interest.

### **Nuclear weapon**

A device in which the explosion results from the energy released by reactions involving atomic nuclei, either fission, fusion, or both. For the purpose of this regulation, nuclear components of weapons are also included.

### **Occupational hazard**

Conditions, procedures, and practices directly related to the work environment that creates a potential for producing occupational injuries or illnesses.

### **Occupational illness**

Nontraumatic physiological harm or loss of capacity produced by systemic infection; continued or repeated stress or strain; for example, exposure to toxins, poisons, fumes; or other continued and repeated exposures to conditions of the work environment over a long period of time. Includes any abnormal physical or psychological condition or disorder resulting from an injury, caused by long or short-term exposure to chemical, biological, or physical agents associated with the occupational environment. For practical purposes, an occupational illness is any reported condition that does not meet the definition of an injury.

### **Occupational illness to military or Army civilian personnel**

Injury to on-duty Army civilian personnel. Army military on-duty or off-duty.

### **Occupational injury**

A wound or other condition of the body caused by external force, including stress or strain. The injury is identifiable as to time and place of the occurrence and a member or function of the body affected, and is caused by a specific event, incident, or series of events or incidents within a single day or work shift.

### **Office**

Activities associated with the performance of clerical, typing, and administrative type duties. Excludes supervisory activities. Examples: Typing/work processing, filing/posting, telephoning, operating office machines.

### **Off duty**

Army personnel are off-duty when they—

Are not in an on-duty status, whether on or off Army installations.

Have departed official duty station, TDY station, or ship at termination of normal work schedule.

Are on leave and/or liberty.

Are traveling before and after official duties, such as driving to and from work.

Are participating in voluntary and/or installation team sports.

Are on permissive (no cost to Government other than pay) TDY.

Are on lunch or other rest break engaged in activities unrelated to eating or resting.

### **Officer in charge**

The officer, warrant officer, or NCO responsible for personnel conducting firing or operations within the training complex.

### **On-duty**

Army personnel are considered on-duty, for purposes of accidents, when they are—

Physically present at any location where they are to perform their officially assigned work. (This includes those activities incident to normal work activities that occur on Army installations, such as lunch, coffee, or rest breaks, and all activities aboard vessels.

Being transported by DOD or commercial conveyance for the purpose of performing officially assigned work. (This includes reimbursable travel in POVs for performing TDY, but not routine travel to and from work.)

Participating in compulsory physical training activities (including compulsory sports) or other installation events.

### **Operating vehicle or vessel**

Activities associated with operating vehicles or vessels under power. Examples: Driving, convoying/road marching, towing/pushing, mowing, hauling/transporting, driver testing, flying, vehicle road testing.

### **Operational control**

Operational control is the authority to perform those functions of command over subordinate forces involving organizing and employing command and forces, assigning tasks, designating objectives, and giving authoritative direction necessary to accomplish the mission. Operational control includes authoritative direction over all aspects of military operations and Joint training necessary to accomplish missions assigned to the command. It does not, in and of itself, include authoritative direction for logistics or matters of administration, discipline, internal organization, or unit training.

### **Overhead fire**

Weapon system firing that is delivered over the heads of unprotected personnel in training or personnel located anywhere in the surface danger zone.

### **Over-the-road**

Operation or driving on paved roads/highways.

### **Permanent partial disability**

Any injury or occupational illness that does not result in death or permanent total disability but in the opinion of competent medical authority, results in the loss or permanent impairment of any part of the body, with the following exceptions:

Loss of teeth—loss of fingernails or toenails.

Loss of tip of fingers or tip of toe without bone involvement—inguinal hernia, if it is repaired.

Disfigurement—sprains or strains that do not cause permanent limitation of motion.

### **Permanent total disability**

Any nonfatal injury or occupational illness that, in the opinion of competent medical authority, permanently and totally incapacitates a person to the extent that he or she cannot follow any gainful employment. (The loss or loss of use of both hands, feet, eyes, or any combination thereof as a result of a single accident will be considered as permanent total disability.)

### **Physical training**

Body conditioning or confidence building activities, excludes combat skills development. Examples: Confidence courses, combat football, combat basketball, push-ball, marches, calisthenics, pugil stick, running/jogging, physical training test.

### **Positive control**

At a burning site, this is a means to prevent items, energetic material, or embers from being ejected to a place where they could cause injury or damage.

### **Probability**

Probability is the qualitative or quantitative likelihood of a particular event or sequence of actions initiated by a hazard-related Cause resulting in the Maximum Credible Loss. The Probability can be expressed as the product of the Incident Rate and Mishap Set Likelihood.

### **Project-product manager**

Individual chartered to conduct business on behalf of the Army who reports to and receives direction from either a PEO, the AAE, or other materiel developer and is responsible for the centralized management of a specified acquisition program.

### **Project the force**

One of the Army's four core capabilities. This capability includes the processes of tailoring, mobilizing and projection of land power, and supporting organizational training. Recognized as the overriding capability by which the Army will be measured is the ability to rapidly deploy ready forces into a distant area of operations and keep them coming as dictated by the tempo of battle.

### **Prophylaxis**

Measures designed to preserve health.

### **Quality assurance specialist (ammunition surveillance)**

Department of Army Civilian personnel in the grade of GS-09 or above who have received 2 years of ammunition training and are qualified in accordance with AR 75-1 to assist in performing malfunction investigations.

### **Qualified safety and health personnel**

Includes persons who meet OPM standards for Safety and Occupational Health Manager/Specialist, GS-018, and Safety Engineer, GS/GM-803. Other job specialties will provide support in their respective specialty areas (for example, Safety Engineering Technician, GS-802; Safety Technician, GS-019; Aviation Safety Officer, GS-1825; Air Safety Investigating Officer, GS-1815; Fire Protection Engineer, GS-804; Fire Protection Specialist/Marshal, GS-081; Medical Officer, GS-602; Health Physicist, GS-1306; Industrial Hygienist, GS-690; Occupational Health Nurse, GS-610; Environmental Health Technician, GS-699; or other personnel determined to be equally qualified as compared to the above OPM standards.

### **Quantity/distance**

The quantity of explosives material and distance separation relationships that provide defined types of protection.

### **Research, development, test, and evaluation (RDT&E) dilute solution**

Solutions of chemical agents in concentrations and quantities reduced by admixture (dilution) to levels that can be handled with the same precautions associated with industrial chemicals (acids, bases, and solvents). The following levels are considered RDT&E solutions:

- a. Concentrations of H, HD, HQ, Q, T, or HT not greater than 10 mg/mL (chemical agent/solvent) and containing not greater than 100 mg of chemical agent.
- b. Concentrations of GA, GB, GD, or GF not greater than 2 mg/mL (chemical agent/solvent) and containing a maximum quantity of 20 mg of chemical agent.
- c. Concentrations of VX not greater than 1 mg/mL (chemical agent/solvent) and containing a maximum quantity of 10 mg of chemical agent.
- d. Concentrations of L and HL not greater than 5 mg/mL (chemical agent/solvent) and containing a maximum quantity of 50 mg of chemical agent.

### **Real time**

A period of less than 15 minutes.

### **Recommendations**

Those actions advocated to the command to correct system inadequacies that caused, contributed, could cause or contribute to an Army accident. Also referred to in this regulation as corrective action, remedial measures and/or countermeasures.

### **Recordable accident**

Reportable accident that meets the minimum criteria stated in the regulation for aviation and ground Class A-D accidents.

### **Reportable accident**

All occurrences that cause injury, occupational illness, or property damage of any kind must be reported to the Soldier's/employees/unit's servicing/supporting safety office.

### **Residual hazards**

Hazards that are not eliminated by design.

### **Residual Significant risk**

Residual Significant Risk is any risk remaining in a system after corrective actions have been executed.

### **Residual risk**

The levels of risk remaining after controls have been identified and countermeasures selected for hazards that may result in loss of combat power. Risks remaining after hazard mitigation measures have been applied.

### **Restricted work activity**

Individual's injury is such that they are unable to perform their normal duties (for example, light duty).

**Restricted area**

Any area, usually fenced, at an establishment where the entrance and egress of personnel and vehicular traffic are controlled for reasons of safety and/or security.

**Rigger-in-charge**

The rigger-in-charge has overall control of the operation including: planning all aspects of the lift; determining the weight of the load to be lifted; establishing the appropriate method of communication with the operator; ensuring the load is properly rigged; ensuring the operating envelope remains clear of all obstructions; providing signals to the operator; and conducting the operation in a safe manner (see source for management of weight handling equipment Navy Facility P-307).

**Riot control agent**

A substance that produces temporary irritating or disabling physical effects that disappear within minutes of removal from exposure. There is no significant risk of permanent injury, and medical treatment is rarely required.

**Risk**

Risk is directly related to the ignorance or uncertainty of the consequences of any proposed action. Risk is an expression of possible loss in terms of hazard severity and hazard probability. Risk is the expected value of loss associated with a loss caused by a hazard expressed in dollars. The risk associated with this loss is mathematically derived by multiplying the probability of the loss's likelihood of occurrence by the probable dollar loss associated with the loss's severity. Note that risk has two dimensions—likelihood and magnitude, while a hazard has only one—varied magnitude.

**Risk acceptability**

Risk Acceptability is that level of risk which has been determined as tolerable in order to fulfill mission requirements. It represents a level of risk where either the output of resources to rectify safety deficiencies does not result in a proportional increase in the level of safety to be provided; or so restricts the performance that the assigned mission cannot be executed.

**Risk acceptance**

Risk acceptance is a formal and documented process indicating Army leadership understands the hazard, its associated cause, and the probable consequences to mission, personnel, equipment, public and/or the environment and that they have determined that the total risk is acceptable because of mission execution. Risk acceptance is an Army leadership prerogative.

**Risk assessment**

An evaluation of a risk in terms of loss should a hazard result in an accident and against the benefits to be gained from accepting the risk.

**Risk acceptance level**

Risk Acceptance Levels are used to denote the level of risk a particular level of Army Leadership and Management may accept. These levels are based on the magnitude of the risk involved and the duration of the risk acceptance.

**Risk decision**

The decision to accept or not accept the risk(s) associated with an action; made by the commander, leader, or individual responsible for performing that action and having the appropriate resources to control or eliminate the risk's associated hazard.

**Rocket**

A motor which derives its thrust from ejection of hot gases generated from propellants carried within the motor casing.

**ROTC personnel**

Definition: 1. Members of the ROTC during periods of basic or advanced training at premises owned or under the control of the Army whether on-duty or off-duty. 2. Cadets performing professional enrichment training while under Army supervision and directed by competent orders, regardless of the location of the training site. Regular training on campus is excluded; that is, weekly drill and classroom instruction. 3. Cadets involved in rifle and pistol marksmanship training under Army supervision on any firing range. 4. Cadets undergoing ROTC flight instruction.

**Safety**

Freedom from those conditions that can cause death, injury, occupational illness, or damage to, or loss of, equipment or property.

**Safety assessment report**

A formal, comprehensive safety report summarizing the safety data that has been collected and evaluated during the life cycle before a test of an item. It expresses the considered judgment of the developing agency on the hazard potential of the item, and any actions or precautions that are recommended to minimize these hazards and to reduce the exposure of personnel and equipment to them.

**Safety certification program**

A program established and maintained by the battalion/squadron commander to ensure that personnel under their command designated as officer in charge and RSOs are competent and qualified to carry out the responsibilities and duties of the respective positions.

**Safety confirmation letter**

A separate document or part of the independent evaluation report or position letter that provides the materiel developer with the developmental test or operational test agency safety findings and conclusions, and states whether the specified safety requirements are met.

**Safety controls**

Mandatory procedural safeguards approved by the SA and determined to be necessary per safety studies and reviews. Safety controls ensure maximum safety of chemical agents throughout the life of the chemical weapon. Controls will be consistent with operational requirements.

**Safety objectives**

Criteria for comparing and judging measures for adequacy. Safety objectives incorporate the safest measures consistent with operational requirements.

**Safety release**

A formal document issued to any user or technical test organization before any hands-on training, use, or maintenance by troops. The safety release is a stand-alone document which indicates the system is safe for use and maintenance by typical user troops and describes the specific hazards of the system or item based on test results, inspections, and system safety analyses. Operational limits and precautions are included. The test agency uses the data to integrate safety into test controls and procedures and to determine if the test objectives can be met within these limits. A limited safety release is issued on one particular system (Bradley Fighting Vehicle, Serial No. XXXXX). A Conditional Safety Release is issued when further safety data are pending (for example, completion of further testing or a certain safety test) and restricts a certain aspect of the test.

**Security/law enforcement**

Activities associated with MP, CID, and other military or civilian personnel performing security or law enforcement rescue duties. Examples: Traffic safety, investigating, apprehending suspects, guarding/patrolling, controlling disturbances, intelligence activities.

**Self-aid**

Administration of a chemical agent antidote to oneself upon experiencing early symptoms of chemical agent poisoning.

**Self/buddy aid**

Administration of a chemical agent antidote to one's self or to a co-worker upon experiencing early symptoms of chemical agent poisoning.

**Service contract**

A contract that directly engages the time and effort of a contractor whose primary purpose is to perform an identifiable task rather than to furnish an end item of supply. A service contract may be either a nonpersonal or personal contract. It can also cover services performed by either professional or nonprofessional personnel whether on an individual or organizational basis. Some of the areas in which service contracts are found include the following:

Maintenance, overhaul, repair, servicing, rehabilitation, salvage, modernization, or modification of supplies, systems, or equipment.

Routine recurring maintenance of real property.

Housekeeping and base services.

Advisory and assistance services.



Operation of Government-owned equipment facilities and systems.  
Communications services.  
Architect-engineering.  
Transportation and related services.  
Research and development.

### **Severity**

Severity is a qualitative or quantitative assessment of the degree of injury, occupational illness, property, facility or environmental damage associated with the maximum credible loss. Severity is dependent only on the Maximum Credible Loss. Once established for a Maximum Credible Loss, it does not change only the probability of a Maximum Credible Loss can be reduced.

### **Significant risk**

A risk associated with a particular hazard where the hazard likelihood of occurrence and its potential impact on the mission, person, equipment or facility is such that it can be reasonably expected to cause bodily harm, damage to equipment or the facility or delay in the execution of the mission unless corrected. Normally, they are assigned a RAC of 1, 2, or 3.

### **Single-hazard risk**

Risk associated with a single hazard of the system. Single hazard risks are characterized by consequence/probability pairs (these risks are typically classified by RAC matrix cells).

### **Single hearing protector (or protection)**

Wearing either earplugs or noise muffs or noise attenuating helmets.

### **Sling out area**

The loading of A&E into cargo nets for transportation beneath a helicopter for resupply of units not accessible by ground transportation or when time or security is a critical factor.

### **Soldiering**

Noncombat activities peculiar to military life, includes receiving instruction/training in such activities, excludes classroom training. Examples: Marching, police call, formation, barracks detail, field sanitation.

### **Special hazards areas**

Areas identified containing hazards which due to their nature could not be eliminated through design selection and therefore depend upon training, procedures and PPE for control of the hazards to tolerable levels. Examples are paint booths, kitchens, machine shops, areas around conveyor belts, hazardous chemical storage areas, and so forth.

### **Special use airspace**

Airspace of defined dimension identified by an area on the surface of the earth wherein activities must be confined because of their nature and or wherein limitations that may be imposed upon aircraft operations that are not a part of those activities.

### **Sports**

Includes activities associated with sports, regardless of whether the participation is on-duty or off-duty, Army supervised or unsupervised, excludes hobbies. Examples: racquetball/paddleball, handball, softball, tennis, soccer, baseball, basketball, football, volleyball, skiing, swimming, scuba diving, golf, boating, hunting, fishing, martial arts, canoeing.

### **Standards failure**

Standards/procedures not clear or practical, or do not exist.

### **Supervisory**

Activities associated with the management of personnel. Examples: Inspection tasks, directing workloads/work crews, monitoring work, crews, planning unit activities.

### **Surveillance**

The observation, inspection, investigation, test, study, and classification of ammunition, ammunition components, and explosives in movement, storage, and use with respect to degree of serviceability and rate of deterioration.

**Support failure**

Inadequate equipment/facilities/services in type, design, availability, or condition, or insufficient number/type of personnel, which influenced human error, resulting in an Army accident.

**Sustain the Force**

One of the Army's four core capabilities. This capability includes the processes of acquiring, maintaining and sustaining equipment; maintaining and sustaining land operations; acquiring and sustaining infrastructure and operating installations.

**System**

A composite, at any level of complexity, of trained personnel, procedures, materials, tools, equipment, facilities, and software. The elements of this composite entity are used together in the intended operational or support environment to perform a given task or achieve a specific production, support, or mission requirement.

**System inadequacy**

A tangible or intangible element that did not operate to standards, resulting in human error or materiel failure. Also referred to as causes, readiness shortcomings and/or root causes.

**System safety**

The application of engineering and management principles, criteria, and techniques to optimize safety within the constraints of operational effectiveness, time, and cost throughout all phases of systems', equipment's, or facilities' life cycle.

**System safety engineering**

An engineering discipline requiring specialized professional knowledge and skills in applying scientific and engineering principles, criteria, and techniques to identify and eliminate hazards or reduce the risk associated with the hazards.

**System safety lessons learned**

A collection of real or potential safety or health-related problems based on data analysis or experience that can be applied to future and current systems to prevent similar recurrences.

**System safety management**

An element of management that defines the system safety program requirements and ensures the planning, implementation, and accomplishment of system safety tasks and activities consistent with the overall program requirements.

**System safety management plan (SSMP)**

A management plan that defines the system safety program requirements of the Government. It ensures the planning, implementation and accomplishment of system safety tasks and activities consistent with the overall program requirements.

**System safety program plan (SSPP)**

A description of planned methods to be used by the contractor to implement the tailored requirements of MIL-STD-882D, including organizational responsibilities, resources, method of accomplishment, milestones, depth of effort, and integration with other program engineering and management activities and related systems.

**System safety risk assessment (SSRA)**

A document that provides a comprehensive evaluation of the safety risk being assumed for the system under consideration at the MDR.

**System safety working group (SSWG)**

A group, chartered by the PM, to provide program management with system safety expertise and to ensure communication among all participants.

**Tactical facilities**

Prepared locations with an assigned combat mission, such as missile launch facilities, alert aircraft parking areas, or fixed gun positions.

**Tactical field operations**

Two types— Actual— An active theater or area of combat operations; Simulated— An operational area established for training in which combat operations are simulated.

**Technical tester**

The command or agency that plans, conducts, and reports the results of Army development testing on behalf of the command or agency.

**Technical tests**

A generic term for testing which gathers technical data during the conduct of development testing, technical feasibility testing, qualification testing, Joint development testing, and contractor or foreign testing.

**Test agency**

An organization that conducts development tests or user tests.

**Test/study/experiments**

Activities associated with the conduct of tests, studies, and experiments on natural or man-made materiel or on human beings or animals for research projects. Examples: Preparing for test/study/experiment, performing test/study/experiment.

**Tolerable risk**

The level of risk associated with a specific hazard below which a hazard does not warrant any expenditure of resources to mitigate. From a legal standpoint it would be considered as a “de minimis” risk, from the Latin phrase “de minimis noncurat lex” meaning “the law does not concern itself with trifles.”

**Toxic chemicals**

The EPA uses the term toxic chemical for chemicals whose total emissions or releases must be reported annually by owners and operators of certain facilities that manufacture, process, or otherwise use a listed toxic chemical. The list of toxic chemicals is identified in Title III of SARA.

**Toxicity**

The property possessed by a material that enables it to injure the physiological mechanism of an organism by chemical means, with the maximum effect being incapacitation or death.

**Toxin**

Toxic material of biologic origin that has been isolated from the parent organism. The toxic material of plants, animals, or microorganisms.

**Training related death**

A death associated with a noncombat military exercise or training activity that is designed to develop a military member’s physical ability or to maintain or increase individual/collective combat and/or peacekeeping skills, and is due to either an accident or the result of natural causes occurring during or within one hour after any training activity where the exercise or activity could be a contributing factor. This does not apply to Army civilians participating in a wellness program.

**Unexploded ordnance (UXO)**

Ammunition and explosives that have been primed, fused, armed, or otherwise prepared for action and that have been fired, dropped, launched, projected, or placed in such a manner as to constitute a hazard to operations, installations, personnel, or materiel, and remain unexploded by malfunction, by design, or for any other cause. Unexploded ordnance is synonymous for the dud.

**Unmanned aircraft system (UAS)**

Powered, aerial vehicles that do not carry human operators, uses aerodynamic forces to provide vehicle lift, can fly autonomously or is remotely operated, can be expendable or recoverable, and can carry a lethal or nonlethal payload. Ballistic or semiballistic vehicles, cruise missiles, unmanned aircraft rocket or rocket assisted launch, and artillery projectiles are not considered UAS.

**User test**

A generic term which encompasses testing which requires the use of user representative user troops and units for early user test and experimentation, force development test and experimentation, innovative tests, concept evaluation program tests, training effectiveness analysis tests, initial operational test and evaluation, follow-on operational test and evaluation, and Joint user tests.

**Volunteers**

Individuals who serve as unpaid assistants to facilitate the commander’s ability to provide comprehensive, coordinated,

and responsive services that support the readiness of Soldiers, Army civilians employees, and their families by maximizing technology and resources, adapting resources to unique installation requirements, eliminating duplication in service delivery, and increasing service effectiveness. An installation can have many types of volunteers, with each having specific guidelines that govern its management: statutory volunteers; individuals providing gratuitous service; volunteers for private organizations, and student interns.

**Workplace**

A place (whether or not within or forming part of a building, structure, or vehicle) where any person is to work, is working, for the time being works, or customarily works, for gain or reward; and in relation to an employee, includes a place, or part of a place, under the control of the employer (not being domestic accommodation provided for the employee).

**Work-related injuries**

Injuries or occupational illnesses incurred while performing duties in an on-duty status.

**Worst single-hazard risk**

Consequence/probability pair representing the highest system risk.

**Vesicant agent**

Blister agent.

**Section III**

**Special Abbreviations and Terms**

This section contains no entries.

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