NYARNG PAMPHLET NUMBER 385-10

Safety and Occupational Health

SAFETY AND OCCUPATIONAL HEALTH (SOH) PROGRAM



Headquarters New York Army National Guard 330 Old Niskayuna Road Latham New York 12110-3514

14 June 2019 UNCLASSIFIED

SUMMARY OF CHANGE

NYARNG Pamphlet Number 385-10, Safety and Occupational Health Program, 14 June 2019.

This pamphlet is new.

Summary. This pamphlet matches requirements from AR 385-10 and NG Supplement 1 to AR 385-10. This pamphlet implements requirements of the Occupational Safety and Health Act of 1970 (OSHA) as implemented in Executive Order 12196; Title 29 Code of Federal regulations (CFRs) 1960; Department of Defense Instructions (DoDI) 6055.01, 6055.04, 6055.07; Army Regulations (AR), AR 385-10, National Guard (NG) Supplement 1 to AR 385-10, AR/NG Safety Program 385 Series publications; Army/NGB Policies; and Army/NGB Directives AR 385-10. This prescribes the basic NY Army National Guard (NYARNG) Safety and Occupational Health program procedures and policy guidance for establishing responsibility for administering, maintaining, and effectively managing assigned, attached, or operationally controlled functional areas and operations to/by the NYARNG. This pamphlet will be used in conjunction with OSHA, DoDI, AR's, DA Pam's, NG Supplements and Pam's; and other applicable New York National Guard policies and directives.

Applicability. This pamphlet applies to all military and civilian personnel assigned to or working in support of the NYARNG. This includes all units and activities, DA civilians and contractors working on NYARNG property. This pamphlet does not apply to units or military personnel that are in active federal service under a call to active duty. For the purpose of this pamphlet, The Adjutant General is the Installation Commander.

Proponent. The proponent of this pamphlet is the Aviation and Safety Directorate. Requests for information regarding clarification, purpose or intent of the guidance contained herein, should be directed to MNAV-OS, Latham, NY 12110-3514

Supplementation. NYARNG units and organizations are authorized to supplement contents of this pamphlet except statutory and DoDI directed requirements. Supplemental directives will not be less stringent than guidance requirements contained herein. If supplements are issued, NYARNG units and organizational will coordinate the publication through NYARNG SOH Office prior to approval.

HEADQUARTERS NEW YORK ARMY NATIONAL 330 Old Niskayuna Road Latham, New York 12110-3514

NYARNG Pamphlet Number 385-10

14 June 2019

Safety and Occupational Health (SOH) Program

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CHAPTER 1

ARMY SAFETY PROGRAM

1-1. Purpose.

- **a.** This Safety and Occupational Health (SOH) program prescribes the NYARNG policy, responsibilities and procedures to safeguard and preserve NYARNG resources (to include Soldiers, DA civilians and property and equipment) against accidental loss. It establishes risk management (RM) as the principle risk reduction methodology and ensures regulatory and statutory compliance.
- **b.** This SOH primary purpose is establishing the basic organizational framework to allow commanders to achieve success, excellence, and productivity. Specifically, this effort is designed to:
- (1) Establish policies, procedures and responsibilities for implementation of the NYARNG SOH program and ensure protection of the force.
- (2) Promote safe and healthful practices for all NYARNG personnel and activities including support of State and federal civilian authorities and public safety programs.
- **(3)** Provide responsibilities, policies, and duties for the integration of risk management (RM) into existing command processes.
- (4) Supplement directives in AR 385-10 and NG Supplement 1 to AR 385-10 and provides policy necessary for planning, organizing, coordinating and implementing the NYARNG SOH programs.
- (5) Recognize safety as an integral component of all NYARNG training and operations.
- **1-2. References.** Required and related publications and referenced and prescribed forms are listed in Appendix A.
- **1-3. Explanation of Abbreviations and Terms.** Abbreviations and terms used in this pamphlet are explained in Appendix G and H.

1-4. Policy.

a. The Safety and Occupational Health Program of the NYARNG is to increase readiness through the elimination of accidents, deaths, and occupational injuries and illnesses.

- **b**. To reduce costs and eliminate unnecessary expenditures mandated by 31 USC 1101 note, 1105, 1115 note, 1116 through 1119, 1982 and supplemental 1998.
- **c**. To hold commanders responsible for SOH Program performance. Managers, supervisors, military personnel, and civilian workers are accountable for preventing accidents and workplace illness, but the ultimate safety of human and material resources is a command responsibility.
- **d**. To require all new and modernized weapons systems and construction projects to meet applicable safety, life-safety, fire protection, and health standards.
- **e.** Implement the standards promulgated by the Occupational Safety and Health (OSH) Act of 1970 Public Law 91-596, as implemented in Executive Order 12196, 29 Code Federal Regulations (CFR) Part 1960, 29 CFR 1910, 29 CFR 1926, Department of Defense Instructions 6055.1, 6055.04, and 6055.07; AR 385-10 and NG Supplement 1 to AR 385-10 to provide a safe and healthful environment.
- **f.** The NYARNG SOH Office will coordinate with Joint Force Headquarters Staff offices on appropriate issues as necessary.
- **g.** The NYARNG will comply with the regulatory requirements in all non-military operations and workplaces, regardless of whether work is performed by military or NYARNG civilian personnel.
- **h.** Risk management (RM) is the principle means to accomplish the risk reduction methodology of the NYARNG SOH program:
- (1) RM does not convey authority to violate or deliberately violate local, state, national, or host nation laws.
- **(2)** RM does not justify disregard of regulatory restrictions and applicable standards.
- (3) RM does not justify bypassing risk controls required by law, such as life safety and fire protection codes, physical security, transport and disposal of hazardous material and waste, or storage of classified material. Commanders may not use RM to alter or bypass legislative intent.

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- i. Safety is a commanders program.
- **j.** To eliminate accidents, deaths, and occupational illnesses apply RM strategies towards achieving a goal of significant annual reductions in all accidents and occupational injuries or illnesses, with the ultimate goal of zero accidents, no occupational injuries or illnesses, and compliance with Army SOH standards and policies.
- **k.** Mandate compliance with the standards promulgated by OSHA under section 651, Title 29, United States Code 29 USC 651 or host nation requirements in all non-military unique DoD operations and workplaces.
- **1-5.** Chief, National Guard Bureau (CNGB). Establish NGB Safety Program. This responsibility includes ensuring compliance with Safety and Occupational Health (SOH) statutory and regulatory requirements. Authority over the program is delegated to the Director, ARNG.

1-6. Director, Army National Guard (DARNG).

- **a.** Require safety integration into all ARNG disciplines.
- **b.** Receive reports and updates from the ARNG Safety Executive Advisory Council and the ARNG SOH Committee.
- **c.** Brief program shortcomings, funding shortages, and staffing shortages to the Chief, NGB.
- **d.** Require ARNG to utilize local controls and program assessments for evaluating agency statutory and regulatory compliance. C/ARNG-AVS and C/ARNG-IG will conduct random independent program audits to ensure effective compliance.
 - **e.** Establish sufficient staff positions to adequately carry out program requirements.

1-7. Chief, Aviation and Safety Division (C/ARNG-AV).

- **a.** The Chief, Aviation and Safety Division (C/ARNG-AV) is the ARNG Safety Director.
- **b.** Serve as principal advisor to the commander in all SOH-related matters of mission execution pertaining to this regulation and SOH regulatory and statutory requirements.

- **c.** Execute the commander's SOH Program.
- **d.** Communicate best practices and share lessons learned.
- **e.** Implement the ARNG Headquarters (ARNG HQ) Safety and Occupational Health (SOH) Program as established by the DARNG.
- **f.** Coordinate with the Headquarters, Department of the Army (HQDA) Staff, National Guard Bureau (NGB) Staff, The Adjutants General (TAG) of the United States, Territories, and District of Columbia, and other agencies as necessary on matters pertaining to ARNG accident prevention and occupational illnesses.
- **g.** Appoint ARNG HQ Safety Staff personnel to support the ARNG safety organizational structure according to AR 385-10.
- **h.** Brief safety program status to the DARNG on a semi-annual basis at a minimum.
- **i.** Identify resources necessary to achieve safety compliance throughout the ARNG IAW statutory and regulatory standards.
- **j.** Serve as the approving authority for all Class A and B aviation and ground accidents, and Class C aviation accidents.

1-8. Chief, Safety and Standardization Branch (C/ARNG-AVS). C/ARNG-AVS will:

- **a.** Manage and execute the ARNG Safety and Occupational Health (SOH) Program as directed by C/ARNG-AV IAW applicable statutes, standards, and this supplement.
- **b.** Develop and implement policy, regulations, directives, and training doctrine to integrate SOH management system concepts and Risk Management (RM) techniques, and ensure adequate provisions for safety and safe physical standards are incorporated into ARNG SOH Programs.
 - **c.** Identify funding requirements and request resources to support ARNG SOH Programs.
- **d.** Ensure career development and continuing education opportunities for ARNG-AVS personnel, ARNG SOHM, and other designated SOH and Aviation Safety personnel.

- e. Provide control measures for effective ARNG Accident Prevention Programs.
- **f.** Review applicable ARNG safety regulations, safety council charters, and safety plans for currency at least every two years or as needed.
- **g.** Establish requirements and provide training for ARNG Certified Accident Investigators (CAI).
- **h.** Develop, implement, standardize, and facilitate the ARNG Safety Program through a staff of qualified safety professionals to accomplish all aspects of safety requirements as directed in AR 385 series directives and this pamphlet including but not limited to general safety, workplace safety, tactical safety, airborne safety, explosive safety, range safety, and aviation accident prevention.

1-9. The Adjutant General (TAG) and Assistant Adjutant General (AAG).

- **a.** Ensure the full and effective implementation of the State NYARNG SOH program in accordance with 29 CFR Part 1960, 29 CFR 1910, DoDI 6055.01, 6055.04, and 6055.07; and AR 385-10. Where installation or installation commander is cited in substitute the meaning to read state and/or TAG. The state is considered an installation to meet the requirements of AR 385-10, NG Supplement 1 to AR 385-10 and this SOH program.
- **b.** Designate a Safety and Occupational Health Manager (SOHM) and an adequate staff of qualified safety professionals to accomplish all aspects of safety requirements as directed in AR/NG 385 series directives.
- **c.** Direct commanders and supervisors to integrate safety and occupational health information into training plans, and literature.
- **d.** Ensure that the NYARNG budget submission includes appropriate financial and other resources to effectively implement and administer the NYARNG SOH Program; provide for training/funding requirements as directed in AR/NG 385 series directives.
- **e.** Ensure the full and effective implementation of the NYARNG SOH program throughout the State. This includes:
 - (1) Providing a safe and healthful workplace and environment.

(2) Providing RM training to military and federal civilian personnel that integrates RM into NYARNG operations throughout their command.

- (3) Providing hazard recognition and abatement training specific to the work site or activity.
 - (4) Establishing safe practices and procedures.
- **(5)** Monitoring workplaces and practices to ensure adherence to established procedures and the prompt correction of unsafe acts and conditions.
 - (6) Investigating accidents to determine causes and prevent recurrence.
 - (7) Providing POV safety training and hazard recognition.
- **f.** Chair and appoint the NYARNG Command Safety and Occupational Health Council.
- **g**. Ensure that an AAR is completed on all Class A and B on-duty accidents for the DARNG as outlined in NG Supplement 1 to AR 385-10, Chapter 3.
- **h.** Initiate additional accident prevention measures necessary to control hazards and resource losses for which there are no prescribed or established safety standards or procedures.
- i. Review accident trends and analysis with subordinate commanders, directors and managers to discuss resolutions and causation factors.
- **j.** Establish and enforce procedures for plans that ensure maximum safety during training and tactical operations.
- **k.** Establish procedures for expeditiously funding and fixing hazards based on risk assessment codes (RAC) on a "worst-first" basis.
- **I.** Designate a state radiation safety officer and at least one designated alternate state radiation safety officer.
- **m.** Appoint qualified Local Radiation Protection Officers (LRSO) and Alternate Radiation Protection Officers are appointed at those worksites with Individually. Controlled Radioactive Items, when directed by U.S. Army Communications and Electronics Command (CECOM) Life Cycle Management Command (LCMC), or where

significant potential for exposure exists (e.g. United States Property and Fiscal Office (USP&FO) Warehouse, Combined Support Maintenance Shop).

1-10. Safety and Occupational Health Manager (SOHM). SOHM will:

- **a.** Serve as principle advisor to TAG or commander's advisor in all Safety and Occupational Health matters, and will collaborate with appropriate offices to ensure that all applicable safety programs, functional areas, and systems are operating as required IAW AR 385-10 and NGR Supplement 1 to AR 385-10.
- **b.** Manage the NYARNG SOH program for the TAG by developing, planning, organizing, and executing safety programs as directed in AR 385 series directives and this pamphlet.
- **c.** Conduct and document an annual self-assessment and evaluation of NYARNG SOH program according to AR 385-10, paragraph 2-10(a), Table 1-1, and ARNG assessment checklists. A comprehensive briefing will be provided to TAG or designated leadership on the annual status of applicable 26 state safety program elements. As a minimum, the following core safety functional areas will be addressed:
 - (1) Program Management.
 - (2) Training and Promotion.
 - (3) Inspection/assessments.
 - (4) Mishap Investigation reporting and analysis.
 - (5) Hazard analysis and countermeasures.
- **(6)** Serve as the Executive Secretary of the NYARNG Command Safety and Occupational Health Council.
- (7) Promote and use safety awareness material in an effort to reduce Accidents. Safety awareness programs are offered through the Army or ARNG multi-media center.
- (8) Ensure that all safety and health violations and deviations/CORAs that involve Real Property are immediately communicated to the Construction and Facilities Management Officer (CFMO) for prompt correction.

(9) Manage the State Explosives Safety Management Program IAW AR 385-64.

- (10) Manage the State Range Safety Program IAW AR 385-63.
- **d.** Provides day-to-day functional management of the NYARNG SOH program and works in cooperation with the NYARNG Occupational Health Nurse (OHN).
- **e.** Conduct internal assessments of the NYARNG SOH programs in accordance with the Composite ARNG Safety Development and Assessment Program (CASDAP).

1-11. Occupational Health Nurse (OHN). OHN will:

- **a.** Serve as TAG advisor in all occupational health matters, works in conjunction with industrial hygiene (IH) personnel, and collaborates with appropriate offices to ensure that all applicable programs, functional areas, and systems are operating as required IAW AR 40-5, AR 385-10 and NGR Supplement 1 to AR 385-10.
- **b.** Provides day-to-day functional management of the NYARNG Occupational Health (OH) program.
- **c.** The OHN will meet all requirements of Part 1960, Title 29 Code of Federal Regulations (29 CFR 1960 and 29 CFR 1910).
 - **d.** Provides day-to-day functional management of the following programs:
 - (1) Medical Surveillance
 - (2) Respiratory Protection.
 - (3) Hearing Conservation.
 - (4) Vision Protection.
 - (5) Hazard Communication (HAZCOM).
 - (6) Industrial Hygiene.
- (7) Radiation Surveillance Program, which is a subset of the Radiation Safety Program.

- (8) Ergonomics.
- (9) Other programs as required IAW AR 40-5.

1-12. Safety Specialist and Industrial Health Specialist.

- **a.** The safety specialist and industrial health specialist serves as an advisor to the SOHM and OHN in safety and occupational health matters.
- **b.** Provides day-to-day management of the NYARNG SOH programs IAW AR 385-10 and NGR Supplement 1 to AR 385-10.
- **c.** Implement plans, policies and procedures to comply with OSHA, DoDI, DA, and NGB safety regulations and directives.
 - **d.** Provides inspections to units and/or facilities.

1-13. Commanders. Commanders at all levels will ensure:

- **a.** Elimination of errors and accidents by targeting root causes of errors and accidents. The commander will implement countermeasures for those errors and accidents and develop appropriate controls to ensure that the countermeasure is effective.
- **b.** That all significant risks in training operations are evaluated and minimized by following the guidelines in ATP 5-19 and DoDI 6055.01.
- **c.** That all risks are controlled and risk decisions are documented, using DD Form 2977 and/or Ground Risk Assessment Tool (GRAT) on U.S. Army Safety Center webpage (https://grat.safety.army.mil).
- **d.** Overall responsibility for risk management integration and is the risk acceptance authority.
- **e.** Appropriate residual risk acceptance authority IAW DA Pamphlet 385-30, Chapter 4, Table 4-1 or 4-2.
 - f. That unnecessary safety restrictions in tactical training are eliminated.
- **g.** That new doctrine and equipment is evaluated for risk implications, and controls are established or risk acceptance decisions made.

h. That effective published procedures exist for the conduct of accident prevention and health controls in training.

- i. Appointment of a unit safety officer/non-commissioned officer (NCO) at every unit, armory and other facilities.
- **j.** Completion of the Commander's Safety Course (CSC) within 90 days of assuming command.
- **k.** Publish safety philosophy that incorporates RM and the unit's mission essential task list.
- I. Ensure all battalion, major subordinate command or equivalent commands initiate enrollment into the Army Readiness Assessment Program (ARAP) within 90 days of command assumption.

1-14. Commanders with an Ammunition or Explosives Mission.

- **a.** Establish an Ammunition/Explosives (AE) Safety Management Program in compliance with AR 385-10 and DA Pamphlet 385-64.
- **b.** 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 an Ammunition and Explosive (AE) contracts include appropriate explosives safety training requirements.
- **c.** Annually submit the review of deviations and explosives safety standards to the NYARNG SOHM.
- **d.** Conduct annual inspections and/or audits of AE activities to ensure compliance with the NYARNG ESMP, AR 385-10 and DA Pamphlet 385-64.
 - e. Publish an AE Safety Program policy that addresses:
- (1) Appointment of a primary individual for the AE Safety Program to coordinate with the NYARNG SOHM.
- **(2)** AE designee is part of the unit's regular safety council, committee or certification board to provide command oversight and program review.
 - (3) Risk assessments, management controls and risk acceptance authority.

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(4) Unexploded ordnance (UXO) strategic plans that identify hazards, safety awareness, and appropriate outreach programs.

- (5) Application of AE Safety Standards.
- **(6)** AE site plans, construction requirements, explosives safety submissions, and hazards abatement.
- (7) Request ARNG Quality assurance specialist ammunition surveillance (QASAS) support through the SOH Office.
- **(8)** AE handler training and certification boards to assess capabilities of AE handlers, drivers and supervisors.
- **(9)** AE Safety training and certification program to train and certify AE handlers, drivers and supervisors.
- (10) AE amnesty program and restrictions on use of amnesty boxes or containers.
 - (11) Procedures for AE program throughout the installation.

1-15. Unit Safety Officers/NCOs/Additional Duty Safety Officers (ADSO). The following will:

- **a.** Assist the commander with the unit RM program.
- **b**. Assist the commander in establishing plans and procedures for conducting a unit safety program.
 - **c.** Assist the commander in supervising safety training as required.
- **d.** Assist the commander in conducting safety inspections, reviewing operating and training instructions, and initiating actions necessary to eliminate inherent or accident-producing hazards in coordination with appropriate offices.
- **e.** Assist the commander in ensuring that accidents are investigated and reported IAW AR 385-10, DA Pam 385-40; DoDI 6055.07 and this pamphlet.
- **f.** Coordinate with other unit safety officers and other staff officers to ensure maximum cooperation in connection with safety matters of mutual concern.

g. Arrange for procurement and selective use of safety posters, films, and other educational and promotional publications and materials.

- **h.** Conduct safety inspections.
- i. Complete Additional Duty Safety Course within 90 days of appointment (see Appendix E).
- **j.** Complete additional safety training that provides specific guidance in the techniques of safety management at the unit level. This should include safety responsibilities of the unit safety officer, accident causation, risk management, unit safety programs, hazards and OSHA requirements, vehicle accident prevention, motor vehicle operations, tactical operations, off-duty safety, safety meetings, pre-accident plans, conducting a safety survey and accident reporting and investigating.
- **1-16.** Supervisory and Operating Personnel who Direct or Affect the Actions of Others (such as in Field Maintenance Shops (FMS), Combined Maintenance Shops, Army Aviation Support Facilities (AASF) and Maneuver Area Training Equipment Site (MATES)) will:
 - a. Maintain a safe and healthful workplace.
 - **b.** Inspect the work area for hazards.
 - **c.** Promptly evaluate and take action as required to correct hazards.
- **d.** Be responsible for use of RM during planning, preparation, and execution of all operations.
- **e.** Be responsible for accident prevention to the same extent that they are responsible for production, service, and mission accomplishment.
- **f.** Be held accountable for accidents and property damage occurring in operations under their direct supervision and control.
- **g.** Ensure that Soldiers and DA civilians are trained and competent to perform their work safely.
- **h.** Counsel and take action as necessary with Soldiers or DA 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.

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i. Conduct safety meetings (such as safety awareness, training, and procedures review) with the Soldiers and DA civilians they supervise.

- **j.** Protect Soldiers and DA civilians who identify hazards, raise safety and health concerns, or engage in authorized SOH activities against reprisal.
- **k.** Initiate the necessary actions to facilitate accident notification, investigation, and reporting as soon as they become aware of the occurrence of an accident.
- **I.** Establish accountability for SOH through the performance evaluation system and performance counseling sessions.
- **m.** 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 DA Civilian employees.

1-17. Army Leaders at All Levels. Army leaders at all levels will:

- **a.** Provide leadership to their activity and/or units' SOH program and accident reduction initiatives.
 - **b.** Protect personnel, equipment, and facilities under their commands.
- **c.** Periodically review their activity and/or units' SOH program and accident reduction initiatives.
- **d.** Provide adequate resources for an effective SOH program, compliant with Army policy and program requirements.
- **e.** Establish accountability for SOH through the performance evaluation system and performance counseling sessions.
 - **f.** Implement SOH policies.
- **g.** Integrate RM into mission activities to prevent the accidental loss of personnel, facilities, weapons systems, and equipment during peacetime and wartime.
- **h.** Execute system safety responsibilities as defined in this pamphlet when purchasing materiel, software, or equipment for all Army operations.

i. Coordinate modifications of all Army systems, including software, with all appropriate program/product/project managers.

- **j.** Prohibit visitors from operating any military system, vessel, aircraft, or vehicle which causes or perceives to cause an increase in risk.
- **k.** Provide equipment improvement recommendations or Standard Form (SF) 368 (Product Quality Deficiency Report) for deficiencies, malfunctions, or failures that create unsafe conditions or hazards according to DA Pamphlet 738–751.
- **I.** Ensure that range safety responsibilities and procedures are implemented according to AR 385-63.
- **m.** Ensure written safety guidelines are established as prescribed in this pamphlet and DA Pamphlet 385-10 in areas of responsibility.
- **n.** Commanders or their representatives will ensure that all battalion and battalion-equivalent organizations initiate enrollment into the Army Readiness Assessment Program (ARAP) within 90 days of assumption of command. ARAP is a battalion commander and/or directorate program used to address the root causes of accidental loss by focusing on organizational safety climate and culture.

1-18. Facility Safety Officer/NCO. Facility Safety Officers/NCOs will:

- **a.** Assist the supervisor with the facility RM Program.
- **b.** Assist the supervisor in safety training as required.
- **c.** Assist the supervisor in conducting safety inspections, reviewing operating and training instructions, and initiating actions necessary to eliminate inherent or accident-producing hazards.
 - **d.** Assist the supervisor in ensuring that accidents are investigated and reported.
- **e.** Coordinate with other facility safety officers and other staff to ensure maximum cooperation in connection with safety matters of mutual concern.
- **f.** Arrange for procurement and selective use of safety posters, films, and other educational and promotional publications and materials.
 - **g.** Conduct safety inspections.

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h. Complete the online Additional Duty Safety Officer Course via the Combat Readiness Center's website.

- **1-19. NYARNG Soldiers, Personnel and Army civilians.** NYARNG Soldiers, Personnel and Army civilians will:
 - a. Stop unsafe acts detrimental to NYARNG operations and public safety.
- **b.** Comply with this pamphlet, DoDI 6055.01, AR 385-10, NG Supplement 1 to AR 385-10, the Occupational Safety and Health Act of 1970 (OSH Act), safety regulations, safe work practices, job hazard analysis, and pamphlets.
- **c.** Use all PPE and protective clothing provided, in accordance with training, hazard analyses, work instructions, and as required by the task at hand.
- **d.** Report Army accidents, near misses, and hazards in their workplace as soon as possible to their supervisor or leader.
 - **e**. Employ RM in managing risk.

1-20. Conflict Resolution.

- **a.** All applicable Army regulations and legal standards take precedence over this NYARNG Pamphlet 385-10. If Army safety requirements conflict with a legal standard or provide less protection, the more stringent legal standard shall apply and when Army requirements are greater than or equal to the legal standard, the Army requirements apply.
- **b.** At joint service facilities and during joint operations, the more stringent joint service or Army safety requirements shall apply.
 - **c.** For the purpose of the NYARNG:
- (1) TAG is the installation commander. Training site commanders are not installation commanders. State Adjutant General is the only installation approval authority when required by all applicable standards. TAG can delegate his approval authority but no lower than the Assistant AG-Army (AAG-Army).
- (2) Title 32 and Title 5 Technicians are considered Department of Army civilians unless in a military pay status.

(3) All of the responsibilities defined above shall be consistent with or add to the Safety Program responsibilities for specific commands IAW DA Pamphlet 385-10, paragraph 1-4(o) through para 1-4(w) as applicable.

CHAPTER 2

STRATEGIC PLANNING, NYARNG SAFETY PROGRAM STRUCTURE, SAFETY PROGRAM EVALUATION, COUNCILS AND COMMITEES

2-1. Safety Program Strategic Planning.

- **a.** The NYARNG SOH Office will develop strategic goals and objectives that support TAG strategic goals and objectives as well as NGB's goals and objectives. The Safety and Occupational Health program shall be based upon the organizations mission, goals and objectives as well as statutory requirements IAW AR 385-10.
- **b.** The goals and objectives will have metrics assigned to measure success or need for changes.
- **c.** The plan will be reviewed annually and safety tasks and functions will be prioritized based on regulatory requirements in AR 385-10 and DA Pamphlet 385-10.
- **d.** NYARNG SOH Office will develop a strategic plan that includes annual organizational accident prevention goals, objectives and incorporates HQDA annual goals and objectives and submit these results to the NYARNG SOH Office annually.

2-2. NYARNG SOH Office Organizational Structure.

- **a.** The NYARNG SOHM will be a member of the commanders special staff reporting directly to the commander or the chief of staff. The NYARNG SOH Manger shall meet Office of Personnel Management (OPM) standards for the positions of occupational safety and health.
- **b.** The NYARNG SOH Office will be staffed and configured in accordance with (IAW) currently approved manpower staffing models and AR 385-10.
- c. The NYARNG SOHM/Safety Specialists will complete all CP-12 professional requirements listed in AR 385-10. Personnel assigned to the NYARNG SOH Office, and all other CP-12 professionals within the NYARNG will be aware of the Safety and Occupational Health competency and training requirements as specified in the CP-12 Army Civilian Training and Education System. CP-12 professionals within the NYARNG will adhere to AR 385-10, Appendix G and become qualified within 18 months of hire.

d. The NYARNG SOHM will ensure the SOH Office is funded and fully resourced to execute all responsibilities and functions designated in AR 385-10 to assure Safety Program effectiveness as prioritized in the commanders approved safety functions and tasks prioritization.

- **e.** Personnel selected for safety positions must meet and maintain position qualifications through required ARNG certification and continuing education for career development. Professional safety certification by recognized civilian organizations is necessary when required in the duty position description.
- **f.** Additional duty safety personnel will be appointed by commanders to perform required safety and accident prevention functions. These personnel will complete the Additional Duty Safety Officer Course within 90 days of appointment. Brigade, battalion and company safety officers may complete the Ground Safety Officer Course (GSOC) at Ft. Rucker if funding is available. Contact the NYARNG SOHM for assistance.
- **g.** The NYARNG SOH Office shall work with the NYARNG leadership to ensure that additional duty safety officers are used to augment the Army Headquarters and subordinate commands safety programs. The SOH Office shall work with the NYARNG leadership to monitor and ensure that additional duty safety officers are properly appointed, trained and effective at their jobs.

2-3. Safety Program Evaluation.

- **a.** The NYARNG SOH Office shall conduct an annual command level programmatic audit to internally self-assess its overall effectiveness of management controls integrating the Army Safety Program into their business process and mission execution.
- **b.** The NYARNG SOH Office shall conduct audits of subordinate Command Safety programs IAW DA Pamphlet 385-10 at least every 3 years to assess overall effectiveness of management controls for integrating Army Safety Programs. These audit results will be briefed to the major subordinate command (MSC) commanders as appropriate.
- **c.** The NYARNG SOH Office shall review progress in implementing the strategic plan and performance against organizational and Department of the Army goals and objectives on a quarterly basis.

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2-4. NYARNG Command Safety and Occupational Health Council. The NYARNG Command Safety and Occupational Health Council provides safety recommendations to TAG/AAG based on their collective expertise and interfaces with other functional advisory committees and councils. The commanders' regular oversight process shall include metrics from the SOH regarding accident rate occurrences, severity, and cost. TAG/AAG shall review accident trends and analysis with the MSC commanders, directors and managers to discuss resolution to causation factors.

a. Objectives:

- (1) Encourage and promote command awareness and participation in state safety programs.
- **(2)** Review accident and occupational illnesses experienced and prevention programs of the command.
 - (3) Review reports of fatal or other serious accidents and occupational illnesses.
- (4) Review deviations, CORAs, hazard logs, RAC's, and mitigation plans of the command or activity.
- **(5)** Review employee safety suggestions to improve work conditions and increase efficiency.
- **(6)** Address safety and/or occupational health concerns from all NYARNG units and activities.
 - **b.** Membership at the state level should consist of:
 - (1) TAG/AAG/Deputy AG (Army) or the Chief of Staff (chairperson).
 - **(2)** USP&FO.
 - (3) Plans Operation and Training Officer.
 - (4) Director of Facilities Engineering (DFE) Officer.
 - **(5)** Logistics Officer.

- (6) Personnel Officer.
- (7) State Aviation Officer.
- (8) State SOHM (designated the executive secretary).
- (9) Non-management technician representing the union.
- (10) Occupational Health Nurse
- (11) A senior representative of each O-6 Command
- (12) Other senior staff heads (as directed by TAG).
- c. Membership for O-6 Command Safety Councils should consist of:
 - (1) 0-6 Command Rep.
 - (2) Command Sergeant Majors.
- (3) Safety Officers/NCOs' from each command represented; to include motor pool officers, training officers and other staff heads as appropriate.
- **d.** Meetings. The NYARNG Command Safety and Occupational Health Council meetings will be conducted quarterly. Safety Council meetings below state level will be conducted at least semi-annually. These Safety and Occupational Health advisory councils will be conducted at all levels of the organization.
- **e.** Reporting Requirements. Written copies of the minutes will be maintained. Electronic storage is acceptable.
- **2-5. Safety Conferences/Workshops/Stand-downs.** The NYARNG will conduct an annual safety conference/workshop for selected supervisory and staff personnel. The NYARNG will conduct Unit Safety Management Courses upon request. Aviation will also conduct an annual stand-down. Additional training is encouraged across the workforce.

CHAPTER 3

NYARNG GROUND AND AVIATION ACCIDENT REPORTING, INVESTIGATING, AND RECORDKEEPING

3-1. Introduction. This chapter supplements AR 385-10, NG Supplement 1 to AR 385-10 and DoDI 6055.07 with procedures for reporting, recording, investigating and recordkeeping of all NYARNG aviation and ground accidents.

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- **3-2. Policies.** NYARNG policy is to investigate and report accidents to prevent like occurrences. All NYARNG accidents will be investigated, reported (to include immediate notification as specified in this pamphlet, AR 385-10 and DoDI 6055.07), and analyzed according to the requirements of this pamphlet, AR 385-10, and DA Pamphlet 385-40, the USACR/Safety Center use and preparation guides, and other USACR/Safety Center-developed tools for accident investigation and reporting (see https://safety.army.mil). As part of TAG's regular oversight process, the NYARNG SOH Office shall develop metrics for rate of accident occurrences, severity and analysis with subordinate commanders, directors and managers.
- **3-3. Reportable Accidents.** All accidents or incidents, injuries or occupational illnesses, regardless of how minor, are reportable to the immediate chain of command and to the NYARNG SOH Office. Commanders will ensure that all accidents are reported, recorded and investigated in accordance with procedures established in AR 385-10, DA Pamphlet 385-40, NG Supplement 1 to AR 385-10 and this pamphlet.
- **a.** All on-duty and off-duty accidents or incidents resulting in damage or destruction of NYARNG resources or personnel injury and death must be reported and recorded IAW AR 385-10 and NG Supplement 1 to AR 385-10.
- **b**. All non-duty losses regardless of cause, e.g., accident, murder, suicide, illness, etc. will be reported on a SIR to NYARNG JOC (see DMNA Pamphlet 1-2). All non-duty accidental losses will be recorded as a Class R accident. Non-duty is defined as one who is a member of the NYARNG but is not on orders for duty or performing military duty related tasks.
- **c.** The accident forms can be kept on a computer, or at a central location, provided information can be entered into the system within 7 calendar days after the injury or illness occurs and the data can be produced when required.

d. The instructions below supplement AR 385-10 commander's responsibility for Class A and B accidents and Class C aviation (flight, flight related, or aircraft ground) accident notification. The commander who first becomes aware of the accident will notify:

- (1) The facility commander (for aviation related accidents).
- (2) The state Army Aviation Officer (for aviation related accidents).
- (3) The SOHM.
- (4) The Adjutant General (TAG).
- (5) NYARNG Joint Operations Center (J3-DO-JOC).
- **(6)** For Class A, B, and or C aircraft mishaps, use information collected on DA Form 7305-R to immediately notify the NGB-AVS-S branch chief, 703-607-7731. Please contact the NYARNG Aviation Safety Officer/SOHM for assistance.
 - (7) The USACRC, DSN 558-3410, commercial 344-255-3410.
- (8) For Class A or B ground accidents, use information collected on DA Form 7306-R. Please contact the NYARNG SOH Office, 518-786-6097. The SOHM will E-mail a copy of DA Form 7306-R to NGB-AVS-S.

3-4. Accidents Involving more than one Command.

- **a.** NYARNG commander or supervisor reporting an accident involving an ARNG organization or facility from another state, Active Army or Army Reserve command will ensure that the accident is reported and investigated. A copy of the report will be forwarded to the other states ARNG command or appropriate Active Army or Army Reserve command concerned.
- **b.** Forwarding letter will indicate the command considered responsible for recording the accident and the command(s) responsible for recording other losses, or data (e.g. injuries, property damage, etc.)
- **c.** When concurrence is reached as to the responsibilities and command charged with the accident, the accident report for ARNG recordable accidents will be forwarded IAW AR 385-10 and this pamphlet.

- **d.** Commanders or supervisors closest to the location of an accident involving NYARNG property or personnel in any of the situations listed below will investigate the accident, prepare the accident report, and forward the report to the NYARNG SOH Office, Active Army, or Army Reserve command sustaining the loss in the accident:
- (1) An accident occurring to a NYARNG military member who is absent without leave will be reported if the member is scheduled for training (ADOS, AT, Active Guard Reserve (AGR), Active Duty for Training, or Inactive Duty Training (IDT),) and is carried on the DA Form 1379, U.S. Army Reserve components Unit Record of Reserve Training.
- (2) An accident occurring to a NYARNG military member on a permanent change of station (PCS), leave, pass, or temporary duty, or a NYARNG technician in a temporary duty (TDY) status will be included in the accident records of the NYARNG or to the State to which the person is permanently assigned. For NYARNG military personnel experiencing an accident while assigned to an Army schools course which is longer than 30 days, the accident will be reported and recorded by the MACOM responsible for the school.
 - e. Exceptions to accident reporting procedures:
- (1) Accidents resulting in injury, illness, or death of personnel in a State Active Duty status will be reported in accordance with (IAW) procedures established by OSHA governing notification of civilian employee fatal and or catastrophic accidents (on duty).
- (2) Forward the report to NGB-AVS-S for review and document as a Class R accident. State active duty accidents do not meet recording requirements of AR 385-10.

3-5. Appointing Accident Investigation Boards.

- **a.** NYARNG accident investigation boards will be appointed IAW AR 385-10 and NG Supplement 1 to AR 385-10 for all Class A or B accidents and Class C aviation accidents. When feasible, the president of an Army Aircraft Accident Investigation Board will be an NYARNG member currently on flight status. SOHM will coordinate board membership with USACRC authorities and NGB Safety Office.
- **b.** The responsible State Army Aviation Officer will provide the following accident investigation board members: a maintenance officer, flight surgeon, and an Instructor Pilot or Standardization Instructor Pilot for the type/model/series of aircraft involved.

c. For Class A or B NYARNG ground accident investigation boards, the SOHM will coordinate board membership with USACRC authorities and NGB Safety Office.

3-6. Accident Investigation Report Administration.

- **a.** NYARNG personnel involved in a ground or aviation accident or incident resulting in personnel injury, or damage and/or destruction of NYARNG equipment, will remain immediately available to provide blood and urine samples whenever accident classifications are known or suspected to be Class A or B ground or Class A, B, or C Aviation accidents.
- **b.** Investigations will be performed in accordance with AR 385-10, NG Supplement 1 to AR 385-10 and DA Pamphlet 385-40. Accident board members will give priority to investigation and reporting duties. Appointing authorities will provide clerical and administrative support necessary to result in rapid completion of accident reports. For all Class A and B ground and all Class A, B, or C aviation accidents, TAG will indicate in the reviewing comments, the organization (including Unit Identification Code) to which the accident is being charged, and/or has responsibility for corrective action IAW AR 385-10.
- **c.** Special procedures and reporting instructions for accidents compensable under the Federal Employees Compensation Act (FECA) are described in Chapter 16 of this pamphlet.
- **d.** Accidents involving NYARNG Soldiers assigned on active duty status will be reported to the unit of duty assignment. If the organization of active duty assignment is other than the reserve component, a copy of the accident report will be furnished to the parent reserve unit or NYARNG SOH Office.
- **e.** Additional accident investigation report information in a checklist format for on and off duty accidents is outlined in Appendix C. This information must be included in all accident investigations.
- **f.** At the discretion of the director NYARNG, senior officers may be requested to prepare a brief and report to the NGB staff when their state has experienced a Class A or B ground or aviation accident. The director NYARNG will then determine whether further action by NGB or the state is necessary to implement the recommendations of the Accident Safety Investigation Board.

3-7. Accident Reports, Reporting and Recordkeeping.

- **a.** NYARNG facilities/installations, companies, battalions, regiments and brigades report all mishaps involving NYARNG personnel and/or equipment and complete appropriate paperwork. Mishaps involving GSA vehicles and military vehicles and/or equipment require an SF 91, DA Form 285-AB and witness statement. Police reports should be attached if available. Do not delay submitting paperwork solely to obtain a police report. If the mishap occurs when the SM is in an "on-duty" status, completion of the "Additional Questions" form will also be completed. A copy of this form is contained within Appendix C of this pamphlet. A copy of the DA Form 285-AB will be signed by the responsible unit's POC and unit commander and forwarded to the NYARNG SOH Office within 21 days of the incident. Completion of an LOD investigation or FLIPL is not the same as an accident investigation and accident paperwork must be submitted within the 21-day suspense.
- **b.** The NYARNG SOH Office will maintain accident reports IAW AR 385-10 and AR 25-400-2.

c. Briefing Requirements:

- (1) For every Soldier involved in a Class A or B on-duty accident, the first line supervisor, accompanied by the first/next officer in the chain of command, is required to brief the first general officer in the chain of command with the following minimum information:
- (a) An explanation of the unit's mission, highlighting the Soldier's significant contributions to the mission.
- **(b)** A complete and accurate account of the facts and circumstances surrounding the incident.
- **(c)** An explanation of potential corrective actions which will preclude similar incidents.
- (2) This information will act as the basis for the AAR required for TAG report to the NYARNG following paragraph 2-11 f, above.

3-8. Safeguarding Accident Information. In accordance with AR 385-10, accident reports, and the privileged documents they contain may not be used as evidence or to obtain evidence in any disciplinary, administrative, or legal action.

3-9. Processing Accident Reports.

- **a.** The original and one copy of all Class A or B ground and Class A, B or C aviation accidents will be processed through NGB-AVS-S within the appropriate timelines. All DA Form 2397-AB-R and DA Form 285-AB will be forwarded to NGB-AVS-S via within the appropriate timeframe. NGB is responsible to ensure that all reports are forwarded to the USACRC.
- **b.** The state SOHM will review and sign all DA Form 285 series forms. IAW AR 385-10, paragraph 3-10c, NYARNG SOH personnel and those personnel responsible for conducting accident investigations will not conduct, review, evaluate, assist with, or maintain on file the legal accident investigation reports.
- **3-10.** Release of Information from Accident Investigation Reports. All requests under the provisions of the Freedom of Information Act for information from, or copies of, limited use accident reports or Class A, B, or C General Use Reports, will be referred through command channels to the Commander, U. S. Army Combat Readiness Center/Safety Center, ATTN: CSSC-SS, 5th Avenue, Building 4905, Fort Rucker, AL 36362-5363. The NYARNG SOH Office is authorized to release Class D general use reports IAW AR 385-10, in their entirety, in response to Freedom of Information Act requests after consulting with the Staff Judge Advocate or legal advisor to ensure that complete disclosure would not be in violation of the Freedom of Information Act.
- **3-11. Accident Investigation Board Training.** The NYARNG SOH Office shall conduct training for accident reporting, accident analysis, injury and illness data as well as accident investigation requirements prescribed in AR 385-10 and the Commands Accident Investigation and Reporting requirements upon request and as deemed necessary.

CHAPTER 4

CONTRACTING SAFETY

- **4-1. Safety.** Safety and Occupational Health is a critical consideration in the pre-solicitation phase of each contract. Safety will be an integral part of the design/construction of military facilities/buildings for design, development, production and fielding of Army systems and in services contracts.
- **4-2. Service and Supply Contract Requirements.** The contracting officer will insert FAR Clause 52.236-13, Accident Prevention or the clause with its Alternate in solicitations and contracts when a contract for services to be performed at government facilities (see 48 CFR 37) is contemplated, and when technical representatives advise that special precautions are appropriate. The contracting office, with input from SOH Office, is responsible to evaluate and ensure that contractor complies with OSHA requirements and Chapter 4, AR 385-10. All contracting safety requirements and responsibilities listed in FAR, DFARS and EFARS shall be adhered to and listed in solicitations and contracts as appropriate.
- **4-3. Contractor Responsibilities.** Contractor responsibilities will be included in contracts. At a minimum, these must include:
- **a.** Compliance with OSHA standards, DoD, Army, federal, state, local requirements.
 - **b.** A system to identify/correct unsafe conditions and acts related to their contract.
- **c.** A system to identify unsafe conditions and acts caused by elements out of their control.
- **d.** A system to report accidents, injuries and illnesses occurring on the project or job.
 - **e.** A system to investigate accidents and provide reports.
 - **f.** A written site-specific plan for implementing above which includes:

(1) Hazard analysis of significant hazards in the specific contract and plan for controlling same.

- (2) Designation of contractor QC qualified personnel primarily responsible for SOH at the project.
- (3) Description of how the contractor QC safety duties will be performed, including a pre-work review of activity, safety training for the workforce, frequent and regular checks for compliance with safety requirements, daily records of safety performance, items and areas checked, results, instructions, corrective actions.
 - **(4)** On-site inspection of subcontractors by prime contractor.

4-4. USP&FO-NY and Safety and Occupational Health Office Responsibilities.

- **a.** The NYARNG SOH Office professionals shall be trained in contracting principles and safety requirements including courses required in DA Pamphlet 385-10.
- **b.** The SOH Office shall ensure all accidents, injuries and illnesses occurring on the project are reported to the commander IAW contractual procedures.
- **c.** The NYARNG SOH Office shall ensure that Safety and Occupational Health experts assist CORs with monitoring contract Safety and Occupational Health compliance.
- **d.** USP&FO-NY Purchasing and Contracting Office (MNPF-PC) will ensure the development of Performance Work Statements (PWS) and Statement of Work (SOW) outline contractor safety requirements and responsibilities. Requirements are based on risk assessment of the work to be performed and NYARNG unique requirements. MNPF-PC will ensure all PWS and SOW for services will be reviewed by the NYARNG SOH Office.

CHAPTER 5

EXPLOSIVE AND SAFETY MANAGEMENT

- **5-1. Policy.** Specific policy and guidance related to programmatic responsibilities and procedural requirements for routine operations of ammunition and explosive safety are contained in AR 385-10, DA Pamphlet 385-30, DA Pamphlet 385-64, DA Pamphlet 385-65. These regulations implement the Army Ammunition and Explosive (AE) Safety Program.
- **5-2. Applicability.** This pamphlet and the NYARNG Pamphlet 385-64 Ammunition and Explosive Safety Management Program (ESMP) applies to all units of the NYARNG, those assigned, attached, operationally-controlled or contracted with by the NYARNG, their guests and any tenant activity (including other military units, civil authorities, and contractors) that store and/or uses Ammunition and Explosives (A&E). Safety directors of organizations with an A&E mission shall apply all aspects of AR 385-10, paragraph 5-4(b).

5-3. Explosive Safety Management Program (ESMP).

- **a. Purpose.** This policy coincides with NYARNG Pamphlet 385-64 and complies with the requirements set forth in AR 385-10 and DA Pamphlet 85-64.
- **b. References.** All A&E operations will be conducted in compliance with applicable Department of Defense (DoD), Army, National Guard Bureau (NGB), and Occupational Safety and Health Administration (OSHA) standards.

c. General:

- (1) General Principle: Ammunition & Explosives (A&E) activities will be guided by the cardinal principle: Expose the minimum number of people to the minimum quantity of A&E for the minimum amount of time.
- **(2)** All organizations on NY National Guard managed installations with an A&E mission shall follow the procedures outlined in this document and NYARNG Pamphlet 385-64.
- (3) The NYARNG SOHM and staff have direct access to The Adjutant General and other organizational commanders for all explosive safety matters.

(4) The Regional ARNG Quality Assurance Specialist Ammunition Surveillance (QASAS) will be an integral component of the ESMP and will provide technical assistance to the NYARNG) SOH Office.

d. NYARNG Command Safety Council: The Explosive Safety Council will be combined with the NYARNG Command Safety Council will meet quarterly. During the council the appointed Explosive Safety Manager (ESM) will brief TAG/AAG on the organization's ESMP posture and any A&E safety issues.

e. Responsibility:

- (1) The Adjutant General (TAG)/Assistant Adjutant General (AAG). The TAG/AAG:
- (a) Will appoint the Explosive Safety Manager (ESM) to manage the States Explosive Safety Management Program (ESMP).
- **(b)** Shall delegate to a signature authority to approve all Explosive Site Limits and Licenses.
- **(c)** Is overall responsible for the implementation of all parts of the ESMP that apply to the NYARNG.
 - (2) NYARNG SOH Office. The NYARNG SOH Office will:
 - (a) Have the ESM, as part of the staff, managing the ESMP.
 - **(b)** Certify and review Explosive Site Limits and License annually.
- **(c)** Participate in site planning of new explosive facilities and for constructing any facility within the explosives arc of an existing explosives facility.
- (d) Ensure all job series 0018 personnel complete USADAC courses AMMO-107, AMMO-45, AMMO-63, and AMMO-78.
- **(e)** Ensure CP-12 personnel in positions with explosives safety roles and responsibilities complete training in advanced explosives safety management and safety for tactical environments.

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(f) Ensure safety personnel managing explosives safety programs and/or executing technical duties receive proper training as specified in CP-12 training requirements and Figure 1-1 of DA Pamphlet 385-64.

- **(g)** Ensure Army leaders of organizations with A&E missions and functions remain cognizant of the NYARNG ESMP posture.
 - (3) Explosive Safety Manager. The Explosive Safety Manager (ESM) will:
- (a) Manage and be the primary point of contact for all explosive safety issues.
- **(b)** Review and sign Explosive Site Limits and Licenses when the units request a site license.
- **(c)** Participate in site planning of new explosive facilities and for constructing any facility within the explosives arc of an existing explosives facility.
 - (d) Participate in the annual vault inspections and review.
- **(e)** Ensure ESMP, Certificate of Risk (Co RA) and Certificate of Compelling Reasons (CCR) documentation are properly executed and maintained IAW DA Pamphlet 385-30 and DA Pamphlet 385-64.
- **(4)** The Regional ARNG Quality Assurance Specialist Ammunition Surveillance. Quality Assurance Specialist Ammunition Surveillance (QASAS) will:
 - (a) Provide assistance and be the subject matter expert of explosive safety.
 - **(b)** Be an adviser of the ESMP for units and range operations.
- **(5)** Director or Facilities Engineering (DFE) Office. The Director of Facilities Engineering Officer will:
 - (a) Appoint an individual to conduct vault Construction Statements.
- **(b)** Establish a vault inspection checklist, which ensures the structure may hold specific class of A&E.
- **(c)** Review annually, maps showing all explosives areas or locations including the Inhabited Building Quantity Distance (QD) Arcs.

(d) Notify local fire departments of any construction work which may affect the response of emergency vehicles.

- **(6)** Commanders and supervisors of all units and organizations in NYARNG will comply with the NYARNG written ESMP found in the NYARNG Pamphlet 385-64.
- **5-4. Organization and Staffing.** TAG/AAG will ensure that the NYARNG SOH Office will be staffed appropriately to manage the state ESMP. Units and organizations without adequate explosives safety staff may request technical assistance from NYARNG SOH Explosives Safety Manager. The NYARNG SOH Office will work closely with the designated regional ARNG Quality Assurance Specialist Ammunition Surveillance QASAS) whenever deemed necessary.

5-5. Contractors.

- **a.** All contracts involving A&E will include DFARS, clause 22.370. Clause 223.370 requires the use of DOD contract safety manual and safety oversight. Also, this clause cannot be removed without authorization of NYARNG SOHM. The requiring activity will review all contracts for other safety requirements.
- **b.** Besides the DFARS clause, all A&E contracts on any facility will stipulate compliance with A&E safety requirements, accident reporting provisions and develop an ESMP as required by AR 385-10 and DA Pamphlet 385-64.
- **c.** For operations monitored by DCMA, the DCMA safety representative will coordinate issues with the NYARNG SOH Office.

5-6. Master Planning.

- a. NYARNG SOH Office.
- (1) Coordinate with facilities and engineering Master Planning in the event any future construction plans for A&E require any Explosives Safety Site Plans (ESSPs).
- (2) Actively participate in the master planning process, and annually review the master plan to ensure construction is not planned inside Explosives Safety Quantity Distance (ESQD) arcs.
- (3) When construction that is not related to A&E operations is required within an ESQD arc, ensure ESSPs, submissions and explosives licenses are updated and approved at the appropriate level.

- **b.** The SOHM with the regional ARNG QASAS will assist in the master planning process, and will review annually, the master plan to ensure construction is not planned within ESQD arcs.
- **c.** Facility Maintenance and unit/organization (with or without an A&E mission) will review the master plan as part of any construction project to verify that the planned construction is not within the ESQD of any Potential Explosives Site (PES).
- **d.** Real Property Master Planning is a continual, collaborative, and integrated process, primarily performed at the state level, reflective of mission requirements. In order to maintain this process it is imperative that all NYARNG units/organizations utilize the systems specified in NYARNG SOPs when requesting changes or additions to the real property. NYARNG ESM will participate in the Facility Management Office Project Status Review (PSR) and Project Review Board (PRB) to ensure that all new construction is properly sited according to explosive safety standards.
- **e.** Any real property known or suspected to contain Munitions and Explosives of Concern (MEC), Unexploded Ordnance (UXO), or Chemical Warfare Material (CWM) will be treated and handled according to DA Pamphlet 385-30.
- **f.** The Director Facilities Engineering Office will review annually (and document the review) the NYARNG explosives location map to monitor encroachment within ESQD and ensure required explosives safety site plans, submission and explosives licenses are accomplished. The NYARNG ESM will monitor the overall NYARNG explosives map and address any conflicts and/or deviations required to maintain the master plan.

5-7. Site Planning and Explosives License.

- **a.** NYARNG Ranges have no permanent/fixed structure that contains ammunition therefore, the ranges do not require an Explosive Safety Site Plan outlined in DA Pamphlet 385-64 and DA Pamphlet 385-65. Ammunition is present temporarily only for distribution to troops, crews, or vehicles in training
- **b.** All temporary A&E holding structures (i.e., connex) and arms room vaults in the NYARNG must have an explosives license as required by DA Pamphlet 385-64. Each unit and organization who store ammo temporarily in their arms room will complete an explosives license request to NYARNG SOH Office. NYARNG SOH Office will review,

certify and maintain a copy of the explosives license. Each unit and organization must maintain the original copy of the license and the NYARNG ESM will review annually and document on a memorandum stating verification of review. Technical issues will be addressed by the regional ARNG QASAS with affected units and organization's ESM.

- **5-8. HERO Abatement.** At the time of this publication, the NYARNG has very little Hazards of Electromagnetic Radiation to Ordnance (HERO) concerns with regards to its military munitions. The following criteria shall be adhered to whenever applicable:
- **a.** During acquisition, HERO evaluation and certification of military munitions shall be completed for routine mission profiles and anticipated Joint or combined operational missions.
- **b.** HERO certification shall be done when legacy military munitions are redesigned or before military munitions are employed in an electromagnetic environment for which they were not previously HERO certified.
- **c.** All data from HERO evaluations shall be compiled in the central data repository to support the Joint Spectrum Center Ordnance Electromagnetic Environment Effects Risk Assessment Database.
- **d.** Commanders shall take measures to ensure that HERO effects on military munitions are solved during planning of operations/exercises.
- **e.** All areas where the levels of R/F electromagnetic fields constitute a radiation hazard to military munitions or flammable materials shall be clearly marked with signage.
- **f.** Prior to using R/F equipment within a military munitions facility or to identify and track military munitions, the emission levels shall be determined safe by qualified personnel.
- **5-9. Accident Prevention Program.** All units and organizations with an A&E mission in NYARNG will have explosive safety as an integral part of their accident prevention plan. This accident prevention plan will be tailored to their operation which addresses the requirements stated in the AR 385-10 table 1-1 and DA Pamphlet 385-64 as a minimum. A copy of the accident prevention plan will be provided to the NYARNG SOH Office.

5-10. Emergency Response.

a. In order to respond effectively to an emergency at an A&E storage facility the contents of the facility must be known to emergency responders. In particular the

responding fire department, since under the National Incident Management System they provide on-scene incident command. Therefore, the following actions will be taken as indicated.

- b. Organization having the A&E mission will:
- (1) Post applicable fire and chemical symbols on all A&E storage facilities unless exempted IAW DA Pamphlet 385-64.
- (2) Provide NYARNG SOH Office and the local fire department with a list of explosives being worked, and notify the fire department immediately of any changes to the list which would require a change of fire or chemical hazard symbols.
- (3) Obtain a Hot Work Permit per DA Pamphlet 385-64, paragraph 6-8 for any hot work being performed.
- (4) Each units/organizations will check the Munitions History Program, located at https://mhp.redstone.army.mil. monthly to ensure all assets that are stored or installed are not suspended, restricted, and, if applicable, ensure shelf/service life is adequate.
- **c.** Local fire marshal will conduct fire prevention inspections in A&E facilities and have the authority to inspect any facility at any time in NYARNG. All units/ organizations with an A&E mission will maintain the proper fire and chemical hazard symbols of explosives present within the facility. In addition, NYARNG Safety and the local fire department will be notified when those hazards change. In the event of an explosives accident, the local fire chief will be the incident commander in charge of the emergency response until the scene is declared safe.
- **d.** The incident commander will then turn-over the scene to NYARNG. The unit safety officer and NYARNG SOH Office will control the site after completion of the emergency response actions. The scene will be secured by NYARNG security force until TAG releases the accident scene.
- **e.** Insert provisions for complying with the Emergency Planning Community, Rightto-Know Act (EPCRA), Section 302-312 and DoD or DA implementing policies. (DA Pamphlet 385-64 paragraph 6-20d).
- **f.** Each organization with A&E missions in NYARNG will develop Emergency Action Plan (EAP) and will practice their plan at least annually. There will be an annual NYARNG wide emergency drill specific to an A&E accident or incident.

g. Any release of information to the public will be made by TAG's Public Affairs Office (MNPA) only.

h. Army Accident Investigation team will be coordinated through NYARNG SOH Office. All Class A and Class B Army explosive accidents will be led by a board from US Army Safety Center, United States Army Technical Center for Explosives Safety (USATCES), or NGB.

5-11. Inspections, Evaluations and Audits.

- **a.** All organizations with an A&E mission shall conduct an annual review of the NYARNG ESMP to ensure compliance. The review shall be conducted by competent personnel and shall be documented in writing.
- **b.** In addition to the annual evaluations noted above, the responsible supervisor shall conduct and document spot inspections during actual A&E operations to verify compliance on an ongoing basis.
- **c.** All unit and organizations will conduct and document periodic internal (at least annually) inspections and or audits of A&E activities to ensure compliance with DoD and Army A&E policies.
- **d.** The NYARNG ESM or other assigned safety personnel will document final A&E facilities acceptance inspections following construction, renovation, or modification of facilities prior to commencing any explosives operation.
- **e.** The results of external inspections, evaluations, audits, and surveillance efforts will be incorporated into action plans, lessons learned and will be tracked to remediate inspection deficiencies.
- **f.** Inspection records will be made available for review by contacting the NYARNG SOH Office.

5-12. Explosive Safety Issuances.

a. Periodically, clarifications and amendments to policy are disseminated by various A&E proponent agencies. These can take the form of interim guidance in memo format from the, rapid action revisions which do not change the promulgation date, and other sources such as the USATCES Explosives Safety Bulletin.

- **b.** When a conflict exists between any explosives safety issuance associated with the applicable AR or DA Pamphlet, the safety issuance shall be followed.
- **c.** Explosives safety issuances consists of, but may not be limited to, local policies (SOPs), Army Regulations (ARs), pamphlets, and other publications.
- **d.** All units and organizations in NYARNG will have SOPs which include A&E safety management. All units and organizations with A&E operations will review SOPs on a bi-annual basis except for demilitarization SOPs which will be reviewed annually. Recommended format to be used during the development of an SOP is detailed in AMC-R 700-107. The originating unit and organization will obtain appropriate professional safety support for review and concurrence of hazard analysis and SOPs.
- **e.** All NG or activity policies will comply with Army and DoD requirements and will be reviewed by explosives safety personnel prior to approval.
- **f.** Any compensatory measures to manage risk will be documented and controls in place to ensure compliance.
- **g.** All NYARNG or activity facilities will be aware of and take precautions with any Hazards of Electromagnetic Radiation to Ordnance (HERO) unsafe munitions in NYARNG. If a HERO unsafe munitions is located in NYARNG or if a munitions will be rendered HERO unsafe, the NYARNG SOH Office and regional ARNG QASAS will be notified.

5-13. Records Management.

- **a.** AR 385-10 and DA Pamphlet 385-64 require the retention of various records. All compliance-related records (explosive license, 12-month revalidation of licenses etc.) will be retained by both the units/organizations having A&E missions, who is operating the PES, as well as the NYARNG SOH Office.
 - **b.** Specific office retention is addressed in these references and in AR 25-400-2.
- **c.** Each unit and organization will maintain records as required by Army regulations. records will be made available for review during NYARNG SOH Office and higher headquarters program evaluations.
- **d.** Inspection records for the past six inspections cycles will be maintained by the unit/organization.

e. Inventory records will be maintained and managed to control Net Explosive Weight (NEW), Hazard Division (HD), and compatibility requirements per site plans and licensing.

5-14. Training.

- **a.** It is essential that only trained and qualified personnel handle A&E. In order to ensure that all personnel are properly qualified, each unit/organization will establish a certification program.
- **b.** The certifying official is the commander or may be delegated to the deputy commander.
- **c.** The certifying official will base certification upon successful completion of required training, satisfactory job performance, and recommendation by direct leadership.
- **d.** Military Occupation Specialties (MOS) qualified National Guard Soldiers working within the scope of their MOS do not require certification. All others must be certified by the certifying official in order to perform A&E duties.
- **e.** Non-certified personnel may only perform A&E duties as part of their on-the-job training and when directly supervised by persons qualified in the tasks being performed.
 - f. Required Training. See DA Pamphlet 385-64 and ACR 350 for required training.
 - **g.** Responsibilities:
- (1) The certifying official will base certification upon successful completion of required training and satisfaction of job performance.
- **(2)** The certifying official will review submitted A&E Handler Certification packets annually.
 - (3) Supervisors and employees working in ammunition operations will:
- (a) Send required training certificates or sign-in sheets to their certifying official.
- **(b)** Review local range maps, SOPs and range deviation waivers in order to brief Soldiers on range awareness and safety. Review risks assessments and maintain in unit files.

- **(c)** Carry certification card, to the extent possible, while involved in ammunition operations.
- (d) Retain NYARNG Command Safety Council minutes, current biennial review and current semi-annual reviews.
- **h.** Certification Program Purpose. The purpose is to provide minimum requirements for the certification of NYARNG personnel responsible for duties that involve ammunition and explosive operations performed on NYNG facilities.
- i. All unit and organization commanders or directors will ensure all personnel who are involved in A&E operations, receive explosives safety training as required by Army policy and standards, including explosives risk management training for those responsible for the development and review of deviations and risk assessments. The minimum requirements for training are delineated in Figure 1-1 of DA Pamphlet 385-64. Units and organizations will maintain training records.
- **j.** Commanders or range control officers/safety officers will provide explosives safety training on the 3R's (Recognize, Retreat, Report) and UXO identification.

5-15. Arms Room Explosive Storage Site Licensing Program.

a. Purpose:

- (1) This guide is established to aid commanders in requesting a local explosives storage site licenses for their arms rooms to store "Limited Quantities" of ammunition to support operational missions. Operational missions are defined as missions associated with war or peacetime operations in which the consequences of an action justify the risk of loss of equipment and personnel. The qualifier "Operational Necessity" is intended to provide commanders the flexibility to ensure mission performance without a waste of resources. It does not allow such storage for convenience. The storage of commercial (off-the-shelf) ammunition is not considered an operational necessity. However, a limited quantity of Hazard Class and Division (HCD) 1.3 (105mm blank) and HCD 1.4 (blank rifle) may be stored in an arms room for a specific amount of time when a unit has funeral or salute battery detail.
- (2) Commanders are authorized to store only HCD 1.3 and 1.4 items. All ceremonial ammunition (HCD 1.3 and 1.4) stored will not exceed 100 pounds Net Explosive Weight (NEW) or one full outer pack of ammunition. The only exception to this outer pack rule is for 105mm blanks. Twenty-one 105mm blanks may be stored to meet the requirements of a funeral honors detail if listed on the facilities Site License.

(3) Units/organizations requesting the storage of A&E other than those mentioned above must contact the NYARNG SOH Office for requirements. All explosives storage must conform to Department of Defense (DOD) and Army standards for explosives safety.

- **b.** Scope. This SOP applies to all units assigned/attached to NYNG.
- **c.** Policy. It is the policy of the Department of the Army and NYNG to:
- (1) Provide the maximum possible protection to personnel and property from the dangerous effects of accidents involving A&E.
- (2) Limit exposure to a minimum number of persons for minimum amount of time to the minimum quantity of A&E consistent with safe and efficient operations.
 - (3) Comply with DOD and Army A&E safety standards.
- **d.** Explosives licenses are required for all facilities that store A&E per AR 385-10, paragraph 5-7.
- **e.** All A&E storage facilities will comply with the applicable DOD, Army, and OSHA standards.
- **f.** Facilities that do not meet A&E safety standards shall not be licensed unless a waiver, exemption, or Certificate of Compelling Reason (CCR) is on file with both the unit/organization having the A&E mission and the NYARNG SOH Office.
- **g.** No A&E will be stored at any location which does not have a valid current explosives license. Procedures for obtaining an initial license and for 12-month validation of that license are contained NYARNG Regulation 385-64.
- **h.** Each facility will identify an individual to be appointed as an ESM under the direction and guidance of the NYARNG SOH Office.
 - i. Storage Configuration.
- (1) All small arms ammunition stored in unit/ organization areas must be stored in the unit and organization arms room vault. The ammunition must be stored in its original container and packaging configuration. However, arms rooms that support security forces or police (military, civilian, and contractor) may have one outer pack of each caliber of small arms ammunition open for use. In addition, ammunition must be stored in some type of locked metal cabinet or container to allow for additional security and separation

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of material. The quantity of ammunition stored must not exceed the approved amount that will be authorized on the Explosive License (NGB Form 385-64-2). A copy of the original DA Form 581 (Issue Document) or Hand Receipt shall be available at the storage site.

(2) There could be an occasion when blank ammunition will have to be stored with ball ammunition of the same caliber. When this occurs, it may be stored in the same vault but the blank, ball and security ammunition will be kept separate from each other and one of the following signs designating the difference must be posted on the stack that it applies to.

SECURITY BALL AMMUNITION

BLANK AMMUNITION

BALL AMMUNITION

CEREMONIAL BLANK AMMUNITION

- j. What needs to be posted?
 - (1) DD Form 2977 (Deliberate Risk Assessment Worksheet) outside of the vault.
 - (2) NGB Form 385-64-2 (Explosive Site Limits and Licensing) outside of the vault.
 - (3) "NO SMOKING" signs inside and outside of the vault.
- **(4)** A Fire Symbol 3 (for salute rounds) or 4 (security ammunition) sign on the outside of the vault door and on the container that the ammunition is stored in. When ammunition is no longer being stored remove the fire symbol from the door.
- (5) In addition to the posting two (2) 10BC or greater Multi-Purpose, Dry-Chemical Fire Extinguisher will be mounted inside or close to the arms room vault.
- **k.** Request for license renewals. The unit and organization commander and supervisor should request a new storage license when they wish to change the amount or type of munitions stored. The procedures for requesting a renewal license are the same as the initial request.

5-16. Demilitarization and Destruction.

a. No demilitarization and destruction shall be conducted without an approved SOP which must be reviewed annually.

b. All Unexploded Ordinance (UXO) found in NYNG areas will be reported to range control and will be handled IAW established range control procedures. Personnel discovering UXO should follow the "Recognize, Retreat, and Report" approach.

- **c.** Unless emergency disposition is required, resource recovery and recycling efforts will be the primary means of disposing of unwanted A&E materials.
- **d.** The burying or dumping of ammunition, explosives, or propellants is not an approved method of disposal.

5-17. Risk Management.

- a. The principles of risk management will be applied to all A&E operations.
- **b.** In the event that explosives safety standards cannot be met, a Certificate of Risk Acceptance (CORA) (DA Form 7632) shall be executed compliant with DA Pamphlet 385-64 and DA Pamphlet 385-30.
- **c.** Non-compliant new construction will only be approved after completing the CCR process outlined in DA Pamphlet 385-30.
- **d.** All A&E mishaps and misfires shall be reported, investigated, and analyzed IAW AR 385-10, DA Pamphlet 385-64, and DA Pamphlet 385-40.

5-18. Electrical Hazards and Protection.

- **a.** The installation and use of all electrical systems and equipment shall comply with DA Pamphlet 385-64, Chapter 17 and NFPA 780.
- **b.** Only qualified personnel authorized to do such work will perform maintenance where equipment may have been contaminated by explosives, the explosives will be removed or neutralized before maintenance is started.
- **c.** Static electricity charge dissipation sub-systems shall be visually inspected and tested IAW DA Pamphlet 385-64, paragraph 17-10 and related appendices.
- **d.** Ordnance and instrument grounds shall comply with DA Pamphlet 385-64, paragraph 17-11 and 17-12.

- **e.** Explosives facilities will be provided with a ground system to provide personnel, equipment, and facility protection. Personnel safety is provided by low impedance grounding and bonding for personnel, equipment, metallic objects, and piping so as to prevent voltages sufficient to cause a shock hazard or initiate explosives within the facility.
- **f.** Visual inspections and testing of all electrical protection systems must be done by qualified personnel. Test frequency and criteria are contained in the various sections of DA Pamphlet 385-64, Chapter 17, and summarized in table 17-1.
- **g.** The organization with the A&E mission is responsible for ensuring that all required visual and electrical testing is current.
- **h.** Certified Electrical Facilities Maintenance personnel or certified contractor will be responsible for conducting no more than 18 month tests of the lightning protection systems on explosives storage sites.
- **i.** A Record of these inspections and tests must be kept by the unit/organization having the A&E mission (i.e., the unit/organization using the facility). It is the responsibility of the unit/organization with the A&E mission to provide a copy of the electrical testing to the NYARNG SOH Office.
- **j.** Since grounding systems are intrinsic to the facility and remain even though the facility occupant may change, the NYARNG SOH Office will maintain the inspection and test reports and/or records for the last six inspection cycles (12 years for records on a 24-month interval cycle). These records shall be reviewed for trend analysis.
- **5-19.** Range Safety will be managed IAW DA Pamphlet 385-64 and NYARNG Range Safety Management SOPs.
- **5-20. The A&E amnesty program** will meet the requirements of DA Pamphlet 710-2-1, paragraph 11-19.
- **5-21. Routine Facility Maintenance will** be conducted IAW applicable regulations and technical manual for buildings and equipment used in A&E operations.

CHAPTER 6

PUBLIC FAMILY, CHILD AND YOUTH, OFF-DUTY RECREACTION AND SEASONAL SAFETY

- **6-1. Introduction.** Public, Family, child and youth, and off-duty recreation safety are essential to the overall Safety program of the NYARNG. While the NYARNG does not have the same access and/or control over Family, child and youth and off-duty recreational activities of their active component counterparts, the safety of Family is still important.
- **6-2. Policy.** The NYARNG SOH Office will publish safety tips and promotional programs appropriate to the season as well as general safety information suitable for off-duty/Family activities. When units plan unit Family Day gatherings, RM shall be conducted to ensure appropriate countermeasures are applied. RM will also be conducted to Soldiers leave, pass, TDY or PCS travel plan procedures when driving outside of local areas as determined by the commander.
- **6-3. Responsibilities.** The NYARNG SOH Office will submit safety requirements to installation safety for approval and dissemination in regards to the hazards associated with sporting and recreation events. The NYARNG SOH Office shall administer promotional programs and procedures to increase awareness of specific hazards associated with the change of the seasons and celebration of holidays. The NYARNG SOH Office shall ensure commanders establish, resource and operate a Safety Program for water related activities including water operations and water recreational activities.

CHAPTER 7

RADIATION SAFETY MANAGEMENT

7-1. General.

a. Purpose. To establish radiation safety policies and procedures necessary to ensure exposure of personnel to radiation are maintained As Low As is Reasonably Achievable (ALARA); to ensure the safe use and storage of radioactive materials; and ensure potential hazards associated with LASER and Radio-frequency (RF) radiation systems are IAW all applicable guidelines. This pamphlet does not delete any radiation safety requirements not specifically addressed in this pamphlet that may be applicable to the NYARNG. The NYARNG will comply with DA Pamphlet 385-24, DA Pamphlet 385-25, AR 385-10 and NGR 385-24 as they apply to all sources of ionizing and nonionizing radiation. The NYARNG's Radiation Safety Policy reflects the requirements of the afore-mentioned regulations and incorporates the key radiation safety requirements identified in AR 385-10.

b. Scope.

- (1) This pamphlet provides implementing instructions for the Radiation Safety Program (RSP). It is applicable to all NYARNG installations, commands, troops, employees, technicians and visitors to NYARNG units and installations that come into an environment influenced by both ionizing and non-ionizing radiation in possession of the NYARNG.
- (2) This pamphlet will be further supplemented by unit Standing Operating Procedures (SOP) to prescribe minimum standards necessary to keep radiation exposure from radiation producing devices to personnel at levels that are ALARA.
- (3) Units possessing Individually Controlled Radioactive Items (ICRI) will maintain an SOP(s) for the safe handling and storage of radioactive devices.
- **(4)** Combined Support Maintenance Shop will maintain an SOP(s) for the safe handling, maintenance, demilitarization (DEMIL), and storage of radioactive devices.
- (5) The U.S. Property and Fiscal Office (USP&FO) Warehouse will maintain an SOP(s) for the receipt, storage, and shipment of radioactive materials.

c. Objectives. This pamphlet supplements DA Pamphlet 385-24 and establishes policies, procedures and responsibilities for managing the NYARNG RSP. The objectives are:

- (1) To prescribe procedures for storage of radioactive material and prevention of radiological contamination and or overexposures.
- (2) To ensure compliance with pertinent regulations and directives of the Nuclear Regulatory Commission (NRC), Department of the Army Radiation Authorizations (ARA), and the provisions of applicable sections of federal regulations.

d. Definitions:

- (1) Calibration Source: Radiation source of known activity for calibration of RADIAC instruments.
- **(2) Radiation:** Electromagnetic radiation (gamma or x-ray) or particulate radiation (alpha, beta, and neutrons) capable of producing ionization.
- (3) Radiation Area: Any area, accessible to personnel in which there exists radiation at such levels that a major portion of the body could receive in any one hour a dose in excess of five millirem (5 mrem) or in any five consecutive days a dose in excess of one hundred (100) mrem.
- (4) Restricted Area: Any area in which access is controlled for purposes of protection of individuals from exposure to radiation and radioactive materials.
- **(5) Sealed Source:** A source in which the radioactive material is contained in a manner intended to prevent leakage.
- **(6) Personnel Monitoring Equipment:** Devices worn or carried by an individual for the purpose of measuring the dose of radiation to which he/she is exposed (e.g., Thermo Luminescent Dosimeters (TLD), pocket dosimeters, etc.)
- (7) Radiological Survey: An evaluation of the radiation hazards incident to the use, maintenance, release, disposal or presence of radioactive materials. Such evaluations include a physical survey of the location of the materials and/or equipment;

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the measurements of the levels of radiation present (i.e., the dose-rate) and non-fixed contamination present (i.e., wipe test). All radiological surveys must be documented and retained on file for at least 5 years.

- (8) State Radiation Safety Officer (SRSO) and Alternates (ASRSO): Qualified individuals appointed by The Adjutant General of the State of NY or subordinate commanders to provide consultation and advice on the degree of hazards associated with ionizing/non-ionizing radiation and the effectiveness of measures to control these hazards. These individuals must be technically qualified by virtue of education, training and/or professional experience to assure a capability commensurate with the assignment IAW DA Pamphlet 385-24.
- **(9) Device(s):** As used with this pamphlet, refers to any instrument, tool, test set, weapon or other article that contains a radiation source.
- (10) Licensee: The agency licensed by the U.S. Nuclear Regulatory Commission (NRC) to procure, issue, and use radioactive commodities. Examples are: U.S. Army Communications-Electronics Command (CECOM), The Army Contracting Command Life Cycle Management Command (TACOM LCMC), etc. State Radiation Safety Officer (SRSO): The qualified person designated on orders by The Adjutant General (TAG) or appropriate staff directorate to administer the RSP.
- (11) Local Radiation Safety Officer (LRSO): A qualified officer or enlisted person from a facility, brigade or battalion appointed as local radiation Safety officer for; a radiation device, such as the AN/UDM-2 RADIAC Calibrator Set; the Density Moisture Tester, Model 3440 Plus used by the Engineers; personnel responsible for safe storage and shipment of radioactive material at the DOL and USP&FO Warehouses; and other facilities that maintain, service or store equipment containing radioactive sources.
- (12) Alternate Local Radiation Safety Officer (ALRSO): An officer or enlisted person that is qualified to perform all of the duties of the LRSO in his or her absence.
- (13) Individually Controlled Radioactive Items (ICRI): Items that are designated as such and must be controlled to the extent their location is known by the licensee or designated Radiation Safety Staff Officer (RSSO) at all times. ICRIs utilized by the NYARNG are the AN/UDM-2 RADIAC Calibrator and the Density Moisture Tester, Model 3440 Plus.

(14) Unit Radiation Safety Officer (URSO): A qualified officer or enlisted person from a unit or activity appointed as Radiation Safety Officer for units that possess TACOM LCMC licensed radioactive commodities (i.e., tritium Fire Control Devices (FCD); the CAM; the ICAM; the ACADA and M43A1s).

7-2. Responsibilities.

- a. Major Commands:
- (1) U.S. Army Communications-Electronics Command (CECOM), the CECOM Directorate for Safety (DS) is designated as the RSSO for the National Guard Bureau (NGB).
- (2) The NGB RSSO provides training and guidance for the requisition, receipt, handling, storage, disposal and transportation of ionizing and non-ionizing radiation emitting products; the NGB RSSO also performs audits of the state RSP.
 - **b**. The Adjutant General (TAG) of NY will:
 - (1) Assume responsibility for compliance with the NYARNG RSP.
- (2) Ensure that adequate resources are available for maintaining and monitoring the RSP.
 - (3) Appoint in writing a Radiation Safety Officer.
- **c.** The State Surgeon will provide medical advice, guidance and assistance on health hazards connected with radiological exposure.
- **d.** State Radiation Safety Officer and Alternates. The NYARNG State RSO's are charged with the overall responsibility for the NYARNG RSP. Responsibilities will include but not limited to the following:
 - (1) Act as special staff officer to TAG of NY for all facets of radiological safety.
- (2) Supervise the requisition, receipt, storage, and disposal of all radioactive material coming under the jurisdiction of TAG of NY.
- (3) Ensure that records are maintained for each individually controlled item on hand.

- **(4)** Advise appropriate radioactive material control point (RMCP), or item manager, of forthcoming changes in accountability, local RSO/Alternate RSO changes, or installation relocation of an ICRI.
- **(5)** Report to the RSSO, or item manager, by fastest means available of theft, loss of control, destruction, leakage, or damage of individually controlled items and over exposures to radiation.
- **(6)** Establish Radiological control areas where the use and/or storage of radioactive material require control of access to the area for the purpose of radiological safety.
- (7) Establish written policies and procedures to ensure compliance with applicable Federal, DoD, and Army Radiation Safety regulations and directives.
- (8) Ensure that radiological-warning signs are posted as required in Title 10 part 20 Code of Federal Regulations and DA Pamphlet 385-24.
- (9) Ensure that procedures require controlled items to be stored in a fire resistant building and that no explosives or flammables of any kind are stored in the same cabinet or area.
- (10) Ensure that Thermo-luminescent Dosimeters (TLD) and Pocket Dosimeters are available, issued, controlled, and worn when required. TLD exposures will be recorded IAW DA Pamphlet 385-25.
- (11) Ensure that wipe tests and leak tests are performed IAW DA Pamphlet 385-24 and NRC license requirements.
 - (12) Ensure that radioactive items are secured against unauthorized use or removal.
- (13) Initiate actions to ensure that Army and Federal Regulations are being followed and that personnel exposure is kept as low as is reasonably achievable (ALARA).
- (14) Immediately refer an actual or suspected radiation overexposure to a medical officer as stated in DA Pamphlet 385-24.

(15) Ensure that a physical inventory of all radioactive material is performed annually or more often if required by a NRC license, Army Radiation permits, Army Radiation authorizations, and by technical publications.

- (16) Provide guidance and review any procedures establishing working conditions and standard operating procedures to ensure compliance with current standards and pertinent regulations and directives and advise appropriate commanders and supervisors of unsafe practices and the corrective action(s) required. Provide training to new personnel in safe work practices, emergency procedures and harmful effects of radiation overexposure.
- (17) Monitor and/or inspect operations involving radioactive materials to ensure compliance with the radiation safety program.
- (18) Ensure that required radiological surveys are conducted for installations and activities possessing controlled radioactive commodities.
 - (19) Assist with training, as required.
- (20) Cause all operations, schedules or programs to cease where health might be endangered due to radiation or radiological contamination and keep such activities suspended until hazardous conditions are corrected.
- (21) Ensure that all NYARNG units and activities authorized individually controlled radioactive items have qualified personnel assigned and appointed as LRSO prior to receipt of that equipment.
- (22) Ensure that all NYARNG units and activities authorized Chemical Detection Equipment (CDE, i.e., the CAM, ICAM, ACADA and M8A1) and/or tritium FCD have appointed, on orders, and trained an individual to serve as the unit RSO (URSO) for that equipment.
- **e.** The Alternate State Radiation Safety Officer (ASRSO) will assist the SRSO and perform sections 2-4a. through 2-4v. above in the absence of the SRSO.
 - f. Commanders of organizations and units utilizing laser/RF devices will:
 - (1) Ensure that personnel comply with applicable regulations and local SOPs.

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(2) Ensure that an approved SOP is conspicuously posted in each laser/RF facility utilizing potentially hazardous laser and/or RF radiation producing sources and systems (those which may produce levels of exposure in excess of established MPEs (class 3b or 4 for lasers) or PELs (for RF producing sources/systems)).

- (3) Ensure that appropriate personnel are included in a medical surveillance program.
- **(4)** Provide the SRSO (or LSO/RFSO) with an annual inventory of potentially Hazardous laser/RF systems.
- (5) Ensure that all laser/RF radiation workers attend periodic laser/RF safety briefings sponsored by the SRSO (or LSO/RFSO) or the local commander.
- **(6)** Ensure that their Laser Safety Program established a designated Laser Safety Officer (LSO) in writing when applicable.
- (7) Ensure that a Radiofrequency Radiation (RFR) Safety Program established and designated a Radiofrequency Safety officer (RFSO) in writing when applicable.

g. Immediate supervisors utilizing laser/RF devices will:

- (1) Post appropriate warning signs and notices as required.
- (2) Assure that personnel operating laser/RF devices receive adequate instructions and training in the use of operational and safety equipment, prior to the personnel working with these devices for the first time.
- (3) Maintain a roster of all personnel authorized to operate class 3b and class 4 lasers, and ensure that required personnel are on an ocular surveillance program. Pre-placement and termination eye examinations will be completed for personnel participating in laser operations.
- (4) Establish written SOPs which include safety rules and special precautions. Written SOPs shall be forwarded to the SRSO for review and approved by the commander or the staff official who has been delegated the responsibility.
 - (5) Enforce laser and RF SOPs, safety rules, and special precautions.

(6) Report any laser/RF accidents, unusual incidents, personnel injuries, and immediately seek medical treatment.

h. Laser and RF operating personnel will:

- (1) Know and adhere to SOPs, safety rules, and special instructions.
- **(2)** Assure that the operation of laser/RF equipment will not injure any personnel who may be present. Report to their supervisor any known or suspected accident or personnel injury.

i. Laser Range Safety Officer will:

- (1) Ensure that all personnel authorized to participate in the laser operation are thoroughly instructed regarding safety precautions to be followed.
 - (2) Implement SOPs to ensure:
 - (a) Established target areas and buffer zones are observed.
 - **(b)** Unauthorized personnel do not enter the target area.
- **(c)** Communication with personnel in the target area is maintained and that required protective eyewear is worn during the operation of the laser.
- (d) Immediate reporting of suspected overexposure of the eyes to laser radiation so that an eye examination can be performed.
 - j. Local Radiation Safety Officer (LRSO) and Alternate LRSO (ALRSO) will:
- (1) Ensure radioactive items under their control are properly used, stored, maintained, and transported.
- (2) Provide an updated Radiation Safety SOP as an annex to the unit or Activity Safety SOP.
- (3) Report all accidents and incidents involving radioactive material to the SRSO immediately and provide a follow-up of corrective action(s) and prevention procedures.
- **(4)** Conduct radiation surveys/tests and recommend corrective measures as appropriate.

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(5) Review and maintain applicable unit TLD records (i.e., unit ionizing radiation dosimetry program records).

- **(6)** Post Radioactive material storage areas IAW the Code of Federal Regulations, DA Pamphlet 385-24 and applicable TMs/TBs.
- (7) Provide a memorandum, to the local fire department, listing the location, isotope, activity and quantity of all radioactive material storage area(s) within their facility. In addition, a diagram of the storage area(s) will be provided, as an appendix, to show the location of the radioactive materials stored on-site.
- **k.** Unit Radiation Safety Officer (URSO) will be appointed by the unit or activity commander and will:
- (1) Ensure radioactive items under their control are properly used, stored, maintained, transported and turned in when no longer needed.
- (2) Provide an updated Radiation Safety SOP as an annex to the unit or Activity Safety SOP.
- (3) Report all accidents/incidents involving radioactive material under their control to the SRSO immediately and provide a follow-up of corrective action(s) and prevention procedures.

7-3. Control of Radioactive Material.

a. Procurement:

- (1) The USP&FO will coordinate all requisitions for ICRIs with the SRSO to Determine if properly trained personnel are available to receive shipment of ICRIs.
- (2) Procurement of radiological devices/instruments will be coordinated with the USP&FO. Instrumentation requirements needed to satisfy NRC requirements will be justified based on Army and NGB Policy.

b. Receipt of Radioactive Material:

(1) Serviceable and non-serviceable items of equipment containing radioactive material will be inspected for damage prior to being brought into the USP&FO.

(2) All non-serviceable items containing radioactive material should be placed in double plastic bags at the using unit prior to transport. Damaged or unserviceable items containing radioactive material will be double bagged prior to being introduced into the USP&FO Warehouse.

c. Transportation:

(1) Commercial Carrier: Radioactive commodities offered to a commercial carrier for transportation will be packaged, marked and prepared for shipment in accordance with 49 CFR 172 and 173.

(2) Military Vehicle:

- (a) Tactical Situations: Commodities may be transported in military vehicles. When commodities are transported by military vehicle in a tactical situation, the commodity should be in its "in use" configuration. That is, such things as fire control devices are mounted on the gun or in the design movement/storage position.
- **(b)** Non-Tactical Situations: When devices are transported in administrative situations, such as movement of devices from the warehouse to the using unit, the commodities should be shipped IAW TB 43-0137, Section III.

d. Storage:

- (1) Radioactive commodities will be stored in an area that is secure from unauthorized access. Serviceable commodities will be stored separately from unserviceable commodities.
- (2) Radioactive Commodities that are not an integral part of a weapon will not be stored in the weapons vault unless the vault is provided with proper ventilation.
- (3) Radioactive material will not be stored in the same areas as flammables or explosives.
- (4) Radioactive material storage areas will be posted with a sign, or signs, containing the words: "CAUTION-RADIOACTIVE MATERIAL." In addition, the following shall be posted near the storage area or where personnel going to and from the storage area may view them.
 - (a) The latest NRC Form 3 Notice to Employees.
 - (b) Section 206 of the Energy Reorganization Act.

- (c) No Smoking, Eating, Chewing or Applying Cosmetics Sign.
- (d) The NRC License for the commodities.
- (e) The SOP for Radiological Operations.
- (f) Parts 19, 20 and 21 of CFR Title 10.
- **(g)** Emergency Contact Sign to include the name and phone number of person or persons to contact in event of an accident or incident in the area.
- **(h)** Violations of License Conditions. Note: Items (4) through (6) and may be maintained in a central location and a notice placed at the storage area informing personnel where these documents may be viewed.

e. Radiological Surveys:

- (1) Radioactive material storage areas shall be surveyed at least quarterly. Areas requiring surveys include CSMS Maintenance Facilities that work with radioactive commodities; USP&FO Warehouse, MATES/UTES storage locations; and ICRI storage locations. The radiological survey will include a radiation survey and a contamination survey. All radiological surveys must be documented and retained on file for at least 5 years.
 - (2) In addition to the quarterly survey, surveys will be performed when:
- (a) A significant change of radioactive material emitting gamma or x-ray radiation is added to or removed from the storage area.
- **(b)** When the storage area contains a commodity that requires monthly radiation surveys (or another frequency determined by the NRC licensee), such as the AN/UDM-2 RADIAC Calibrator Set.
 - **(c)** When all material is removed and the storage area is to be closed out.
- (3) The radiological survey will include a contamination survey using the appropriate wipe material. If the storage area contains alpha, beta and gamma sources the NUCON wipe may be used, except for tritium and nickel-63 sources.

If tritium devices or commodities containing nickel-63 are stored in the area, nitrocellulose filters, such as Metricel or a paper Whatman filter will be used. For storage areas containing all types of sources, both types of wipes will be used (i.e., NUCON and Metricel/Whatman).

(4) Sufficient wipes will be taken to assess the surface contamination levels. These wipes will be sent to the ARNG RSSO Laboratory for analysis, using the Wipe Test Analysis Request Form provided by the ARNG RSSO (see Appendix B of this pamphlet).

f. Transfer of Individually Controlled Radioactive Items:

- (1) ICRIs listed in Appendix B in DA Pamphlet 385-24 will not be transferred until approval has been obtained from the SRSO and the Radioactive Material Control Point (RMCP) Item Manager.
- (2) Controlled items other than individually controlled items can be transferred without approval of the RMCP, when approved by the SRSO.

g. Inventory:

- (1) The SRSO with the assistance of USP&FO personnel will conduct a physical inventory of all radioactive materials listed on the property book at least once annually. The results of the inventory will be documented for the specific item of equipment or radioisotope(s) to include Nomenclature, isotope(s), activity, quantity and UIC.
- (2) Copies of Radioactive Material Inventory conducted by SRSO and USP&FO personnel will be forwarded to each unit for verification.
- (3) The inventory/verification of on-hand radioactive commodities within the NYARNG will be accomplished during annual health and safety workplace inspection conducted by the State RSO. When this is not possible the SRSO or ASRSO will coordinate validation.

h. Disposition of Unserviceable Radioactive Commodities.

- (1) When sufficient excess material is on hand to warrant a request for disposal, the LRSO will send a listing of items awaiting disposal to the SRSO. The SRSO will send an inventory of the material to the RSSO for the ARNG. This inventory list will include:
 - (a) NSN of the Commodity; Nomenclature of the Commodity;

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(b) Radionuclide, such as Ra-226, H-3, Th-232, etc.; Activity of the radionuclide in Bq; Total number of each commodity, and total activity.

(2) The RSSO will verify the list and forward the list to the U.S. Army Joint Munitions Command (USAJMC) for disposal instructions.

7-4. Ionizing Radiological Safety Procedures.

- **a.** The purposes of Radiological Safety Procedures are:
- (1) To reduce the amount of external/internal radiation exposure to personnel as low as is reasonable achievable (ALARA).
- **(2)** To reduce the possibility of internal radiation exposure by preventing ingestion, inhalation, or other modes of entry of radioactive materials into the body.
- (3) To prevent the spread of radioactive contamination. Basic Radiological Safety Rules.
- **(4)** Maintain cleanliness and good housekeeping in all radiation areas, especially where potential contamination may occur due to damage of the radioactive commodity.
- (5) No one shall handle radioactive material with an open cut or sore below the wrist without first having it inspected by the LRSO or having it covered.
- **(6)** There will be no eating, chewing, smoking, drinking, application of cosmetics, or preparation of any food or drink in any area in which radioactive material is handled or stored. Personnel having handled radioactive material will monitor and wash their hands before smoking, eating, drinking, chewing, and/or application of cosmetics. Washing and monitoring should be repeated until radiation levels are no greater than background.
- (7) Radioactive materials will be stored only in containers and areas designated by the LRSO.
- (8) Tools and other equipment used in areas where spreadable radioactive material is present will be regarded as contaminated and will not be taken outside the area until a survey indicates that the item is free from contamination.
- (9) No source of radiation will be used in a non-radiation, unrestricted area, in such a manner as to create radiation levels which, if an individual were continuously

present in the area, could result in him/her receiving a dose in excess of two millirem (2 mrem) in any one hour. Or if any individual were continuously present in the area could result in receiving a dose in excess of one hundred millirem (100 mrem) in any seven (7) consecutive days.

b. Instructions to Personnel Working with Radioactive Material:

- (1) Individuals working in or frequenting any portion of a radiation controlled area will be instructed in the hazards associated with exposure to radioactive materials, the precautions or procedures to minimize exposure and all pertinent regulations and emergency procedures which apply to that area.
- (2) Prescribed monitoring equipment (i.e., TLDs) will be worn at all times when calibrating RADIAC instruments with the AN/UDM-2 RADIAC Calibrator set, when leak testing the AN/UDM-2, when surveying the storage area of the Density Moisture Tester, Model 3440 Plus, when leak testing and using the Density Moisture Tester, Model 3440 Plus.
- (3) Prescribed protective equipment will be worn at all times in areas where spreadable radioactive material in excess of prescribed limits is present.
- **(4)** Monitor hands, hair, face, and protective equipment with appropriate instruments frequently when working with radioactive materials and upon completion of work.
- **(5)** Prior to leaving the work area, monitor all exposed areas of the body and personal clothing with appropriate instruments.
- **(6)** In the event any exposed body areas and personal clothing give an indication of being contaminated, initiate appropriate decontamination procedures and contact the LRSO immediately.
- (7) Even if no contamination is found, the hands will be washed, preferably before leaving the area if wash facilities are available.
- (8) If an accidental contamination event has occurred or is suspected, contact the SRSO. A physical examination as recommended by the medical officer will be accomplished as soon as possible.

c. Radiation Safety Standards:

- (1) The maximum permissible external exposure to personnel from any source of radioactive material in possession of the NYARNG will be in strict accordance with the permissible limits specified in DA Pamphlet 385-25.
- (2) Persons who have not reached their eighteenth birthday will not be permitted access to any radiation area under control of the NYARNG except with the permission of the LRSO. Such authorized persons may receive 10% of the Radiological Safety Standards listed in DA Pamphlet 385-24.
- (3) Once a female voluntarily declares her pregnancy in writing, the RSO in coordination with the worker's supervisor and the SRSO, will determine if a change in duties is warranted.

7-5. Tritium Safety and Maintenance of Tritium Devices.

a. All direct support maintenance activities are required to have and maintain Standard Operating Procedures (SOPs) for tritium commodities. This pamphlet will be used as a guide in preparing local SOPs.

b. Tritium Hazards:

- (1) Biological Effects. Tritium contamination and airborne radioactivity are biological hazards.
- (2) If you breathe tritium oxide (tritium water vapors) or it contacts your skin, your body will absorb the tritium. Studies have shown that a person exposed to an atmosphere containing tritium vapors will absorb about one-third to one-half as much tritium through the skin as via inhalation (i.e., one-third through the skin and two-thirds via inhalation). Therefore, release of tritium into a closed space may constitute a very serious internal hazard. Tritium distributes equally among all body fluids just as it does with normal water. All tissue in contact with body fluids will be exposed. These tissues are all soft tissues and make up about 90 percent of the body.
- (3) Tritium Elimination. The average adult takes in about three liters of water a day. The average adult also excretes about three liters of water per day. About one-half of this water is urine; the rest is eliminated via exhalation, diffusion through the skin and sweat. After an exposure to an atmosphere containing tritium it takes from two to four hours for the tritium concentration in the urine to equal the tritium concentration in body fluids.

An adult who has had a single exposure to an atmosphere containing tritium oxide, without additional exposure, will eliminate this tritium oxide at a rate of about three liters per day while diluting the remaining tritium water with his daily intake of about three liters of tritium-free water. This results in the effective half-life of tritium in the body being about 10 days, i.e., the amount of tritium in the body is reduced by one-half every 10 days.

- (4) Exposure Limits. Field users and maintenance personnel are typically not designated as radiation workers. They are considered members of the public for purposes of radiation exposure control. The radiation of field users and maintenance personnel should be less than 2% of the annual limit permitted for radiation workers. Radiation workers may receive 5000 millirem total effective dose equivalent per year while working with radiation. Members of the public may receive no more than 100 mrem total effective dose equivalent per year as a result of exposure to radiation from sources licensed by the U.S. NRC.
- (5) Radiation Safety. The tritium sources used for illumination by the military are not biological hazards as long as they remain sealed. The energy of the radiation emitted during tritium decay is so low that it cannot penetrate the glass vial containing the source, or the cover glass on a tritium painted dial face. The container for the tritium source must be damaged before the tritium can escape. Released tritium may become airborne and cause contamination of personnel and work areas.
- (6) Exercise Caution. Opening or disassembling components containing damaged tritium sources will release tritium oxide and the work area will be contaminated. Depot maintenance areas have proper facilities and programs supported by installed equipment that reduces the hazard of opening a component that contains a broken tritium source. Maintenance of fire control devices containing tritium sources is restricted to the level of maintenance authorized by the Technical Manuals. The components that house the tritium source should not be disassembled by any user or maintenance personnel.
- (7) Working Safely with Tritium. The NRC license issued to the US Army for tritium devices state that the instructions and cautions contained in the TM will be followed. Good work practices start with equipment familiarity. The TM and/or TB for the equipment should be read before using the equipment or performing maintenance on the equipment.
- (8) First Rule of Tritium Safety. Authorized maintenance should not be performed if the proper equipment is not available. Do not disassemble any components containing a tritium source and never attempt to repair a damaged tritium source. If the source is damaged, bag the entire item containing the source and contact your local

Radiation Safety Officer (RSO). To bag an item place the item with the damaged source in a plastic bag, then place the bag into another plastic bag (double bag). Label the outer bag "Damaged Tritium Source - Do Not Open." Always use latex gloves while handling tritium products. Contaminated gloves will be turned into the USP&FO for disposal in double-bagged plastic bags, remember to label the bag with contents, radionuclide, activity and date.

- (9) Performing Authorized Maintenance. Maintenance will <u>not be performed</u> on broken tritium devices. Authorized user maintenance on an item does not involve the tritium source. The TM for items containing tritium sources limit user maintenance to work on the exterior of the item. The only exception to this is the purging of the M1A1 collimator. This procedure does not affect the tritium source if performed with the proper equipment and instructions are followed. However, the possibility of damage to the tritium source is always present during maintenance procedures. Simple precautions taken before work begins can protect you and the work area if an accident occurs. Proper preparation of the work area can reduce contamination and personnel exposure when a source is damaged. The following steps should be included in your local procedures for authorized maintenance on end items containing radioactive sources: Isolate the work area from the remainder of the maintenance shop, if practicable. If a source is damaged during maintenance the area must be secured until surveys have been performed that verify the area is not contaminated:
- (a) Assemble all required tools before performing maintenance. If the proper tools are not available, do not perform the maintenance. Contact your maintenance support group for assistance.
- **(b)** Remove all equipment that's not required for the maintenance procedure being performed from the work area. Items to remove are unnecessary toolboxes, tools, spare parts electronic equipment, personal radios, technical manuals, etc.
 - **(c)** Cover the workspace with disposable paper (i.e., kraft paper).
- (d) Do not allow eating, drinking, smoking, chewing gum or tobacco or applying cosmetics in the work area/room.
- **(e)** Maintain a positive flow of ventilation for the area. Ventilation should be away from the all personnel and should exhaust outside the building.

- **(f)** Limit access to the area to those involved in the maintenance procedure.
- (g) Ascertain where on the commodity the tritium source(s) are located.
- **(h)** Take special care not to damage the source during maintenance. Do not pry, push, or hammer on or near the area of the equipment containing the radioactive source.

NOTE: The ionizing radiation from tritium has such a low energy that portable radiation survey meters in the field are not capable of detecting the presence of tritium on surfaces. The only way to detect the presence of tritium on surfaces is by swipe samples counted with a liquid scintillation counter (LSC). The LSC is laboratory equipment and not normally available for use in the field.

- (10) Identification and Handling of a Damaged Tritium Source. Low Illumination. Tritium gas sources that show weak or no illumination may be damaged. Occasionally a tritium gas source will have illumination that is low or irregular. This may be due to condensation in the equipment or the age of the source. Check the date of manufacture. If the device is over 8 years old, return the device to the depot to have the source replaced. If damage is not apparent, the device does not have to be bagged. If the date of manufacture is less than 8 years, inspect the device for damage. Do not disassemble the device. If condensation is suspected and the TM for the device contains purging instructions, perform a purge. If the TM does not contain purging instructions or purge does not change illumination level, send the device to depot for repair, if the device is not broken.
- **(11) Broken Lens**. Painted dial faces with a broken lens or flaking paint may be leaking tritium. If damage is detected, double bag the device, label (Broken Tritium Device Do Not Open) and notify the LRSO.
- (12) Handling Damaged Sources. If source leakage is identified or suspected (loss of illumination, glass cracked, etc.), notify your LRSO immediately. Follow the instructions for handling the device to prevent possible area contamination. The worker should remember that contamination may be present.
- (13) Treat a Commodity with a Damaged Tritium Source as a Radioactive Contaminated Item. Use latex or plastic gloves to handle a damaged tritium device, and, after use, dispose of the gloves as contaminated waste.
- **(14) Disposing of Damaged Sources.** Package and dispose of the devices as directed by the appropriate TM or the item licensee.

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(15) Reporting Incidents. Report all incidents involving radioactive material to your immediate supervisor and then to the SRSO. The SRSO shall contact the NGB RSSO who in-turn will contact the AMC major subordinate command (MSC) that holds the license for the commodity involved. The responsible MSC is normally listed on the item or in the item TM and TB. After initial calls are made initiate a "Radiation Incident Form," a sample form is provided NYARNG Regulation 385-24. The SRSO should have the following information available for the notification call to the NGB RSSO or if you cannot reach the NGB RSSO, call the NRC licensee directly:

- (a) Item nomenclature.
- (b) End article National Stock Number (NSN) and Part Number.
- (c) Radioactive Source (i.e., the radionuclide).
- (d) Manufactured activity and date of manufacture
- (e) Time and date of incident/discovery of leakage.
- (f) Where incident occurred (State, City, Post, Building, Area).
- **(g)** Personnel involved. The total number of personnel involved and the degree of involvement (potential exposure) of each individual.
 - (h) What actions have been taken?
 - (i) Situation Status.
 - (J) Is assistance required to mitigate the incident?
- (16) General Procedure for Tritium Bioassay. When a bioassay is required, urine sample collection should be performed after the tritium taken into the body has reached equilibrium conditions in the body fluids. Equilibrium is achieved approximately 4 hours after the uptake. Ideal sample collection time would be 4 to 5 hours after a suspected exposure to tritium. Obtain the sample as soon as practical following the 4 hour period after discarding the first void. The NRC licensee will determine when a bioassay is required, therefore, report the damaged source ASAP to the SRSO and the NGB RSSO who in-turn will report to the NRC licensee. If you cannot reach the SRSO and the NGB licensee call the NRC licensee directly.

(a) Sample collection. Sample kits should be obtained and processed in accordance with instruction from U.S. Army Public Health Command (PHC).

(b) Sample containers. Urine sample containers may be acquired from local medical supply facilities. The use of any urine specimen container that can be labeled and sealed to prevent leakage during shipment is acceptable.

(17) Emergency Procedure for Tritium Devices:

- (a) Broken tritium devices will be contaminated with tritium (H-3) and must be immediately double wrapped in plastic bags and evacuated to the USP&FO for shipment to Depot for repair or disposal. The outside of the package must be identified as "Broken Tritium Device(s) Do Not Open. "Broken tritium devices must be handled with latex gloves to prevent contamination to hands.
- **(b)** Place broken tritium devices in double plastic bags and seal with tape. Bagged item must be placed in shipping containers prior to shipment to depot.
 - (c) Rope off area suspected of containing contamination.
- (d) Perform contamination surveys as required. Contaminated personnel must report to the local RSO who will contact the Occupational Health Nurse who will coordinate medical treatment and bioassays if necessary.

7-6. Radiological Emergencies.

- **a.** Any NYARNG commander, supervisor, or technician who recognizes what he/she considers to be a radiological emergency (an incident showing evidence of loss, unauthorized use, or accidental release of radioactive material) will immediately notify the following personnel listed in order of priority. During duty hours, 0700-1530 Monday through Friday, notify the:
 - (1) SRSO, Telephone Number: (518) 786-6121.
 - (2) ASRSO, Telephone Number: (607) 763-3140.
- (3) NYARNG SOH Office, Telephone Number: (Comm) (518) 786-6097, (DSN) 489-6097.
- (4) The NGB RSSO, Telephone Number: (Comm) (443) 395-3790, (DSN) 648-3790.

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- (5) During non-duty hours, notify TAG Staff Duty Officer: (518) 786-4984.
- **(6)** All Laser accidents shall be reported to the Tri-service hotline and to the USAPHC and follow all applicable accident reporting procedures.
- (7) All Radio Frequency Radiation (RFR) accidents shall be reported to USAPHC and follow all applicable accident reporting procedures.
- **b.** The following emergency procedures are to be followed in the event of an accident or fire in areas where radioactive material is stored or used:
- (1) Keep away from the immediate accident scene except to rescue personnel or provide emergency medical assistance.
- (2) Obtain immediate assistance from the first available source and exclude all unauthorized personnel from the scene of the accident.
- (3) Stay out of smoke or vapors (except to carry out 4-6b (1) above). If available, respiratory protective equipment will be used. Ventilation systems will be shut down to minimize the spread of contamination.
- **(4)** Evacuate, isolate, and restrict personnel who may have been exposed to contamination and have them examined by qualified personnel.
 - (5) Do not permit the removal of any items by unauthorized personnel.
 - **(6)** Do not permit entry into accident area by unauthorized personnel.
- (7) The RSO/Alternate RSO will evaluate, as soon as possible, any dosimeters on exposed personnel.
- (8) If any part of the body area is contaminated, advise medical personnel and perform preliminary decontamination or provide adequate cover with any available clean material to prevent spread of contamination. Personnel who require immediate evacuation for medical treatment will be tagged to alert medical personnel of possible radioactive ontamination.
- **7-7. SOH Coordination.** The NYARNG SOHM and the NYARNG OHN shall work in conjunction with the State Radiation Safety Officer to ensure the following:
 - **a.** The SOH shall approve all ARA's, ARA renewals, and ARA amendments.

b. Ensure that all captured, purchased, borrowed, or otherwise obtained foreign equipment/material are surveyed for RAM and that appropriate actions are taken following discovery of any RAM whenever applicable.

- **c.** Ensure subordinate commanders at all levels instruct radiation handlers users in safe working conditions and operating procedures IAW applicable regulations and directives.
- **d.** Ensure RSO's, LSO's, and RFSO's at all levels are trained to a level commensurate with the duties and responsibilities of the Radiation Safety Program for which they are responsible and IAW applicable NRC regulations and license conditions.
- **e.** Ensure subordinate commanders have available all NRC Licenses, Army Radiation Authorizations, and Army Radiation Permits for Radioactive Materials and machine produced ionizing radiation equipment.
- **f.** Ensure subordinate commands establish Radiation Safety Committees (RSC) as per NSC license requirements or as need dictates, the RSC provides information on issues to command and are audited by the command. A valid process for this communication and abatement of hazards is through the Safety Council minutes
- **g.** Ensure that an internal or external agent or agency audits the NYARNG Radiation Safety program annually.
- **h.** Ensure that subordinate commands comply with conditions of AMC held radioactive commodity NRC licenses and ARAs to include ensuring all personnel using RAM are aware of applicable regulations and conditions as appropriate.
- i. Ensure that an accurate inventory is maintained of military exempt lasers, Class 3B and Class 4 lasers as higher headquarters directs and in accordance with requirements. Report excess military exempt lasers to the Defense Reutilization and Marketing Service for utilization screening within DoD (DoD 4160.21-m-1, paragraph 3-2(c)).
- **j.** Review Emergency Action/Reaction plans as necessary and procedures for investigating and reporting radiation accidents, incidents and over exposure.

CHAPTER 8

SAFETY AWARDS PROGRAM

8-1. Introduction. Safety awards enhance NYARNG operations and improve Safety awareness by recognizing and promoting individual and unit/organizational accident prevention and successes.

8-2. Award Guidance.

- **a.** Criteria, policies, and procedures for nominating units and awards at the Department of the Army, Army Headquarters and Army National Guard are contained in DA Pamphlet 385-10, AR 385-10, and NG Supplement 1 to AR 385-10. Leaders at all levels are encouraged to recognize safe performance of individuals and unit overall safety achievement. Commanders shall develop awards tailored to recognize accident prevention accomplishments within their activity, operation or organization.
- **b.** Commanders are also encouraged to develop and implement programs for safety impact awards to promote safety awareness and accident prevention through on-the-spot recognition of safety-related actions that are above and beyond what is normally required of an individual or organization.

8-3. Educational and Promotional Items.

- **a.** Commanders at all levels will use the Safety Awards Program to promote education and awareness of safety and accident prevention using all available means. The use of incentive/promotional items can substantially contribute to accident prevention programs.
- **b.** AR 385-10 authorizes use of promotional items and AR 600-8-22 and AR 672-20 authorize their purchase. The use of promotional items to recognize safe performance is encouraged.
- **c.** Promotional items for safety must be distributed for valid reasons, for actions observed, and not with such frequency that they lose meaning and should identify all items as safety items via printing, logos, or other means.
- **d.** Use small, inexpensive items to recognize day-to-day safe performance. These items should not exceed \$15.00 in cost. Examples are pencils, pens, gym bags, key chains, cups, etc. Safety Awards issued for more exemplary service in Safety and occupational Health Awards will not exceed \$75.00. The SOHM must approve the distribution scheme.

e. Units are encouraged to take advantage of Unit Safety Certification Programs such as the Safety Excellence Award Streamer. Contact the NYARNG SOH Office for details on how to achieve a Safety Excellence Streamer for your unit guide-on.

- **f.** Promotional items will not be recorded on property books but purchase and justification for the distribution of the awards must be documented.
- **g.** The NYARNG SOH Office shall distribute educational and marketing information on the Army's Safety Awards program.

8-4. Safety Bulletin Boards.

- **a.** An identified safety bulletin board will be positioned in a prominent location where it will be readily observable by all personnel. Safety bulletin boards are required for the following locations:
 - (1) Each NYARNG unit.
 - (2) United States Property and Fiscal Office (USP&FO).
 - (3) Combined Support Maintenance Shop (CSMS).
 - (4) Field Maintenance Shop (FMS).
 - (5) Readiness Centers.
 - **(6)** Army Aviation Support Facility (AASF).
 - (7) Any other areas as deemed appropriate.
 - **b.** Items required by AR 385-10 to be posted are:
- (1) DD Form 2272, Department of Defense Safety and Occupational Health Protection Program.
- (2) OSHA Form 300A, Summary of Work-Related Injuries and Illnesses (where appropriate).

- (3) NRC Form 3, Notice to Employees, and Public Law 93-438, Section 206 (where applicable).
 - (4) A copy of the Unit Safety SOP or Command Safety Program, as appropriate.

c. Items highly recommended to be posted:

- (1) The commander's safety policy.
- (2) Appointment orders for Safety personnel and/or councils.
- (3) Latest safety council minutes.
- **(4)** Blank DA Form 4755, Employee Report of Alleged Unsafe or Unhealthful Working Conditions.
- **(5)** DA Form 4753 (when applicable), Notice of Unsafe or Unhealthful Working Condition.
 - **(6)** Safety posters.
 - (7) Safety Alert Messages.
- **8-5 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 certified by the commander at the next level, a certificate will be issued by the NYARNG Safety SOH Office recognizing the unit's achievement for the given time period.

a. To be certified, a unit must have completed the following:

- (1) Safety officer appointed in writing, who has completed the safety training outlined in Chapter 10, in this pamphlet.
 - (2) Implemented a written safety program IAW this pamphlet and AR 385-10.
- (3) Reduced the number of accidents, both on and off duty by 50 percent of the previous year.
- **(4)** Had in place an accident tracking and reporting system that complied with the requirements of this pamphlet and AR 385-10.

(5) Had in place a documented RM process demonstrating controls, implementation and identified risks.

(6) Sustained the above initiatives for a significant and established period of time, such as 1 year, 2 years, and so forth.

CHAPTER 9

SYSTEM SAFETY MANAGEMENT

9-1. Intent.

- **a.** This chapter describes the policies and procedures that ensure hazards in Army systems, equipment and facilities are identified and the risks associated with these hazards are properly managed.
- **b.** In accordance with (IAW) AR 385-10, systems safety management applies to all Army materiel systems, facilities, and equipment to include non-developmental items and commercial, off-the-shelf (COTS) items. It applies during all phases of the life cycle of systems, facilities and equipment. The concepts apply to all levels of procurement and acquisition programs down to and including the installation level. Each of the levels must incorporate safety measures IAW AR 385-10 into all actions. It is understood that the NYARNG is not engaged in system research and development or the purchase of non-developmental items nor are they materiel developers. It is also understood the NYARNG does not conduct tests, pretests or demo regarding System Safety.

9-2. Commercial, off-the-shelf (COTS), Non-developmental items, and Local Purchases.

- **a.** All Safety factors listed in AR 385-10 will be considered and documented prior to purchasing COTS, NDI and local purchases. COTS, NDI, and local purchases can pose potential problems concerning operational support and maintenance. These problems result because 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 and/or any safety standards?
 - (2) Has a 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 and/or 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 operating or using other military equipment?
- **(10)** Are there any interoperability and/or connectivity issues that cause safety hazards with the equipment?
- (11) Is COTS electrical equipment used in Army workplaces "Listed" or "Labeled" by a Nationally Recognized Testing Laboratory such as Underwriters Laboratories? Military equipment released to the field under the auspices of <u>AR 700-142</u> will be considered as equivalent to "Listed."
- **c.** The NYARNG SOH Office shall ensure that hazards discovered in fielded systems, facilities and material are assessed and communicated to the program management (PM) in a timely manner and are eliminated, controlled or accepted IAW DA Pamphlet 385-16. If milestone RM decisions are needed for fielded equipment, the SOH Office shall ensure that a Safety confirmation is developed and provided to the PM.
- **d.** The NYARNG SOH Office will ensure that acceptance of Army systems and equipment safety risks are performed at a level of management authority at the level commensurate with the risk and formal acceptance is used to document residual risk.
- **e.** The Army Materiel Command (AMC) and the U.S. Army Test and Evaluation Command are resources to contact for assistance in determining if there are potential interoperability or connectivity issues with locally purchased equipment.

9-3. Facility Safety System.

a. NYARNG facilities with uncontrolled residual hazards will not be used without

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executing the formal RM process. Emphasis will be placed on engineering out hazards in NYARNG facilities. Training, administrative procedures, and labels will be used as a last option (see order of precedence in MIL-STD-882E).

- **b.** Facility System Safety (FASS) engineering, management, and health analysis procedures for the design, construction, operation, and disposition of NYARNG military and civilian work facilities will be conducted IAW DA Pamphlet 385-16 and other current Army regulations. (These policies/standards/procedures are not contained within this pamphlet.) Coordination is required among all components in establishing, maintaining and using FASS in the design, construction, operation and disposition of facilities.
- **c.** Acceptance of NYARNG facility and equipment safety risks will be performed at a level of management authority commensurate with the risk.
- **d.** During the architect and/or engineer selection process, potential contractors will be evaluated for qualifications and experience with contractual FASS requirements.
- **e.** Design and facility use changes will be evaluated for increased risks according to DA Pamphlet 385-16.

CHAPTER 10

TRAINING REQUIREMENTS

10-1. Introduction. Training requirements for safety support during NYARNG operations is essential and is intended to reduce losses of manpower and equipment and conserve maximum combat capability. Safety training programs are designed to optimize overall conditions for a safe, healthful work and training environment which minimizes accident and occupational health related injuries and illnesses. Training of personnel in safety topics will be IAW applicable OSHA, DODI, AR's, DA Pam's, Office of Personnel Management, and ARNG directives.

10-2. Risk Management (RM) in Training.

- **a.** Leaders and managers are responsible for integrating RM into all Army processes and operations. NYARNG SOH Office and unit safety officers will provide RM training, tools, and other related assistance. Risk reduction through application of controls by training, procedures, cautions, and warnings help reduce accident probability.
 - **b.** Commanders are to ensure that the RM process is incorporated into training plans.
- **c.** Commands shall ensure that all NYARNG and civilian personnel are provided RM training in those areas needed for a safe and efficient execution of their task.
- **10-3. Safety and Occupational Health Training.** All NYARNG members and employees will be provided the appropriate safety and health training including specialized job safety and health training appropriate to the work performed by the employee (for example, clerical, printing, welding, maintenance, and computer operations). Such training also will inform employees of the NYARNGs Safety and Occupational Health Program, with emphasis on the employees' rights and responsibilities. This training, as a minimum, will be according to 29 CFR 1960, DA Pamphlet 385-10, NG Supplement 1 to AR 385-10 and Appendix E of this pamphlet.

10-4. Commanders.

a. Commanders are required to complete the Commander's Safety Course (CSC).
The CSC provides commanders the tools to manage their unit safety programs effectively and to incorporate RM into all unit planning and activities. It leverages multimedia, web-based distance learning technology and, as such, is accessible and easily retained for everyday

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use. The CSC is accessible through Army Training Requirements and Resources System. The USACR/Safety Center is the course proponent for the CSC. A copy of training will be retained in the unit's training records.

- **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 the CSC prior to assignment as company commanders.
- **c.** Additional training is available for supervisors (The Supervisor's Safety Course) and managers (The Manager's Safety Course) at the Army Learning Management System.

10-5. Safety Professionals.

- **a.** The NYARNG SOHM will complete training required per the applicable position description in existence at the time of their hiring and within the timeframe prescribed.
- **b.** The NYARNG SOHM shall ensure safety policies and procedures are established to ensure employees are provided appropriate safety training.
- **c.** The NYARNG SOH Office shall ensure leaders and managers integrate RM and/or Job Hazard Analysis into all NYARNG processes and operations.
- **d.** Safety Professionals will establish a training plan for meeting the training requirements. Using the Exposure based training matrix for all employees Table C-1 of DA Pamphlet 385-10.
- **e.** All NYARNG Safety professionals shall receive adequate training to perform their duties IAW 29 CFR 1960.
- **10-6. NYARNG Additional Duty Safety Officers (ADSO)/NCOs.** Soldiers/technicians designated as ADSO/ COs should be trained IAW AR 385-10.

10-7 Specialized Training Requirements.

a. The State Radiation Safety Officer (SRSO) and Alternate Radiation Safety Officer (ARSO) will complete required training IAW CECOM requirements and intervals. Unit level Radiation Safety Officers, known as Local Radiation Safety Officers (LRSO) will complete the required online training IAW CECOM requirements and within the timelines required.

b. Workers/employees involved with explosives and ammunition will complete training requirements IAW DA Pamphlet 385-64.

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 NYARNG personnel from private motor vehicles (PMV), Army Motor Vehicle (AMV), and Army Combat Vehicles (ACV) accidents.
- **b.** This chapter applies to all active duty Army (AGR) military personnel at any time, on or off a DoD installation; to NYARNG personnel while in a military duty status; to all DA civilian personnel in a duty status, on or off a DOD installation and to all personnel (including contractor personnel) in a DoD-owned motor vehicle.
- **11-2. Motor Vehicle Accident Prevention.** To facilitate accident prevention efforts, personnel listed below will accomplish the following listed tasks:

a. Commanders will:

- (1) Brief all fatal and other Class A or B vehicle-related accidents (on-duty or off-duty Soldiers and on-duty DA civilians, contractors and visitors on NYARNG installations/armories/ facilities) 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 ARs, 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 according to Army regulations.
- **(5)** Ensure that AMV driver candidates meet NY driver licensing requirements. Ensure that senior occupants of vehicles are familiar with their authority and responsibilities according to paragraph 11-2 c.
- **(6)** Ensure that senior occupants of vehicles are familiar with their authority and responsibilities according to 11-2 c.

(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) Formally recognize motor vehicle operators and organizations with sustained safe driving records.
- **(9)** Enforce the use of safety restraints, including but not limited to seat belts and child restraints as applicable.
- **(10)** Enforce compliance with safe motor vehicle operation guidance provided By respective military installation.
- **b.** Supervisors of Army Motor Vehicle operators (AMV) and Army Combat Vehicles (ACV) 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 11-3 c.
- (3) Verify that Army vehicle drivers meet rest, duty time, and the alcohol restriction requirements IAW paragraph 11-3 b.
- (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 the RM 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.

(9) Ensure that no Soldier be allowed to ride on or in the cargo compartment of a motor vehicle transporting explosives, fuel or other hazardous materials.

- (10) Ensure that vehicles transporting hazardous cargo (ammunition explosives, fuel, yellow-III radioactive label) display placards IAW AR 55-1.
 - (11) Army motor vehicles must have a serviceable fire extinguisher attached.
- (12) Ensure that personnel required to operate a motor vehicle while wearing Night Vision Devices are trained and tested in the use and operation of such devices.
- **c.** Senior occupant. The senior occupant of an AMV or ACV is the senior ranking individual present or, in the case of a combat vehicle, the vehicle commander (VC), and is responsible for the overall safety of the occupants. The senior occupant or VC will:
- (1) Ensure that the requirements of AR 385-10, this pamphlet and <u>AR 600-55</u> are met.
- (2) Ensure that the vehicle is operated in a safe manner and according to 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 drivers obey restrictions on headphones and listening devices, alcohol consumption, and minimize distractions.
- **(6)** Ensure that vehicle occupants use occupant restraint devices at all times. If the senior occupant cannot be ascertained, the driver will 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 according to the NYARNG maintenance SOPs.

- (10) Identify road and/or other driving hazards.
- **d.** Motor vehicle operators. The 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, and military vehicle regulations.
- **(2)** Report use of prescription or nonprescription medication that could reasonably impair driving or alertness to the immediate supervisor.
 - (3) Report hazardous operating conditions of the vehicles to the vehicle dispatcher.
- **(4)** After seeking emergency aid, report accidents immediately to the 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.
- (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 according to the provisions of AR 385-10, this pamphlet, FM 21-60, and <u>TC 21-305-20.</u>
- (11) Ensure that personnel riding in tactical or combat vehicles have been trained and have rehearsed crew evacuation or rollover and fire drills.

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11-3. Safe Motor Vehicle Operation.

a. Occupant protection. Occupant protective devices will be worn by all persons in or on an Army-owned motor vehicle whether on or off the installation.

- **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).
- (3) If more than 10 hours are needed to complete operations, commanders will assign a qualified assistant driver.
- **c.** Headphones, earphones, and listening devices. Wearing portable headphones, earphones, or other listening devices (except for hands-free cellular phones) while operating a motor vehicle is prohibited.
- **d.** Hand-held device use. Vehicle operators on DoD installations and operators of government-owned vehicles, on or off the installation, will not use cellular phones or other hand-held electronic devices unless the vehicle is safely parked or they are using a hands-free device. This prohibition includes text messaging using hand-held devices. Government-supplied electronic equipment that may be used for text messaging or other hand-held uses is prohibited for use by DoD personnel while driving any vehicle whether or not on official government business.
- **e.** 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 according to <u>FM 21-60</u>, <u>TC 21-305-20</u>, and <u>TC 21-306</u>.
- (2) 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.

(3) When backing or maneuvering in controlled access construction sites, a signal person will 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.

11-4. Safe Movement of Personnel.

- **a.** General movement of personnel. Movement of SMs in AMV is permitted by AR 385-10, paragraph 11-5 a. (1). However, it should not be the first choice of commanders. Commercial passenger vehicle assets should be planned and requested in advance of inactive duty training (IDT) and annual training (AT) events.
- (1) When AMVs must be utilized for troop transport operations, the following minimum general safety requirements must be met:
- (a) Fixed seating is installed and passengers are seated wholly within the body of the truck.
- **(b)** The vehicle 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).
- (d) The last vehicle in the convoy will not be used to carry passengers in the cargo area.
- **(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.

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(5) Personnel will not be transported in the bed of an Army truck, off post, unless the truck is specifically designed to carry troops.

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- **(6)** When transporting passengers in cargo trucks in which cargo is loaded, ensure that 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.

11-5. Tactical Vehicle Safety.

- **a.** Requirements. The following safety requirements apply to vehicles operated in non-combat, 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 local laws prohibit using 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 RM 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. Prior to convoy operations all units will refer to AR 385-10, DA Pamphlet 385-40, FM 55-30, FM 4-01.45, ATP 4-11 and ATP 5-19. Commanders will

develop a detailed Deliberate Assessment Worksheet and conduct a thorough convoy brief before movement.

- **c.** The maximum speed authorized for military vehicles on expressways is 50 MPH. Military vehicles moving on controlled access highways will maintain the posted minimum speed or 40 MPH if a minimum speed is not posted.
- **d.** Vehicles that cannot maintain the posted minimum speed will be routed over an alternate non-controlled access road (refer to AR 55-162). Under no circumstances will the posted maximum speed limit be exceeded.
- **e.** Convoy vehicle drivers are **not** to give "clearance signals" to civilian vehicle operators. Responsibility for determining safe passing conditions rests with the driver desiring to pass.
- **11-6. Driver Education.** Tactical vehicle drivers are required to complete vehicle-specific training as required by AR 600-55.

11-7. Motorcycle Safety.

a. Commanders at all levels shall ensure that motorcycles and moped operators are required to comply with AR 385-10 paragraph 11-9. All elements of the Progressive Motorcycle Training Safety program shall be followed.

b. Licensing:

- (1) Operators of government-owned and privately-owned Motorcycles (MC) (both street and off-highway versions) on Army installations must be appropriately licensed to operate on public highways except where not required by local laws.
- (2) MC riders who operate MCs on or off post must comply with the skills training, licensing, and permit requirements of their state of residence as well as the State of NY.
- (3) All civilian personnel or contracted laborers that are properly licensed to ride a MC will not be required to receive training or to prove that they have taken other MC training in order to operate a MC on a DoD installation.
- **(4)** Prior to operating any MC, Soldiers will successfully complete an appropriate MSF-based Basic Rider Course (BRC) or state-approved curriculum for MC operator's safety training.

- (5) Soldiers are required to complete the Experienced Rider Course (ERC)/ BRC-II within 12 months of completing the BRC and every four years thereafter IAW AR 385-10.
- **c.** Personal Protective Equipment. NYARNG personnel, regardless of duty status, are required to wear PPE when operating a motorcycle on military installations. Rider PPE includes:
 - (1) Department of Transportation-approved helmet.
 - (2) Face shield or impact goggles properly attached to the helmet.
 - (3) Sturdy over the ankle footwear.
 - (4) Long sleeved shirt or jacket.
 - (5) Long pants.
 - **(6)** Full fingered gloves or mittens designed for motorcycles.
- (7) SM are encouraged to select PPE that incorporates fluorescent colors and retro-reflective material.

11-8. Army Combat Vehicle Safety Guidelines.

- **a.** Army combat and track vehicle commanders. Each ACV will have a track commander or VC who will occupy the commander's position within the vehicle. The track commander or VC will receive vehicle-specific training on the vehicle's capabilities and limitations.
- **b.** 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.
- **c.** Commanders will ensure that sleeping area perimeters are designated and marked. They should select sleeping areas protected by natural obstacles when possible. 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.

d. Prior to leaving a motor pool or assembly area in tactical environments, the track commander or VC will walk completely around the vehicle to check for personnel clearance and/or other hazards in the vicinity of the vehicle.

- **e.** 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 track commander or VC, driver, and dismounted ground guide will maintain visual contact at all times.
- **11-9. Pedestrian and Bicycling Safety.** Commanders at all levels shall ensure that pedestrian and bicycling Safety are an emphasized part of the overall Traffic Safety Program. Pedestrian and bicycling safety is paramount. To meet this end, operators of motorized vehicles and equipment will obey posted speed limit signs and be mindful of the potential presence of runners, walkers and cyclists. Walkers and runners are reminded to run/walk facing traffic and to wear reflective clothing/belts when outside during periods of limited visibility.

CHAPTER 12

FORCE MOBILIZATION

- **12-1. Intent.** Projecting NYARNG soldiers into any environment during hostilities, contingency operations, or support to civil authorities involves unique and often mission-specific safety concerns and risk. Therefore, RM will be used to identify and control hazards and leaders at all levels shall establish a command climate that promotes safety and takes every measure and precaution to keep Soldiers healthy and maintain their morale.
- **12-2. Application of Risk Management.** When applying RM, use mission, enemy, terrain and weather, troops, time available, and civil considerations to systematically identify hazards according to Army Doctrine Publication (ADP) 3-0 and ATP 5-19. NYARNG leaders shall incorporate RM in regulations, directives, SOPs special orders, training plans and operational plans to minimize accident risk, death, injury or loss of property. NYARNG commanders and leaders shall develop and order the utilization of individual Risk Assessments beginning with the redeployment and carrying on through the reconstitution process.

12-3. Standards.

- **a.** Safe operations come from enforcing standards during training and then applying them during actual operations. Therefore, NYARNG 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 RM 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 command safety policy and designating safety personnel within each subordinate command down to the company level.
- **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 demand a commitment of commanders and leaders at every level to ensure that Soldiers execute to standard throughout the operation. If under the control of NYARNG, leaders shall include training sessions, redeployment surveys, and medical screening for Soldiers prior to them leaving theatre if not captured by another command element or mobilization station.

12-5. Health Issues.

- **a.** Pre-deployment medical and/or dental screening and appropriate pre-deployment prophylaxis (measures designed to preserve health) are vital and will be instituted prior to deployment, as appropriate. Guidance will be provided by the combatant heath authority, the state surgeon and/or other health authority.
- **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, CONUS or OCONUS.
- **c.** Proper education and pre-deployment medical and/or dental screening will be used to prevent unnecessary loss of Soldiers during all phases of deployment, as required.
- **d.** The occupational and environmental health surveillance requirements as delineated in DODI 6490.03 will be implemented as required.

CHAPTER 13

TACTICAL SAFETY

13-1. General.

- **a.** This chapter establishes the requirements for safety during training, contingency, and tactical operations, regardless of the setting/locale. Unless otherwise specified, the provisions of this pamphlet apply to both peacetime training operations, contingency 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.** RM will be integrated into all tactical and contingency operations according to ATP 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.
- **c.** Commanders at all levels shall ensure safety and RM are integrated and controls are established for identified hazards in tactical operations and listed within their SOPs.
- **13-2. Preparation for Tactical Operations**. Preparation for tactical operations must be completed as far ahead of time as possible before deployment to ensure that complete, accurate, efficient, and safe procedures and policies are in place. The NYARNG SOH Office shall coordinate with troop organizations to establish safety guidance for their troops participating in exercises through the most expeditious means possible. The SOH Office shall establish specific plans to assure continuity of safety program services during tactical operations or mobilizations.
- **13-3. Tactical Orders.** All plans and orders will address RM and safety management specific issues according to ADP 5-0 and applicable operational specific FMs. The results of the risk assessment and countermeasures will be integrated throughout the order as applicable.
- **13-4. Safety Training.** All participants will be provided safety training in those areas needed for safe and efficient execution of the operation. This training will specifically address:
 - a. The PPE required
 - **b.** General safety requirements peculiar 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.

13-5. Tactical Water Safety Operations.

a. Commanders of units conducting water operations or conducting operations in or around water hazards will develop and implement standard procedures to identify visually weak and non-swimmers and provide water survival training appropriate to their mission on the most likely water hazards that personnel may encounter.

- **b.** Commanders of units conducting water operations will develop and implement standard procedures and advanced training for vehicle fording operations, stream crossings, and swimming. Commanders in the grade of 0-6 and above may approve deviations from this pamphlet as the mission dictates.
- **13-6.** 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 non-battle 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 RM 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.

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13-7. 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. If sleeping areas are not protected from vehicle traffic by natural barriers, procedures to protect sleeping personnel must be established.
- **b.** Camouflage. Soldiers suffer many head and other injuries from camouflage poles that fail. Commanders must ensure that personnel wear head protection (Kevlar) when setting up camouflage or are under camouflage systems during strong winds.
- **c.** Field sanitation. FM 21-10 governs sanitation and field hygiene and field sanitation teams.
 - d. Generators.
 - **e.** Field mess operations.
- **f.** Storage of flammable liquids and gases. Flammables must be stored IAW AR 385-63, TM 38-410 and 29 CFR 1910.106.
- **g.** Fire extinguishers. Fire extinguishers must be readily accessible and personnel must be trained in their use.
 - **h.** Grounding of equipment.
 - i. Restriction and/or control of motor vehicles.
 - i. Heaters.
 - **k.** Carbon monoxide poisoning awareness.
 - **I.** Antenna and or signal equipment.

13-8 Convoy Operations.

a. NYARNG convoy operations will comply with safety provisions outlined in AR 385-10, FM 55-30 (Chapter 5), and FM 4-01.45.

- **b.** High-speed highways may be used when all vehicles in the convoy can safely maintain a speed at least equivalent to the posted minimum speed, or 40-mph if not posted.
- **c.** Radio whip antennas should be tied down to not less than 7 feet and no more than 10 feet from the ground with antenna tips covered by protective ball when operated outside the training area or near aircraft.
- **13-9. Head Protection.** Kevlar Helmet, Advanced Combat Helmet (ACH), Combat Vehicle Crewmember or Flight Helmet as appropriate, shall be worn by all NYARNG operators and occupants of Army Tactical Vehicles in the field. Training site, company, battery, and troop commanders will have the authority to prescribe the headgear required in Army Tactical Vehicles when not in a field environment.

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 and/or redeployment operations for all NYARNG activities. Commanders and leaders of the NYARNG shall use AR 385-10, Defense Travel Regulation 4500.9-R and the SDDCTEA Pamphlet 55-20 (Tie-down handbook for Truck Movements) as the governing source of all safe cargo 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.** Ground Guides shall be used and shall be conspicuous by wearing illumination devices or high visibility clothing.
- **c.** Personnel assigned to operate vehicles and material handling equipment (MHE) shall be trained, licensed and experienced.
- **d.** Vehicle drivers within the NYARNG have the authority to refuse a load that he/she believes violates any safety provision for which he/she may be held liable for during the journey. Commanders and leaders at all levels shall adhere to this and provide the vehicle drivers this discretion of authority.
 - **e.** 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 will be provided.

- **f.** Personnel handling cargo that qualifies as HAZMAT will also:
- (1) Receive 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 according to the transportation modes to be used.
 - (2) Be assigned duties only for which they are specifically trained.
- (3) Perform duties according to the applicable state and/or national transportation mode regulations for the journey. Within CONUS, 49 CFR applies. Individuals' assigned HAZMAT tasks will 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 Manual 24-204 (AFMAN) (I)/ TM 38-250 /NAVSUP PUB 505/MCO P4030.19/ DLAI 4145.3 for military air transport.
- (d) International Air Transport Association Dangerous Goods Regulation for commercial air transport.
- **(e)** International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air.
- **(f)** Package, mark, label, load, and placard the transport unit according to the applicable mode regulation.

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 <u>DA Pamphlet 385-30 to help them assess hazards and risks.</u>
- **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 will be trained, licensed, and experienced. Ground guides will be used and will be conspicuous

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c. Railhead operations. In the event railhead operations are utilized, a railhead safety officer and safety NCO will be appointed by the responsible leader and/or commander.

- **d**. Port operations. In the event of port operations, a port operations safety officer and safety NCO will be appointed by the responsible leader and/or commander.
- **e**. Personnel involved in port operations will be trained in their respective duties and the hazards involved in the operating area.

f. Supercargo operations.

- (1) Supercargoes refer 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 tie-downs, control access to cargo, document items that cannot be repaired in-route, and brief the port commander at the seaport of debarkation on vehicle conditions and any unusual circumstances concerning the cargo. Super cargoes 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 Army Tactics, Techniques, and Procedures (ATTP) 4-15 for RM for watercraft operation.)

g. 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 concerning rail specific hazards.
- (2) Escorts will not climb on equipment loaded on railcars once the car has been prepared for movement.
 - (3) Escorts carrying weapons will be briefed on specific rules of engagement.

14-4. Ammunition and Explosives Transport Requirements.

a. Transport operations of all Ammunition and Explosives within CONUS shall be conducted in compliance with AR 385-10.

- **b.** Commanders are prohibited from using the risk assessment process to waive statutory requirements concerning vehicle loads, especially concerning hazardous loads.
- **c.** Vehicles used to transport Ammunition and Explosives (A&E) must either be a completely enclosed van-type vehicle with a separate passenger compartment or be equipped with side stakes with the cargo protected by a tarpaulin or canvas top that completely covers the load.
 - **d.** Cargo must be secured against movement in any direction.
- **e**. Army vehicles transporting ammunition or explosives will be equipped with at least two Class 2-A 10BC or equivalent fire extinguishers.
- **f.** Vehicle brakes will be set and at least one wheel chocked during all loading, unloading, and tie-down operations.
- **g.** Emergency response information for ammunition or explosives will follow instructions on <u>DD Form 836</u> (Dangerous Goods Shipping Paper/Declaration and Emergency Response Information for Hazardous Materials transported by government vehicles) in the event of an accident involving HAZMAT.
- **h.** Emergency contact phone numbers for transportation information will be indicated on the shipping documents.
- **14-5. Biological Agents and Toxins Transport Requirements.** The NYARNG does not transport biological agents or toxins.

CHAPTER 15

AVIATION SAFETY MANAGEMENT

- **15-1. General.** Aviation safety will be a prime consideration in all mission and training planning and operations, including wartime and contingency operations.
- **15-2. Aviation Safety Policy Program.** The NYARNG has an established Aviation Safety Program that meets the requirements of AR 385-10, Chapter 15, DA Pamphlet 385-90 and with an independent policy from this pamphlet.
- **15-3. NYARNG SOH Coordination.** The NYARNG SOH Office shall work with the Aviation Safety subject matter experts to ensure that the best possible Aviation Safety Program exists within the NYARNG. This shall be accomplished by ensuring that:
- **a.** NYARNG leadership and/or subordinate commanders have a formal written Aviation Safety Philosophy.
- **b.** The NYARNG AASF shall have a full-time position for a qualified State Aviation Safety Officer or qualified Aviation Safety Technician on their manning document and someone qualified is filling the slot.
 - c. NYARNG leadership have established an active Aviation Safety Council.
- **d.** The NYARNG ASO and applicable subordinate commands conduct monthly safety education and training classes.
- **e**. NYARNG Leadership and applicable commands correct deficiencies found during accident prevention surveys, and that accidents involving aircraft are investigated and analyzed to the extent needed to identify cause factors and deficiencies; and to develop counter measures to prevent similar accidents.
- **f.** Action is taken on all Operational Hazard Reports (OHR) as applicable and that procedures and processes are in place that the OHR (DA Form 2696) information is disseminated throughout the command.
- **g.** NYARNG leadership have an Endurance Management Policy to ensure fatigue is controlled or eliminated from operations.

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h. NYARNG leadership have an active program to minimize aircraft damage from Foreign Object Debris (FODs).

i. NYARNG leadership review applicable subordinate commanders Aviation Accident Prevention Surveys.

OCCUPATIONAL SAFETY AND HEALTH PROGRAM

16-1. Introduction. This chapter prescribes policy and responsibilities for implementing the OSHA program mandated by federal or state regulations and to reduce the risk of accidental losses, injuries, and occupational illness to the NYARNG military and DA civilian workforce as required by EO 12196, 29 CFR 1960, and DODI 6055.01. 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 Pamphlet 385-10. The state shall execute its Occupational Health budget IAW the NGB spend plan. The NYARNG shall provide adequate staffing with the appropriate training to execute the minimum requirements of an Occupational Health program. This chapter will serve as the baseline for the NYARNG medical surveillance program. The NYARNG shall measure the effectiveness of the Occupational Health Program to ensure that it is fiscally and regulatory compliant.

16-2. Policy.

- **a.** OSHA programs and national consensus standards will be applicable to and integrated into all NYARNG equipment, systems, operations, and workplaces.
- **b.** Military design, specifications, and deployment requirements will comply with OSHA standards where feasible. When standards do not exist for military application or the application is not feasible, the Army component will apply RM.
- **c.** NYARNG leaders and supervisors at all levels will promote strong safety programs, safe working conditions, and safe performance to prevent accidents, injuries, and occupational illnesses. The NYARNG SOH Office shall collaborate with key stakeholders across the state to ensure that the best possible Occupational Health program is provided.
- **d.** NYARNG employees/technicians shall be enrolled and dis-enrolled in/from the hazard based medical surveillance program. NYARNG will develop procedures as part of the NYARNG SOH Program to fulfill the following Army and OSHA requirements:
 - (1) Ergonomics.
 - (2) Hazard communications.

- (3) Respiratory protection.
- (4) PPE.
- (5) Materials handling training.
- (6) Blood-borne pathogens.
- (7) Confined space program.
- (8) Emergency action plans and fire prevention plans.
- (9) Fall protection.
- (10) Control of hazardous energy (lockout and tag out).
- (11) Process safety management.
- (12) Hazardous waste operations and emergency response.
- (13) Inspecting and abating hazards.
- (14) Reporting of unsafe and unhealthful conditions.
- **e.** DD Form 2272 (Department of Defense Safety and Occupational Health Protection Program) or equivalent poster will be posted in all workplaces and in places of easy access by employees.

16-3. Uniquely Military Equipment, Systems, and Operations.

a. Title 29 CFR 1960.2(i) states "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."

"The term uniquely military equipment, systems, and operations does not exclude, within the scope of the order, DOD, 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.** Federal Employees Compensation Act (FECA) Technician Injury and Illness. Diagnosis and treatment of injury, illness, or disease sustained in performance of official duties is covered under Federal Employees Compensation Act, 5 USC Section 8101 et seq.
- **16-5. FECA Reporting and Recordkeeping Procedures.** OSHA recordkeeping requirements must comply with 29 CFR Part 1960, subpart I and AR 385-10. Each recordable case will be on the appropriate OSHA forms within 7 calendar days of receiving information that a recordable case occurred. The following three forms, or their electronic equivalents will be used:
- **a. OSHA Form 301.** Injury and Illness Incident Report. Supervisors will submit a CA-1 or CA-2 to HRO's Workers Compensation Office, after review HRO will send to the Department of Labor, then the OSHA Form 301 will generate.
- **b. OSHA Form 300.** Log of Work-Related Injuries and Illnesses. Supervisors will keep a log of all the OSHA Form 301s, following the guidelines established by OSHA https://www.osha.gov/recordkeeping/RKform300pkg-fillable-enabled.pdf). After supervisors have completed this document for the calendar year, they will incorporate the data on to OSHA Form 300A and submit the 300A to the NYARNG SOH Office.
- c. OSHA Form 300A. Summary of Work-Related Injuries and Illnesses. According to OSHA regulations this form must be signed by the "Executive of the establishment," this document will be signed by the highest ranking technician of the department or organization. Each supervisor will post this form at the end of each calendar year from 1 February to 30 April. The OSHA Form 300A sent to the NYARNG SOH Office will be rolled up to an organization wide log that will be signed by TAG, and distributed to the managers and supervisors.

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- **d.** The DA Form 285-AB or 2397-series forms as appropriate, these forms will be used to report technician incidents through Army accident and incident tracking systems. The accident forms can be kept on equivalent forms, on a computer, or at a central location, provided information can be entered into the system within 7 calendar days after the injury or illness occurs and the data can be produced when required.
- **e.** These forms must be retained for 5 years within ARIMS IAW AR 25-400-2. All technician records shall be initiated, maintained, and retired IAW regulatory requirements to include ARIMS AR 25-400-2.

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. The subsequent paragraphs in this chapter provide the guidelines for inspectors to follow defining the process and requirements outlined in DA Pamphlet 385-10, paragraph 8-3(d).
- **17-2. Intent.** This chapter provides policy on the NYARNG SOH Program management with special emphasis on hazard recognition and workplace inspections. It implements the requirements of the OSH Act and prescribes DA/Army policy to protect and preserve NYARNG personnel and property against accidental loss, provides for safe and healthful workplaces, and assures regulatory compliance. It also provides for public safety incident awareness of Army operations and activities. Procedures and other guidance for workplace inspections, hazard reporting and recording are provided in DA Pamphlet 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. Employee reports of hazards shall comply with 29 CFR 1910.28, 29 CFR 1910.46 and DA Pamphlet 385-10.
- **b.** Supervisors are to inform all personnel of NYARNG SOH rules and regulations, to include using protective clothing and equipment provided for their protection. Supervisors are to ensure adherence to established procedures and take appropriate disciplinary action where deemed necessary.
- **c.** NYARNG employees, both military and DA civilians, are responsible for complying with standard Army SOH 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.

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d. Management and employees will work together to identify and correct hazardous conditions according to locally established procedures (based on RACs on a worst-risk-first basis). Hazards shall be eliminated on a worst-first basis and an abatement plan shall be prepared for all RAC 1 and RAC 2 hazards whose corrections shall exceed 30 days IAW DA Pamphlet 385-10, paragraph 8-5(b).

- **e.** Employees have the right to request that a OSHA representative conduct an inspection if they believe hazardous conditions are present in the workplace. Note: Employees are encouraged to contact NYARNG SOH Office to resolve any safety hazards prior to contacting OSHA, but they are not required to do so.
- **17-4. Application of Risk Management**. The requirements of <u>DA Pamphlet 385-30</u> will be applied to the hazard assessment, prioritization, and correction of workplace hazards.

17-5. Safety Inspections.

- **a.** Each time the supervisor or an employee enters the workplace, he or she 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 for hazards that cannot be corrected on the spot are submitted to DFE via Pride Web.

17-6. Standard Army Safety and Occupational Health Inspection Requirements.

- **a.** Only qualified Safety and Occupational Health professionals or specifically trained personnel shall conduct workplace safety inspections for the NYARNG. For that reason, the NYARNG SOH Office will be conducting all inspections within the NYARNG until otherwise directed. These workplace safety inspections shall be conducted at least annually for facilities with full-time personnel.
- **b.** Facilities and operations involving special hazards may be inspected more frequently as determined by SOH Office personnel.

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c. 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. A safety representative, or supervisor of the workplace will be given the opportunity to accompany the SOH Office during the physical inspection of workplaces.

d. SOH inspections will not be conducted in conjunction with any other visit or inspection, such as CLRT, COMET, etc. IAW AR 385-10.

17-7. Written Reports of Findings and Violations.

- **a.** Written reports of violations resulting from Standard Army Safety and Occupational Health Inspections (SASOHI) will be provided to the head of the activity and/or the full-time representative of the unit inspected. These reports will cite hazards and safety management deficiencies and will recommend corrective actions.
- **b.** Units/facilities with findings/violations will provide a written response back to the NYARNG SOH Office within 30-days of the report or as otherwise directed in the Get-Well Plan. This response will indicate those findings that have been successfully closed/resolved and the date of the resolution and for those findings unable to be closed by the date of the report, a plan for solution/abatement. Upon resolution the NYARNG SOH Office will close out the hazard within RCAS-SOH.
- **c.** NYARNG leadership shall Installation Abatement Plans at least annually to ensure adequate resource allocation and ensure non-resource intensive actions are accomplished at the lowest level.
- **d.** Notice of violations for RAC 1 and RAC 2 hazards detected during a SASOHI shall be recorded on a DA Form 4753 (Notice of Unsafe or Unhealthful Working Condition).

17-8. Occupational Safety and Health Inspections (OSHA).

a. Inspection of non-NYARNG workplaces by federal and state agencies will be done according to DODI6055.01 and 29 CFR 1960.

- **b.** These workplace safety inspections and occupational health assessments may be in response to a complaint from an 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 OSHA officials will be immediately admitted to conduct inspections at selected workplaces in a reasonable manner during normal working hours. However, the NYARNG SOH Office must be called immediately.
- **d.** Federal and state OSHA officials will initially report to the garrison commander or designated representative for an opening conference, if needed, and will be accompanied at all times on an NYARNG installation or facility. 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 OSHA officials' departure. Employee representatives will be invited to attend the opening and closing conferences.
- **e.** Upon request, federal and state OSHA 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 NYARNG safety inspections; or survey reports, accident reports, and abatement project information.
- **f.** When federal and state OSHA officials issue an OSHA-2H Form (Notice of Unsafe or Unhealthful Working Conditions), the commander should treat such notices in the same manner as similar internal notices and provide for abatement of significant deficiencies. Facilities that receive an OSHA-2H Form will immediately transmit copies through command channels to Office of the Director of Army Safety (DACS-SF), 935 1 Hall Road, Building 1456, Fort Belvoir, VA 22060-5527 and copy furnish to Commander, U.S. Army Combat Readiness/Safety Center (CSSC-PR), 5th Avenue, Building 4905, Fort Rucker, AL 36362-5363.
- **g.** Response to OSHA 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 OSHA inspections and coordination of responses. With respect to investigating Army accidents, which is solely a DoD responsibility under EO 12196, federal and state OSHA officials may be shown or provided factual portions of pertinent accident investigation reports as outlined in DA Pamphlet 385-40. Federal and state OSHA officials, upon request, may also be authorized to accompany Army accident

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investigators in an observer status. Separate, duplicate OSHA investigations of Army accidents, concurrent either with or subsequent to required Army investigations, are not expected. However, federal and state OSHA officials may inspect for residual hazardous conditions at the site of an Army accident.

INDUSTRIAL OPERATIONAL SAFETY

- **18-1. Introduction.** Industrial operations comprise activities that contribute the development, testing, procurement, deployment, and logistical support of Army equipment and weapons 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 (for example, affordability, availability, lack of training resources and/or trained personnel, etc.) The NYARNG does not currently have an Industrial Hygiene Technician assigned, however the NY SOHM shall work with the Regional Industrial Hygiene team to meet these responsibilities and duties as appropriate. These personnel shall make up the NYARNG Industrial Hygiene Program and assume all duties as assigned. The OHN, SOHM and an Industrial Hygiene (IH) Technician (when one is hired) shall all be appointed to the NYARNG Command Safety and Occupational Health Council.

18-3. Acquisition of Materials, Equipment, Facilities, and Systems.

- **a.** Acquisition of materials, equipment, facilities, and systems will comply with Chapter 9, AR 385-10, The Army Safety Program.
- **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/Inspections.** Preoperational planning will be developed and made known as part of the planning process for operations. Hazards will be identified that may impact personnel safety and operations and the measures used to eliminate or control them. Risk management will be used to identify, mitigate hazards and managed associated/residual risk associated with the activity/operation. The NYARNG Industrial Hygiene Program shall ensure all workplaces/processes are evaluated annually or as dictated under funding or personnel constraints. Written reports shall be reviewed and finalized by the regional IH prior to final report input. The NYARNG Industrial NYARNG Pamphlet 385-10, 31 March 2017, Hygiene Program shall retain, track and provide command with Risk Assessment Codes (RACs) as dictated by the inspection. Follow-up evaluations shall be completed on all operations that exceed

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the standards. The NYARNG Industrial Hygiene Program shall work with the Regional Industrial Hygiene team to load the IH Master Schedule to schedule and plan its annual surveys of all the NYARNG workplaces.

18-5. Standard Operation Procedures. (SOPs)

- a. SOPs will:
- (1) Be developed for all hazardous operations IAW requirements set forth in DA Pamphlet 385-10 and provide supervisors and operators with the level of detail necessary to execute the task/operation in an efficient, effective, and safe manner. Written standards, such as work plans, operating manuals, TMs, etc. may be substituted for SOPs when they provide the level of detail necessary to be efficient, effective and safe.
 - (2) Describe all necessary operational, safety and health-related requirements.
 - (3) Be reviewed annually or when/if a change has been made.
- **(4)** Address emergency response procedures, required PPE and other equipment necessary.
 - **b.** Supervisors will train, observe, and enforce the requirements of the SOP.
- **c.** All employees involved with the operation will read and indicate they understand the requirements of the SOP relative to their job.
- **18-6. Accident Prevention and Response Plans.** Supervisors will develop an accident prevention and response plan for areas under their direct control. These plans will:
 - **a.** Be site specific.
 - **b.** Be available for all personnel, in a common area at all times.
 - **c.** Be current with up-to-date procedures, instructions and emergency procedures.
 - **d.** Be practiced and trained with documentation of said practice/training.
- **e.** Include emergency procedures to include evacuation, fire, emergency and medical response.

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f. Identify known or suspected hazards associated with work practices and operating activities.

- **g.** Identify required administrative, engineering and/or PPE controls for work practices and operating activities.
- **18-7. Training, Licensing and Qualification**. The NYARNG Industrial Hygiene Program shall identify training requirements by reviewing workplace evaluations regularly. Supervisors will ensure that each employee has sufficient and documented training, licensure, qualification, and experience before assigning that employee to a particular job/activity. Only licensed and trained personnel are authorized to operate machinery, motor vehicles, and material handling equipment (see MSRC Appendix E, j. (Forklift powered industrial vehicles).
- **18-8. Approved for Testing.** Supervisors and operators will only use equipment and systems for the testing of Army systems and verifying the accuracy of processes. Calibration requirements will be IAW requirements established by the preventative maintenance test, measurement, and diagnostic equipment (PMDE).
- **18-9. Preoperational Walk-through.** A preoperational walk-through will be conducted for all hazardous operations to validate the SOP, provide operator training, and ensure that all hazards have been identified during all phases of normal operation and emergencies.
- **18-10.** Hazardous Material. Hazardous material will be stored according to 29 CFR 1910. 101 through 29 CFR 1910.126, Subpart H and NFPA Code 30.

18-11. Hazardous Communication.

a. Purpose. The purpose of this pamphlet is to inform employees of the physical hazards and health risks of toxic chemicals in the workplace and how to protect themselves from overexposures. Employees have the inherent right to this information so they may make more knowledgeable decisions with respect to any personal risks of their employment. This pamphlet outlines responsibilities, defines requirements, and establishes guidelines for program management:

b. Scope:

(1) This pamphlet applies to all members of the NYARNG, to include contractors working in NYARNG facilities. Contractors will abide by applicable regulations and be

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responsible for their own employees. The term facility is used generically in this pamphlet to include NYARNG units, FMS and CSMS facilities, Army Aviation Support Facilities, Warehouses, and Armory Readiness Centers. The term supervisor means commander or shop supervisor. The term employee includes traditional/M-day and Active Guard Reserve (AGR) soldiers, as well as full-time support personnel (FTSP) technicians in NYARNG facilities.

- (2) This guidance does not apply to:
 - (a) Hazardous waste when regulated by Environmental Protection Agency.
 - **(b)** Tobacco and tobacco products.
- **(c)** Wood and wood products i.e; chairs, containers, and items used within the workplace.
- (d) Food, cosmetics and other items brought into the facility for the employee's use.
- **(e)** Manufactured items (articles) which are formed to a specific shape or design during manufacture and which have end use functions dependent in whole or in part upon its shape or design during end use. For example, sealed batteries, compasses, chairs, etc. However, if the article releases or would otherwise result in exposure to a hazardous chemical under normal conditions of use, it is not exempt, but is regulated under the standard. For example, welding rods and rosin core solder are articles. However, welding fumes and rosin core solder fumes are hazardous substances that are specifically regulated by the standard.
 - (3) Supervisors and commanders will:
 - (a) Establish and implement this program at their facility/unit.
- **(b)** Conduct surveys of chemicals and prepare a Hazardous Material Inventory List for their facility. This list will be kept current with new chemicals added as they are received. The inventory sheet will be kept in front of the SDS binder.
 - **(c)** Maintain the facility's SDS binder.

(d) Ensure employee refresher training is conducted as a minimum annually and authenticated with the signature of the employee. Training must also be conducted whenever a new chemical is introduced into the work environment.

- **(e)** Ensure Personal Protection Equipment (PPE), i.e., safety glasses, face shields, gloves, foot protection, aprons, etc. are available, functional and respirators fit tested for assigned employee tasks.
 - (f) Ensure all employees have access to the SDS binder.
 - (g) Request an SDS when purchasing items that contain chemicals.
- **(h)** Ensure NYARNG Hazard Communication Program Poster is posted in every workplace. (See Appendix A).
- (i) Ensure personnel are not subject to coercion, discrimination or reprisal for exercising their rights under the Hazard Communication Program.
- (j) Furnishing on-site contractors with a copy of this program and a list of hazardous chemicals used at the facility when requested. The contractor will be responsible for informing his employees of these chemicals. The contractor will be responsible for informing the NYARNG facility/commander of any hazardous chemicals his employees will use that could cause exposure to NYARNG personnel.
 - (4) All employees/soldiers will:
 - (a) Participate in facility Hazard Communication Program.
 - **(b)** Wear Personal Protective Equipment (PPE) provided by the employer.
- **(c)** Attend training sessions concerning the Hazardous Communication Standard required by the employer.
- (d) Request supervisor's approval, prior to using any new chemical on the job.
- **(e)** Report any hazardous chemicals that are used or intended for use that do not have a SDS on file at the worksite to their immediate supervisor.

18-12. Personal Protective Equipment. (PPE)

- **a.** A job hazard analysis will be used and documented to identify the type of PPE required based on the materials and processes being used. Priority should go to the following types of jobs:
 - (1) Jobs with the highest injury or illness rates.
- (2) Jobs with the potential to cause severe or disabling injuries or illness, even if there is no history of previous accidents.
- (3) Jobs in which one simple human error could lead to a severe accident or injury.
 - (4) Newly established jobs where hazards may not be evident or anticipated.
 - (5) Jobs complex enough to require written instructions.
- **(6)** Modified jobs where changes in job procedures may have introduced new hazards.
 - (7) Infrequently performed jobs and non-routine jobs.
- **b.** The terms "job" and "task" are commonly used interchangeably to mean a specific work assignment, such as operating a grinder, using a pressurized water extinguisher, or changing a flat tire. JHAs are not suitable for jobs defined too broadly (overhauling an engine) or too narrowly (positioning car jack).
 - **c.** The four basic stages in conducting a JHA are:
 - (1) Select the job to be analyzed.
 - (2) Break the job down into a sequence of steps.
 - (3) Identify potential hazards.
 - (4) Determining preventive measures to overcome these hazards.

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(5) Employees will use PPE according to 29 CFR 1910.132 through 29 CFR 1910. 138, Subpart I, as required. PPE and training will be provided at no cost to the employee. The NYARNG Industrial Hygiene Program shall evaluate workplaces and processes to determine if workers require specific PPE.

- **18-13. Fire Protection.** Fire protection plans will be reviewed during the preoperational planning to ensure that they provide the level of protection necessary to address possible fires in the operation. The NYARNG Industrial Hygiene Program shall coordinate with DFE to ensure participation in the design review process. This review will be conducted at the 35%, 65%, and 95% gates of any new construction.
- 18-14. Materials Handling and Storage.
- **a.** Supervisors will review all operations to identify where mechanical materials handling equipment can be used to eliminate excessive and repetitive manual materials handling.
- **b.** Operators will inspect all materials handling equipment prior to the start of the operations to ensure current certification and that it meets the operation's requirements.
- **18-15. 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.
- **18-16.** 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.
- **18-17.** Lockout and/or Tag-out. The control of hazardous energy (lockout and/or tag-out) will be developed for each piece of equipment being used and provided to personnel servicing and maintaining that equipment according to 29 CFR 1910.147.

EMERGENCY PLANNING AND RESPONSE

19-1. Introduction. This chapter prescribes NYARNG 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.** RM 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, and 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 EOs, presidential directives, National Incident Management System, National Response Framework, and NY statutes will be used together with this pamphlet to formulate an organization's emergency response plan.
- **c.** In addition, the requirements of AR 525–27, 29 CFR 1910.38, and 1910.39 will be complied with.
- **d.** Emergency preparedness shall be a part of the commanders critical operations. Commanders shall receive reports of the status of emergency preparedness and associated planning as dictated by the situation. Commanders shall have adequate resources to execute these emergency plans. Command Emergency Plans shall be approved and signed by the respective commander.

19-3. Pre-accident Notification Plans.

- **a.** Commanders will establish and maintain formal pre-accident notification plans appropriate for their location, organization and specific type of operation or tactical exercise. Pre-accident plans for aviation and ground operations are prepared in accordance with AR 385-10.
 - **b.** Pre-accident notification plans will at a minimum consist of these sections.

- (1) The primary notification section outlines procedures and lists phone numbers for obtaining security, emergency medical and any other services, (electrical power company, fire department, hazardous material response teams, EOD, etc.) that may be required at the accident site. The primary focus of the primary notification plan is for obtaining a quick response from emergency support agencies to the accident location.
- (2) The secondary notification section provides instructions, points of contact, and lists phone numbers for reporting accidents through appropriate command channels to the USACRC and NGB JOC/ARNG Watch. The focus of this section is to initiate actions for investigating the accident while the accident site is relatively intact and undisturbed-for Class A or B ground accidents and class A, B, or C aviation accidents.

19-4. Recovered Chemical Warfare Material (RCWM) Response.

The RCWM emergency response activities will be conducted to protect public and worker safety and health and the environment according to 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 according to DA Pamphlet 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.

- **19-5. Biological Warfare Material Response.** Biological warfare material emergency response activities will be conducted to protect public and worker safety, health and the environment according to DA Pamphlet 385–69, applicable statutes, and implementing regulations. Safety planning; coordinating with the EPA, state, civilian authorities, responders; and community involvement will be priorities.
- **19-6. 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 according to AR 385-63, DA Pamphlet 385-10, DA Pamphlet 385-40, and DA Pamphlet 385-64, applicable statutes, and implementing regulations:
- **a.** The commander of an installation or activity first learning of an accident or incident requiring DOD emergency response will immediately notify the Army Operations Center, providing all information required in DA Pamphlet 385-10 and

DA Pamphlet 385-40 that is known at the time. The telephone numbers for the Army Operations Center are DSN 227–0218 or commercial (703) 697–0218.

b. The telephonic response will be promptly confirmed by priority and/or electronically transmitted message. The Army Operations Center electronically transmitted message address is Headquarters (MOCS–AOC), Washington, DC. This notification message will include the addresses listed in DA Pamphlet 385-10, paragraph 11-3, as information addressees.

19-7. Chemical, Biological, Radiological, Explosives, and Nuclear (CBRN) Response.

- **a.** NYARNG units and entities that may conduct CBRN defense activities will develop a written plan to safely and adequately respond to emergencies arising from catastrophic incidents. Those plans and supporting procedures will conform to the requirements of AR 385-10, Chapter 19-7, as well as the requirements stated in federal, state, and local directives.
- **b.** Reporting will be according to Chapter 3 of this pamphlet, Chapter 3 of AR 385-10, and DA Pamphlet 385-40. Further:
 - (1) For accidents involving toxic chemical agents, see AR 50–6.
- **(2)** For accidents involving radioactive, other than weapons, see DA Pamphlet 385–24.
 - (3) For accidents involving IAT, see DA Pamphlet 385–69.
 - **(4)** For all other types of accidents, see DA Pamphlet 385–40.
 - **c.** Emergency response plans will include the following:
 - (1) Pre-accident or pre-emergency planning.
 - (2) Personnel roles, lines of authority, and communications.
 - (3) Responsibilities and training requirements.
 - (4) Emergency alerting and response procedures.
 - (5) PPE and emergency equipment.

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- (6) Decontamination procedures.
- (7) Evacuation routes, procedures, and assembly points.
- (8) Procedures to account for service members.
- (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.

INFECTIOUS AGENTS AND TOXINS

The NYARNG does not have any fixed laboratories that meet the requirements, criteria and/or definition of Biosafety Level (BSL) laboratory. For specific information, please contact NGB J-39 at (703) 607-5386.

20-1. Introduction.

- **a.** This chapter prescribes NYARNG safety policy and processes for the NYARNG biological defense safety function should one exist. NYARNG 2nd and 24th CST (WMD) are the only entities within the current NYARNG structure with any biological safety responsibilities. Both CSTs (WMD) employ a mobile laboratory and 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. All activities will be conducted IAW AR 385-10, Chapter 20.
- **b.** Any entity within the NYARNG that ever has a biological defense safety responsibility shall incorporate the requirements of AR 385-10 and associated pamphlets adapted for the Army HQ mission, functions and structure. All biological activities shall be conducted using Risk Management and risk assessment functions to mitigate the risk to the lowest possible level.
- **c.** If another military organization conducts biological operations as a tenant to our installations, the other organization shall coordinate their biological safety program with the commander and comply with this pamphlet.

20-2. Inspection, Training, PPE.

a. All biological activities shall be inspected IAW AR 385-10 and DA Pamphlet 385-69. If any major subordinate commands have a biological safety responsibility within the NYARNG, they shall adhere to this pamphlet and develop their own pamphlet which shall have a section addressing biological safety and biological occupational health element. Pamphlet's are required for every biological operation using IAT, and shall be based on the activities risk assessment and readily available.

b. All personnel within the NYARNG who work directly or have potential for exposure to etiologic agents will receive training IAW AR 385-10, Chapter 10 and DA Pamphlet 385-69.

c. Properly approved PPE shall be used for all biological activities IAW AR 385-10, paragraph 20-7(a-d).

20-3. Coordination.

- **a.** NYARNG entities with a biological safety responsibility shall ensure that a continuing maintenance plan shall be in place for every lab facility and address the requirements of AR 385-10, paragraph 20-11.
- **b.** Contracting officers shall apply biological safety clauses IAW AR 385-10, paragraph 20-15 when appropriate.
- **c.** Whenever NYARNG personnel transport 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. Transport, handling, use and disposal of IAT's shall be conducted in a manner that will not adversely affect the safety and health of individuals, community and environment. Workers and support personnel that are designated or granted approval of facility access during IAT operations are identified and their health risk assessment is reviewed. All testing employing IAT shall be conducted in appropriate BSL laboratories, chambers, or other facilities using the least hazardous IAT consistent with mission objectives.
- **d.** If a biological situation exists, the NYARNG shall only employ a minimum number of appropriately qualified and trained personnel to engage in the activity for the shortest period of time and minimum amount of material.
- **e.** New construction or any modifications of government biological facilities are reviewed by the biosafety officer and or JFHQs Safety and Occupational Health professionals IAW DA Pamphlet 385-69. Prior to initial use, containment (BSL-3) and max containment (BSL-4) laboratories are validated for safe operation through a commissioning survey by an approved organization. Prior to the start of operations at new BSL-2 facilities a pre-operational survey is led, completed, and approved by the Army HQ IAW AR 385-10 and DA Pamphlet 385-69.
- **f.** Prior to the start of biological operations a new or majorly modified BSL-3 or BSL-4 facility shall undergo a pre-operational survey and approved by the ODASAF.

CHEMICAL AGENT SAFETY MANAGEMENT

21-1. Introduction.

- **a.** This chapter applies to blister agents H (Levinstein mustard), HD (Distilled mustard), HT (mustard T-mixture), and L (Lewisite) and to nerve agents GA (Tabun), GB (Sarin), GD (Soman), GF (Cyclosarin), and VX (O-ethyl S-(2-Disopropylaminoethyl) methylphosphonothiolate
- **b.** DA Pamphlet 385–61 contains technical SOH requirements for management and control processes for operations involving chemical agents. DA Pamphlet 385-61 is not mandatory for tactical military operations, but should be used as a guide.
- **c**. When the M40 series chemical biological protective masks are used, the special requirements in DA Pamphlet 385-61, paragraph 4-5 shall be adhered to.
- **d.** All chemical agent activities shall comply with the mishap risk management process defined in local SOP and DA Pamphlet 385-61, paragraph 6-6, and 6-7.
- **21-2. Applicability.** NYARNG 2nd and 24th CST (WMD) are the only entities within the current NYARNG structure with a specific chemical safety responsibility. This chapter applies to both CSTs (WMD) and any other entity within the NYARNG that assumes responsibility regarding chemical safety. This chapter applies during peacetime, wartime, contingency operations, training, exercises, and RDT&E.
- **21-3. Coordination.** This chapter prescribes NYARNG safety policy and processes for the NYARNG chemical agent safety coordination.
- **a.** Any entity within the NYARNG that assumes a chemical responsibility shall incorporate requirements from AR 385-10 and associated pamphlets adapted for the Army headquarters. All key chemical agent safety elements listed within AR 385-10, paragraph 21-4 shall be addressed in the units SOP.
- **b.** All users of PPCE, chemical agent monitoring, detection equipment, and other equipment associated with chemical agents shall be properly trained. All chemical

agent PPPCE shall either be type-classified with specific intent including non-battlefield use, NATO approved, NFPA/NIOSH certified CBRN, or approved by ODASAF. This PPCE shall only be used in approved use scenarios. All type classified, NATO, or NFPA/NIOSH (CBRN) PCE in an operational setting shall be approved by ODSAF or NFPA/NIOSH (CBRN) certification. All PPCE, chemical agent monitoring, detection equipment and other equipment associated with chemical agent operations shall be used, inspected, tested and maintained IAW applicable TMs and FMs.

- **c.** In the event of an excursion of chemical agents above the WPL in areas where excursions are not expected, actions shall be taken IAW DA Pamphlet 386-61, paragraph 3-5.
- **d.** All organizations shall request PCE approval in accordance with DA Pamphlet 385-61, paragraph 1-7(a) and 17(b). Chemical agent workers shall be provided PCE to protect against chemical agent exposure IAW the requirements of DA Pamphlet 385-61, paragraph 4-3. A heat stress plan shall be established for chemical PPCE and be based upon approved guidance.
- **e.** Safety features shall be required in the design and construction of operating agent facilities and equipment in accordance with DA Pamphlet 386-61, paragraph 6-2 whenever applicable.
- **f.** A pre-operational safety survey shall be conducted when Chemical Site Plans (CSP) and Chemical Safety Submissions (CSS) are required.
- **g.** An effective monitoring plan meeting the requirements of DA Pamphlet 385-61, section 3 shall be developed for chemical agent facilities/operations to limit employee workplace exposure.
- **h.** Quality assurance plans for monitoring shall be developed and based on guidance established by an approved agency and reviewed annually.
- **i.** Operations that require respiratory protection shall have a program that establishes the selection, use, inspection, training, fit testing and maintenance IAW 29 CFR 1910.134 and AR 11-34.
- **j.** An equipment decontamination plan and/or WPL monitoring plan shall be developed IAW DA Pamphlet 385-61, paragraph 5-7 and approved for releasing tools, supplies, equipment, and facilities to the public.

- **k.** Chemical agent containment shall comply with requirements listed in DA Pamphlet 385-61, paragraph 6-3.
- I. Each Chemical laboratory shall develop and implement a chemical hygiene plan IAW 29 CFR 1910.1450 and reviewed annually by SOH and IH.
- **m.** All chemical agent laboratories within the NYARNG shall comply with facility requirements IAW DA Pamphlet 385-61, paragraph 8-7. These laboratories shall comply with containment, storage, ventilation and agent monitoring requirements of DA Pamphlet 385-61, paragraph 8-1 through 8-4.

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CHAPTER 22

MARINE ACTIVITIES

- **22-1. Water Operations.** If the NYARNG conducts water operations, operators will follow U.S. Coast Guard (USCG) and/or the U.S. Army Corp of Engineers (USACE) guidance to operate safely non-tactical vessels and watercraft.
- **22-2.** Civil Work Marine Activities. The NYARNG does not have any watercraft, engineer-peculiar equipment, and operations under jurisdiction of the USACE at the time of this publication.
- **22-3. Operator Qualification.** Operators of non-tactical Army vessels will be licensed according to AR 600-55 and, where applicable, by the USCG and/or USACE EM 385-1-1 for the specific type of vessel or equipment.

22-4. Protective Equipment.

- **a.** Personnel aboard non-tactical vessels or working on/over water will wear personal flotation devices (PFD) as prescribed by the USCG, OSHA, and/or the USACE guidance found in 46 CFR, 29 CFR, and EM 385-1-1 respectively.
- **b.** Throw-able devices (ring buoys, life rings, and so forth) will be provided on all vessels according to the USCG and EM 385–1–1, Section 5.
- **c.** If the NYARNG ever owns or operates any vessels, this equipment shall be maintained in a seaworthy state, equipped IAW original design, USCG regulations, and USACE requirements. This watercraft and engineer-peculiar equipment and operations under their jurisdiction shall meet the requirements of EM 385-1-1; ER 385-1-91 and EP 1130-2-500. The design of such vessels, plant and equipment shall be of design accepted by the USACE Marine Design Center.
- **d.** If any situation warrants the need for tactical water operations of NYARNG personnel, commanders shall dictate the use of personal flotation devices in writing.
- **22-5. Inspections.** Qualified personnel will inspect all vessels at least annually for seaworthiness and safe operating condition. Periodic inspections and tests will assure that a safe operating condition is maintained.

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22-6. Pre-accident/Pre-emergency Planning. Prior to any vessel deployment, plans will be prepared for response to marine emergencies such as fire, sinking, flooding, severe weather, man overboard, and HAZMAT incidents as outlined by the USCG guidance and/or USACE EM 385-1-1, Section 19. Drills and exercises of these plans will be conducted as stated in the guidance.

MEDICAL SAFETY

- **23-1. Medical Treatment Facilities or Dental Treatment Facilities.** The NYARNG does not have any medical treatment facilities or dental treatment facilities. However, Medical Readiness Weekends (MRWs) are conducted on a routine basis and staffed by NYARNG Medical Command (MEDCOM) members and medical contractors. To that end, these medical military members must be trained/MOSQ for their position/duty.
- **23-2. Training.** The training should include specific hazard recognition and control measures and they will be instructed by their supervisors as to the hazards inherent in their jobs and workplaces, and to the safety rules pertaining to their specific duties.
- **23-3. Safety Policy.** MEDCOM shall establish a written Safety policy and a Bio Medical Hazard program. All operations of MEDCOM shall comply with the NYARNG Safety program. The NYARNG SOH Office shall work with MEDCOM to establish safety training, staff training, and fire training annually.
- **23-4.** Educational Programs. The SOH Office shall also assist MEDCOM in establishing staff educational programs developed with specific areas, job hazards, and activities. MEDCOM shall maintain a hazard surveillance log and develop an abatement plan for all hazards that cannot be abated within 30 days of identification. The NYARNG Command Safety and Occupational Health council shall be briefed on all abatement activities as appropriate.

FACILITY REUSE AND CLOSURE

24-1. Policy for Preparing for Closure or Reuse of Land. 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. A decommissioning plan will identify any hazardous sites or waste, including chemicals or explosives (radiological and biological) that may be present. Facility history and past mission(s) of the facility will serve as guides during development of the decommissioning program plan. When facilities or areas undergo remediation, complete records of the actions involving cleanup of HAZMAT will be added to the record files. During operations, the NYARNG SOH Office shall have a process to collect and maintain records of hazard locations and information for all hazardous materials used and stored. If any subcommands execute munition responses, the command shall ensure that a detailed after action review is reported through USATCES to DDESB. All munition response and RCWM response actions, and the disposition of ammunition, explosives and RCWM, are accomplished IAW a DDESB approved Site Plan. When closing or reusing portions of an installation, the prior use of the land and associated hazards shall be determined and factored into the reuse or closure of risk assessment.

24-2. Closure Requirements.

- **a.** Nuclear Regulatory Commission tests. CECOM will coordinate the decommissioning of specific locations on the installation where licensed radioactive materials were used or stored. CECOM is responsible for coordinating radiation surveys, historical site assessments, and final closeout documents with the NYARNG state radiation safety officer.
- **b.** Environmental Protection Agency sampling. Sampling according to 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.

24-3. Munitions and Explosives of Concern. (MEC)

- **a.** Munitions and explosives of concerned 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 according to DA Pamphlet 385-64.
- **b.** Disposition of ammunition, explosives, and propellants will be done according to the NYARNG DDESB-approved site plan.
- **c.** Burying or dumping ammunition, explosives, or propellants is not an approved method of disposal.
- **24-4.** Recovered Chemical Warfare Material. The NYARNG does not have any facilities where RCWM was (or where it was suspected to have been) manufactured, tested, stored, deployed, or disposed. Recovered substances not meeting the definition of RCWM will be considered and treated as industrial chemicals CFR 1910.120, 40 CFR 260 through 40 CFR 279, and/or 40 CFR 300, and where applicable, equivalent State of NY regulations. Any unplanned discovery of actual or suspected chemical warfare material shall be reported by the site custodian per chemical event reporting procedures specified in AR 50-6, Chapter 11.
- **24-5. Contaminated Structures**. The NYARNG does not have any 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. Should such operations be determined to have occurred, DA or DoD will sample, assess, mitigate, clear, and archive actions taken to correct hazardous conditions according to DoD 6055.09-STD, DA Pamphlet 385-24, DA Pamphlet 385-61, and DA Pamphlet 385-64. All potentially radiologically contaminated sites shall be tested and the results included and tracked in the decommissioning plan.

ELECTRICAL SAFETY PROGRAM

25-1. Introduction. This chapter prescribes policy for integrating federal regulations in electrical safety standards as well as worldwide electrical safety consensus standards, techniques, and procedures in NYARNG systems and operations to mitigate risk of electrical related injuries and deaths. More specific electrical safety guidance, procedures, and techniques to protect Army/Air/DEMA personnel, facilities, and equipment against electrical hazards are addressed in 29 CFR 1910 Subpart S; AR 385-10, Chapter 25; DA Pamphlet 385-26; Engineer Manual 385-1-1; Unified Facilities Criteria (UFC) 4–021–01; Technical Bulletin (TB) 385–4; UFC 3–560–01; National Fire Protection Association (NFPA) 70 (National Electric Code® (NEC)); and NFPA 70E, as applicable. Commanders, directors, and managers at each echelon shall include electrical safety in SOH policies and training that emphasizes prevention of electrical related accidents.

25-2. Policy.

- **a.** Electrical hazards will be mitigated to the lowest possible risk level in all operations including all NYARNG work sites, recreational areas, office areas, training areas, construction zones, contingency operations, range facilities, vehicle operations, storage facilities, etc.
- **b.** Evaluation of elements of electrical risk will be included in risk assessments, job safety analyses, safety inspections, as appropriate. SOPs shall be established for those frequently performed hazardous electrical operations identified through job safety analyses/job hazard analysis IAW AR 385-10.
- **c.** Leaders will ensure that electrical safety requirements and RM are applied to mitigate electrical-related hazards and training that emphasizes prevention of electrical related accidents in their organization is conducted. All leaders within the NYARNG shall ensure electrical safety requirements and RM is applied to mitigate electrical related hazards. Approved RM worksheets with JHA is required and shall be conducted in all electrical related operations within the NYARNG.
- **d.** Supervisors of electrical-related operations will ensure that standard electrical safety operating procedures are developed, implemented, followed and all personnel working in electrical-related operations are appropriately trained IAW DA Pamphlet 385-26, Chapter 1.

- **e.** Applicable Army, DoD, federal, national, and worldwide electrical safety consensus standards will be appropriately integrated into all electrical-related operations, to include construction, maintenance, and service construction.
- **f.** The person in charge shall conduct a job safety briefing with the personnel **p**erforming the work involving access to energized parts.
- **g.** The NYARNG SOH Office shall conduct safety evaluations of subordinate organizations to ensure supervisors of electrical related operations enforce SOPs that are developed and all personnel working in electrical related operations are trained. These evaluations shall ensure that when electrical work is being conducted an energized electrical work permit shall be acquired for energized electrical conductors/circuits parts greater than or equal to 50V. IAW NFPA 70E, the NYARNG SOH Office shall ensure an electrical hazard analysis (EHA) is conducted by qualified supervisors of operations where electrical work is conducted on facility electrical distribution systems or electrical equipment/devices.
- **h.** Personnel shall be made aware of electrical hazards in their environment and how to recognize electrical hazards and further protect themselves from identified electrical hazards through training and educating the force.

25-3. Training.

- **a.** All NYARNG personnel will be given initial training on general electrical safety-how to recognize electrical hazards, how to respond to an electrical emergency and made aware of electrical hazards specific to their workplace. Supervisors shall maintain records of training. Training will be documented and updated annually or when hazards or processes in the workplace change. Supervisors shall ensure their employees training is tailored to the hazards of the employees work environment.
- **b.** In addition personnel will also receive training for the following equipment commonly found in the workplace:
 - (1) Adapters.
 - (2) Extension cords.
 - (3) Electrical Receptacles.

- (4) Ground Fault Circuit Interrupters.
- (5) Relocatable Power Taps (Power Strips).
- (6) Portable Electric Heaters.
- (7) Power Lines.
- **c.** Personnel will receive additional training or retraining under any of the following conditions or as determined by the supervisor:
 - (1) Observation or indication of improper work practices.
 - (2) Changes in technology, equipment, or working environment.
 - (3) Introduction of new procedures.

RANGE OPERATIONS

- **26-1. General.** Commanders will ensure safety briefings/critiques are conducted before, during and after all training activities involving ammunition and explosives. Review and approval procedures for conducting RM for Range Operations shall be conducted IAW established doctrine.
- **a.** NYARNG personnel will comply with policy and safety procedures for firing, storage and transportation of ammunition and explosives IAW AR/DA Pamphlet/NGR 385-63, DA Pamphlet 385 64, DoDI 6055.09-M, DOT, EPA, and any other local requirements.
- **b.** The commander will designate an officer in charge (OIC) (commissioned officer, warrant officer (WO)) or noncommissioned officer (NCO) for each firing point or range to be responsible for the safe conduct of firing and proper use of facilities. A commissioned, warrant or noncommissioned officer from the training or firing unit chain of command may be an OIC or range safety officer (RSO) IAW DA Pamphlet 385-63, Table 1-1 and local installation/post regulations. OICs and RSOs will be trained using the range certification program IAW DA Pamphlet 385-63, local range personnel, and are certified by the battalion commander.
- **c.** The State SOH Office shall work with the training sites command to ensure that range safety certification programs shall be used to train and qualify personnel in the duties of officer-in-charge (OIC) and range safety officer (RSO) for firing exercises and maneuver operations. This range safety certification program shall be integrated into organizational training.
- **d.** Range control officers shall provide personnel designated as OICs and RSOs a range safety briefing on the use of the training complex as part of the certification.
- **e.** Persons in charge of, or using ranges, maneuver areas, and training facilities are responsible for compliance with the safety requirements of AR 385-63 and applicable TMs and FMs.
- **f.** Hearing protection devices and eye protection shall be issued and utilized on all ranges.
- **g.** During all live-fire training activities by NYARNG personnel or on NYARNG installations, the RSO and local range SOH Office are responsible for ensuring the

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proper use of Special Use Airspace (SUA)/small arms range Safety Area (SARSA) and airspace outside SUA/SARSA IAW local rage safety SOPs.

- **h.** Following new construction, modification or renovation, the NYARNG SOH Office shall ensure final acceptance surveys are conducted on all firing ranges, weapons training facilities and related structures.
- i. The NYARNG SOH Office shall ensure accomplishment of maintenance of a central register of deviations from the standards of AR 385-63 and DA Pamphlet 385-63 within the command.
- **j.** The NYARNG SOH Office shall complete appropriate actions including closure if necessary to control hazards on ranges determined to be unsafe. The NYARNG SOH Office shall review design plans including support structures and facilities to ensure safety requirements are adequately addressed prior to new construction, modification or renovation of firing ranges.
- **k.** Unauthorized persons are prohibited from entering impact areas and other areas known or suspected to contain UXOs by use of positive controls to include fencing and/or posting of UXO hazard warning signs.
- **26-2. Training with Live Demolitions.** Procedures for handling and detonating explosives, mines, and firing devices used by troops in training will be IAW DA Pamphlet 385-63, Chapter 15.

26-3. Firing Blank Ammunition.

- **a.** The following precautions will be observed during the use of blank ammunition:
- (1) The blank firing attachment (BFA) is a necessary component for operational safety. Weapon systems for which approved BFA are manufactured will not be fired without the proper BFA. The distance at which weapons can be safely fired at unprotected troops without causing injury is somewhat reduced with the BFA. However, the 5-meter, safe-separation distance (SSD) will not be reduced. This distance, with a dispersion angle of 10 degrees left and right of the GTL, does not exclude possible injury to the unprotected eye. Hearing protection will be worn while firing blank ammunition.
- **(2)** Army-issue combat uniforms offer skin protection and should be worn at all times. Eye protection shall be worn by the firer.

b. A violation of the SSD could result in serious injury. If the SSD is decreased to within 0.9 meters, fatal injuries may occur.

- **c.** No personnel will have live ammunition in their possession while firing blank ammunition.
 - **d.** The use of blank ammunition during hand-to-hand training is prohibited.
- **26-4. Firing Simulators and Pyrotechnics**. Procedures for handling simulators and pyrotechnics by troops in training will be IAW DA Pamphlet 385-63 and local installation/post regulations. Before using simulators and pyrotechnics, all personnel will be instructed on their use and safety precautions.
- **a.** The safe distance between all ground blast simulators and personnel will be a minimum of thirty (30) feet.
- **b.** The safe distance between all pyrotechnic ground flares and personnel will be a minimum of six (6) feet.
- **c.** Star clusters and any other rocket propulsion signaling devices will never be pointed in the general direction of personnel or equipment.
- **d.** Personnel will be specifically instructed to never pick up or handle simulators or pyrotechnic devices which have misfired. They will be marked and Range Control will be notified.
 - e. Pyrotechnics will not be used during any public performance events.
 - **f.** Use of fireworks as a substitute for pyrotechnics is prohibited.
- **26-5. Smoke Hand Grenades and Smoke Pots.** Procedures for handling smoke hand grenades and smoke pots used by troops in training will be IAW DA Pamphlet 385-63, Chapter 13 and local installation/post regulations.
- **a. Hand Smoke Grenades**. Personnel must maintain a safe distance from the point of impact. When the safety pin has been removed from a smoke grenade, the pin will not be replaced in an attempt to render the grenade in a safe condition. If possible, the smoke hand grenade should be placed into a shallow hole to reduce the possibility of igniting dry grass or leaves.

- **b. Smoke Pots.** To prevent facial powder burns, the person firing must never allow their face to be over the top of the smoke pot while igniting the striker. An area free from ignitable material shall be selected for firing to eliminate the possibility of range fires.
- **26-6. Small Arms and Machine Guns.** Procedures for conducting and handling small arms and machine gun firing by troops in training will be IAW DA Pamphlet 385-63, Chapter 4, and local installation/post regulations.
- **a.** All personnel and weapons will be thoroughly inspected by range safety personnel after the completion of each firing to assure that live ammunition is not in the possession of unauthorized personnel, and that the weapon has been cleared either by clearing procedures in a clearing barrel or by means of running a rod down the barrel. At no time will a weapon's cleaning rod be used to perform the task of clearing a weapon. A solid brass/copper welding rod is recommend to conduct weapon clearing procedures.
- **b.** If the tactical nature of a problem is such that troops must move from one firing position to another with loaded weapons, they are to be carried with the muzzle in a safe direction, away from other personnel, the selector switch on SAFE and the weapon handler's finger removed from the trigger.
- **c.** The firing of the MK-19 weapon requires additional PPE and safety measures. Requirements can be found in the weapon's-10 TM.
- **26-7. Outdoor Firing Range Operations.** Outdoor firing ranges used by the NYARNG, to include private and civilian ranges, will meet all requirements of AR/NGR 385-63.

APPENDIX A

REFERENCES

Required Publications

Unless otherwise stated, all publications are available at http://www.apd.army.mil/.

A-1. AR 385-10

Army Safety Program

A-2. AR 385-63

Range Safety

A-3. AR 525-27

Army Emergency Management Program

A-4. DA Pam 385-1

Small Unit Safety Officer/NCO Guide

A-5. DA Pam 385-10

Army Safety Program

A-6. DA Pam 385-11

Army Guidelines Safety Color Codes, Signs, Tags and Markings

A-7. DA Pam 385-16

System Safety Management Guide

A-8. DA Pam 385-24

Army Radiation Safety Program

A-9. DA Pam 385-25

Occupational Dosimetry and Dose Recording for Exposure to Ionizing Radiation

A-10. DA Pam 385-26

Army Electrical Safety Program

A-11. DA Pam 385-30

Risk Management

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A-12. DA Pam 385-40

Army Accident Investigations and Reporting

A-13. DA Pam 385-61

Toxic Chemical Agent Safety Standards

A-14. DA Pam 385-64

Ammunition and Explosives Safety Standards

A-15 DA Pam 385-63

Range Safety

A-16. DA Pam 385-65

Explosives and Chemical Site Plan Development and Submission

A-17. DA Pam 385-69

Safety Standards for Microbiological and Biomedical Laboratories

A-18. DA Pam 385-90

Army Aviation Accident Prevention Program

Section II

Related Publications

A related publication is a source of additional information. The user does not have to read a related reference to understand this publication. Unless otherwise stated, all publications are available at: http://www.apd.army.mil/. Executive orders and the Federal Register are available at: http://www.gpo.gov/fdsys/. United States Code (USC) is available at http://wscode.house.gov/.

A-19. AR 11-2

Managers' Internal Control Program

A-20. AR 11-34

The Army Respiratory Protection Program

A-21. AR 15-1

Committee Management

A-22. AR 15-6

Procedures for Investigating Officers and Boards of Officers

A-23. AR 20-1

Inspector General Activities and Procedures

A-24. AR 25-30

The Army Publishing Program

A-25. AR 27-20

Claims

A-26. AR 40-5

Preventive Medicine

A-27. AR 40-8

Temporary Flying Restrictions Due to Exogenous Factors Affecting Aircrew Efficiency

A-28. AR 40-10

Health Hazard Assessment Program in Support of the Army Acquisition Process

A-29. AR 40-13

Radiological Advisory Medical Teams

A-30. AR 40-21

Medical Aspects of Army Aircraft Accident Investigation

A-31. AR 40-66

Medical Record Administration and Health Care Documentation

A-32. AR 40-400

Patient Administration

A-33. AR 40-501

Standards of Medical Fitness

A-34. AR 50-5

Nuclear Surety

A-35. AR 50-6

Chemical Surety

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A-36. AR 50-7

Army Reactor Program

A-37. AR 58-1

Management, Acquisition, and Use of Motor Vehicles

A-38. AR 70-1

Army Acquisition Policy

A-39. AR 70-62

Airworthiness Qualification of Aircraft Systems

A-40. AR 73-1

Test and Evaluation Policy

A-41. AR 75-1

Malfunctions Involving Ammunition and Explosives

A-42. AR 95-1

Flight Regulations

A-43. AR 95-30

Participation in a Military or Civil Aircraft Accident Safety Investigation

A-44. AR 190-5

Motor Vehicle Traffic Supervision

A-45. AR 190-11

Physical Security of Arms, Ammunition, and Explosives

A-46. AR 190-30

Military Police Investigation

A-47. AR 200-1

Environmental Protection and Enhancement

A-48. AR 210-20

Real Property Master Planning for Army Installations

A-49. AR 350-1

Army Training and Leader Development

A-50. AR 350-19

The Army Sustainable Range Program

A-51. AR 360-1

The Army Public Affairs Program

A-52. AR 600-3

The Army Personnel Development System

A-53. AR 600-20

Army Command Policy

A-54. AR 600-55

The Army Driver and Operator Standardization Program (Selection, Training, Testing, and Licensing)

A-55. AR 600-105

Aviation Service of Rated Army Officers

A-56. AR 608-1

Army Community Service

A-57. AR 690-11

Use and Management of Civilian Personnel in Support of Military Contingency Operations

A-58. AR 690-950

Career Management

A-59. AR 700-13

Worldwide Ammunition Logistics/Explosive Safety Review and Technical Assistance Program

A-60. AR 740-1

Storage and Supply Activity Operations

A-61. AR 750-1

Army Materiel Maintenance Policy

A-62. AR 750-6

Army Equipment Safety and Maintenance Notification System

A-63. AR 750-10

Army Modification Program

A-64. AR 750-43

Army Test, Measurement, and Diagnostic Equipment

A-65. DA Pam 25-40

Army Publishing: Action Officers Guide

A-66. DA Pam 40-8

Occupational Health Guidelines for the Evaluation and Control of Occupational Exposure to Nerve Agents GA, GB, GD, and VX.

A-67. DA Pam 40-11

Preventive Medicine

A-68. DA Pam 40-173

Occupational Health Guidelines for the Evaluation and Control of Occupational Exposure to Mustard Agents H, HD, and HT.

A-69. DA Pam 40-501

Hearing Conservation Program.

A-70. DA Pam 40-503

Industrial Hygiene Program.

A-71. DA Pam 40-506

The Army Vision Conservation and Readiness Program.

A-72. DA Pam 50-5

Nuclear Accident or Incident Response and Assistance (NAIRA) Operations.

A-73. DA Pam 690-47

DA Civilian Employee Deployment Guide.

A-74. DA Pam 738-751

Functional User's Manual for the Army Maintenance Management System-Aviation (TAMMS–A).

A-75. DA Pam 750-8

The Army Maintenance Management System (TAMMS) User's Manual.

A-76. ACGIH TLV(r)/BEI(r)

American Conference of Government Industrial Hygienists Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices Available for purchase at http://www.acgih.org.

A-77. ANSI C2

National Electric Safety Code.

A-78. ANSI N13.30

Performance Criteria for Radio bioassay.

A-79. ANSIZ136

Safe Use of Lasers.

A-80. ANSI/ISEA Z87.1 (2010)

Occupational and Educational Personal Eye and Face Protection Devices.

A-81. ANSI/NETA ATS - 2009

Standard for Acceptance Testing Specifications for Electrical Power Distribution Equipment and Systems.

A-82. ANSI/NETA MTS-2011

Standard for Maintenance Testing Specifications for Electrical Power Distribution Equipment and Systems.

A-83. ATP 4-15

Army Water Transport Operations.

A-84. ATP 4-16

Movement Control.

A-85. ATP 5-19

Risk Management.

A-86. DoD 4500.36-R

Dangerous Goods Regulations, 4th Edition.

A-87. DoD 3222.3

DoD Electromagnetic Environmental Effects (E3) Program.

A-88. DoDD 3025.21

Defense Support of Civilian Law Enforcement Agencies.

A-89. DoDI 5000.02

Operation of the Defense Acquisition System.

A-90. DoDI 6055.01

DoD Safety and Occupational Health (SOH) Program.

A-91. DoDI 6055.04

DoD Traffic Safety Program.

A-92. DoDI 6055.07

Mishap Notification, Investigation, Reporting, and Record Keeping.

A-93. DoDI 6055.08

Occupational Ionizing Radiation Protection Program.

A-94. DoDD 6055.09M

Explosives Safety Management and the DOD Explosives Safety Board.

A-95. DoDI 6055.11

Protecting Personnel from Electromagnetic Fields.

A-96. DoDI 6055.15

DoD Laser Protection Program.

A-97. DoODI 6490.03

Deployment Health.

A-98. DoDI 7230.08

Leases and Demonstrations of DoD Equipment of PCS

A-99. DTR 4500.9-R, Part II

Cargo Movement.

A-100. EM 385-1-1

Safety and Health Requirements.

A-101. EO 12196

Occupational Safety and Health Programs for Federal Employees.

A-102. FAR 52.236-13

Accident Prevention.

A-103. FM 3-35

Army Deployment and Redeployment.

A-104. FM 4-01.45

Multi-Service Tactics, Techniques, and Procedures for Tactical Convoy Operations.

A-105. MIL-HDBK-828B

Department of Defense Laser Range Safety on Ranges and in Other Outdoor.

A-106. MIL-STD-1180B (1), Change Notice 1

Safety Standards for Military Ground

A-107. NFPA 30

Flammable and Combustible Liquids Code.

A-108. NFPA 70

National Electrical Code(r)

A-109. NFPA 70B

Recommended Practice for Electrical Equipment Maintenance.

A-110. NFPA 70 E

Standard for Electrical Safety in the Workplace.

A-111. NFPA 101

Life Safety Code.

A-112. PL 91-596

Occupational Safety and Health Act of 1970, amended 5 November 1990.

A-113. PL 93-288, as amended, 42 USC 5121-5207

Robert T. Stafford Disaster Relief and Emergency Assistance Act.

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A-114. TB 9-639

Passenger-Carrying Capacity of Tactical and Administrative Vehicles commonly used to Transport Personnel.

A-115. TB 43-0108

Handling, Storage, and Disposal of Army Aircraft Components Containing Radioactive Materials.

A-116. TB 700-2

Department of Defense Ammunition and Explosives Hazard Classification Procedures.

A-117. TB 750-25

Maintenance of Supplies and Equipment: Army Test, Measurement and Diagnostic Equipment (TMDE) Calibration and Repair Support (C&RS) Program.

A-118. TB Med 524

Control of Hazards to Health from Laser Radiation.

A-119. TC 21-305-20

Manual for the Wheeled Vehicle Operator.

A-120. TC 21-306

Tracked Combat Vehicle Driver Training.

A-121. TM 5-1300

Structures to Resist the Effects of Accidental Explosions.

A-122. TM 38-410

Storage and Handling of Hazardous Material Technical Paper 15 (TP-15), Approved Protective Construction.

A-123. TM 55-2200-001-12

Transportability Guidance: Application of Blocking, Bracing, and Tie down Materials for Rail Transport.

A-124. 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.

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A-125. Unified Facilities Criteria (UFC) 3-560-01

Electrical Safety, O&M.

A-126. Unified Facilities Guide Specifications 01525

Safety and Occupational Health Requirements.

A-127. UCMJ, Article 92

Failure to obey order or regulation.

A-128. 29 CFR 1904

Recording and Reporting Occupational Injuries and Illnesses.

A-129. 29 CFR 1910

Occupational Safety and Health Standards.

A-130. 29 CFR 1926

Safety and Health Regulations for Construction.

A-131. 29 CFR 1960

Basic Program Elements for Federal Employee Occupational Safety and Health Programs and Related Matters.

A-132. 32 CFR

National Defense.

A-133. 40 CFR

Protection of Environment.

A-134. 42 CFR

Public Health.

A-135. 46 CFR

Shipping.

A-136. 49 CFR

Transportation.

A-137. 5 USC Chapter 81

Compensation for Work Injuries.

A-138, 10 USC

Armed Forces.

A-139. 49 USC

Transportation.

Prescribed Forms

Unless otherwise indicated, DA forms are available on the Army Publishing Directorate Web Site www.apd.army.mil. and SFs are available on the U.S. General Services Administration Web site www.gsa.gov

A-140. DA Form 2696

Operational Hazard Report.

A-141. DA Form 7305

Worksheet for Telephonic Notification of Aviation Accident/Incident.

A-142. DA Form 7306

Worksheet for Telephonic Notification of Ground Accident.

A-143. SF 91

Motor Vehicle Accident Report (Prescribed in para 3-8.)

Referenced Forms

Unless otherwise indicated, DA forms are available on the Army Publishing Directorate Web site (www.apd.army.mil); DD forms are available on the Office of the Secretary of Defense Web site www.dtic.mil/whs/directives/infomtg/forms/index.htm); and SFs are available on the U.S. General Services Administration Web site www.gsa.gov.

A-144. DA Form 11-2

Internal Control Evaluation Certification.

A-145. DA Form 1119-1

Certification of Achievement in Safety.

A-146. DA Form 2028

Recommended Changes to Publications and Blank Forms.

A-147. DA Form 2397-AB

Abbreviated Aviation Accident Report (AAAR) for All Class C, D, E, F, Combat A and B, and all Aircraft Ground.

A-148. DA Form 285-AB

Abbreviated Ground Accident Report for Class C, D, E and R ground mishaps.

A-149. DA Form 4753

Notice of Unsafe or Unhealthful Working Condition.

A-150. DA Form 4754

Violation Inventory Log.

A-151. DA Form 4755

Employee Report of Alleged Unsafe or Unhealthful Working Conditions.

A-152. DA Form 5984-E

Operator's Permit Record.

A-153. DA Form 7305R

Telephonic Notification of Aviation Accident/Incident.

A-154. DA Form 7306R

Worksheet for Telephonic Notification of Ground Accident.

A-155. DA Form 7632

Certificate of Risk Acceptance.

A-156. DD Form 836

Dangerous Goods Shipping Paper/Declaration and Emergency Response Information for Hazardous Materials Transported by Government Vehicles.

A-157. DD Form 2272

Department of Defense Safety and Occupational Health Protection Program.

A-158. DD Form 2977

Deliberate Risk Assessment Worksheet.

A-159. OF 346

U.S. Government Motor Vehicle Operator's Identification Card.

A-160. OSHA Form 300

Log of Work-Related Injuries and Illnesses.

A-161. OSHA Form 300A

Summary of Work-Related Injuries and Illnesses.

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A-162. OSHA Form 301 Injury and Illness Incident Report.

A-163. NRC Form 3 Notice to Employees.

APPENDIX B

ADDITIONAL RESOURCES

- B-1. International Civil Aviation Organization available at http://www.icao.int.
- **B-2.** Leader available at https://safety.army.mil.
- **B-3.** The Joint Commission available at http://www.jointcommission.org/.
- **B-4.** National Institute for Occupational Safety and Health available at http://www.cdc.gov/niosh/homepage.html.
- **B-5.** Product Director Test, Measurement, and Diagnostic Equipment available at http://pdtmde.redstone.army.mil.

APPENDIX C

ADDITIONAL ACCIDENT INVESTIGATION REPORT INFORMATION

C-1. General. The application of the RM process and leader involvement in Army accidents have been identified as information critical to accident prevention. Therefore, commanders will obtain responses to the following questions during investigations and document the information on accident reports as noted below. The information may be attached to the accident report.

C-2. Additional Accident Information Questions.

a. At what level was the mission/training conducted?

G
brigade battalion company battery platoonSquad Team crew other specify NA
b. Who approved the mission/training?
c. Was RM performed? Yes No
d. Who performed rank/position?
e. Who accepted risks rank/position?
f. What was the level of residual risk after the controls were applied? Low moderate high extremely high
g. How was the RM process communicated? (Select all that applies) order
worksheet Verbal brief not communicated other specify
h. Was the potential for the accident/event/identified/considered during RM process?

i. If yes, what was the level of the identified risk (select one) low moderate high extremely high
j. If yes, were control measures applied? Yes No
k. If yes, who was responsible for implementing control(s)?(rank/position)
I. If yes, was the potential for the accident event accepted as residual risk? Yes No No Yes No No
m. Who was in charge during the mission/training? (rank/position)
n. Who was the senior leader present during the mission/training? (rank/position)

APPENDIX D

INTERNAL CONTROL EVALUATION CHECKLIST

- **D-1. Function.** The function covered by this checklist is the inspection, evaluation, and operation of the NYARNG Safety Program.
- **D-2. Purpose.** The purpose of this checklist is to assist commanders, managers, and supervisors in evaluating the key management controls outlined below. It is not intended to cover all controls.
- **D-3. Instruction.** Answers must be based on the actual testing of key management controls (for example, document analysis, direct observation, sampling, simulation, other). Answers, which indicate deficiencies, must be explained and corrective action indicated in supporting documentation. These management controls must be evaluated at least once every five years. Certification that this evaluation has been conducted must be accomplished on DA Form 11–2 (Internal Control Evaluation Certification).
- **D-4. Test questions.** Minimum internal control standards are contained in AR 385-10, Appendix D. Each section needs to be evaluated. These items should be evaluated IAW the state 5-year management control plan.
- **D-5.** Composite ARNG Safety Development and Assessment Program (CASDAP). CASDAP is a cooperative three-phased/three year cyclical effort to meet the assessment requirements outlined in AR 385-10 (internal control evaluations), and to provide developmental enhancements to existing NYARNG safety programs.
- **a.** Phase I is self-assessment conducted by the State SOHM. Upon completion of Phase I, the SOHM will input the results into the Strategic Management System (SMS) and brief the NYARNG leadership of the results during the following NYARNG Command Safety and Occupational Health Council.
- **b.** Phase II is a remote assessment conducted by the State SOHM and designated Army National Guard CASDAP team members. The State SOHM will upload safety documents to the CASDAP GKO website where they will be reviewed by the CASDAP team. The results of this remote assessment will be forwarded by the CASDAP team to the ARNG Safety Branch and briefed by the SOHM during the following NYARNG Command Safety and Occupational Health Council.

c. Phase III will be an on-site assessment to verify parts of the safety program that could not be assessed remotely. This assessment will be conducted by CASDAP team members designated by the Army National Guard. Phase III concludes with an out brief from the CASDAP team to the NYARNG leadership and a final report forwarded through the ARNG Chief of Aviation and Safety Division to the NYARNG Adjutant General. The CASDAP cycle begins again with phase I.

APPENDIX E

NYARNG SAFETY AND OCCUPATIONAL HEALTH REQUIRED TRAINING

E-1. New Employee/Arrival Orientation.

- **a.** All employees, to include temporary labor, summer-hires, co-ops, interns, students and trainees, shall be trained about his/ her job hazards and related control measures (via the Job Hazard Analysis), the organization's safety and health policies, responsibilities and procedures for safe work practices and accident reporting, procedures for identifying and correcting unsafe work conditions and practices, provisions for medical facilities and emergency response and all other applicable safety and health requirements:
- (1) NYARNG SOH Office will provide training on general safety in the workplace, to include covering the federal and state regulations that apply, to newly appointed technicians. The NYARNG SOH Office will then provide dates for the next 10hr or 30hr OSHA course, depending if new employee is a supervisor or not.
- (2) Technician supervisors will submit the new employees name to the NYARNG SOH Office to be entered into the OSHA 10hr course. Prior to the employee beginning work the supervisor or designated CDSO must provide the commanders/supervisors safety philosophy, and the policies and procedures established at all levels. Supervisors then will provide the employee a JHA that established tasks with the hazards associated with that task, and the personal protective equipment (PPE) to use.
- (3) Commanders or designated ADSO will introduce themselves to the newly assigned Soldier and provide a safety brief covering state, brigade, battalion, and company level safety procedures and policies. The new Soldier will have to make up any safety courses provided prior to the Soldier being assigned to the unit.
- **b.** Emergency Action and Fire Prevention Plans, 29 CFR 1910.38, 39. For all employees/Soldiers upon initial assignment to a unit/organization and annually thereafter. Training deals with handling emergency situations, to include use of emergency and rescue or lifesaving equipment, drills and implementing the elements of these plans.

c. Global Harmonized System (GHS) Hazard Communication (HAZCOM), 29 CFR 1910.1200. For all employees potentially exposed to hazardous chemicals in the workplace. Training consists of:

- (1) Safety professionals will use the slide decks located on the NYARNG Safety Docushare: http://docushare:8080/docushare/dsweb/View/Collection-162975/Document-1932852.
- (2) Soldiers and employees will review the unit's/organization's master chemical list and ensure the Soldier understands how to look up an Safety Data Sheet (SDS) within the binder, what health hazards the chemicals have, and then sign a signature page on the front of the SDS binder.
- (3) Training NCOs and/or training officers will use the certificate template from FRA GO FY13 3080 (GHS Training) and submit all Soldiers who have completed the training into DTMS.
- (4) The HAZCOM coordinator will conduct sustainment training annually or when a new chemical is introduced into the workplace.
- d. Motorcycle Safety Foundation Training, AR 385-10. All Soldier and technicians DoD civilians that operate a Privately Owned Motorcycle (POM) will follow the guidance for MSF progression. The NYARNG SOH Office needs to be notified prior to the individual attempting to take an MSF based course, in order to secure funding to support that individual.
- e. Fire Extinguisher Training, 29 CFR 1910.155, 157. For employees and Soldiers who are designated to use fire extinguishers while responding to fires. Training is provided upon assignment of related duties and at least annually thereafter. Train-the-\trainer course is provided by the NYARNG SOH Office, or fire extinguisher training can be provided by local fire department as long as the training is documented.
- f. Personal Protective Equipment (PPE), 29 CFR 1910.132. For employees required to use PPE. Training is provided prior to initial use, each time new PPE is required and as needed to maintain proficiency in the use, maintenance and disposal of PPE (for all purposes, at least annually). In addition to addressing the above PPE issues, supervisors need to teach their employees what specific PPE is required for their individuals task, how to properly don, doff, adjust and wear it and the PPE's limitations. Supervisors will incorporate the PPE prescribed to the Soldier/employee within their Job Hazard Analysis (JHA), and will update the PPE training upon change in operations (i.e., new machinery, new equipment, etc.)

- g. Hearing Conservation Training, 29 CFR 1910.95. For employees occupationally exposed to continuous sound levels equal to or greater than an 8-hour time-weighted average of 85 decibels (dBA) or impact noise equal to or greater than 140dBA. Training is at time of initial assignment and annually thereafter, provided by ADSO/ CDSO with commercial product. Please contact the NYARNG SOH Office for commercial product if not already provided.
- h. Respiratory Protection Training/Fit Testing, 29 CFR 1910.134. For employees/Soldiers requiring the use of respirators, regardless of length of use. Training is as for other PPE, but also includes details of the facilities Respiratory Protection Program or Procedures. This training will be conducted for personnel enrolled into the unit/organizations Respiratory Protection Program annually. This training must be provided by a competent person (PPE Manager, ADSO/CDSO, and NYARNG SOH Office) who has successfully completed OSHA Respiratory Protection Course or equivalent training (i.e., Fit Test Train-the-trainer). Train-the-trainer courses should be taken approximately once every 4 years (NYARNG SOH Office provides this class). Fit-testing of all respirators is to be performed annually.
- i Forklifts and Powered Industrial Vehicles, 29 CFR 1910.178. Site specific training is required for employees operating forklifts, tow motors, platform lift trucks and other powered industrial trucks. Drivers Training Program must be in place that addresses training and certification, and authorization of the operators of these vehicles. Initial training must be both classroom and practical operation of the same type of truck the student uses on the job, in the specific location the employees and Soldiers will being operating. This training will consist of the employees identifying the hazards that are located within the operation area to abate or mitigate. Training and evaluation are required initially, at least once every three years and when and if any of the following occurs:
- (1) Operator is involved in an accident or near-miss with powered industrial truck:
 - (2) Operator has been observed driving in an unsafe manner;
 - (3) Operator is assigned a different type of truck;
 - (4) Operator needs additional training; or
- (5) When there are changes in the workplace that may affect safe operation of the truck (i.e., different type paving, reconfiguration of storage racks, new construction leading to different layout of the workplace, restricted visibility, etc.) The NYARNG SOH Office will provide a train-the-trainer course for supervisors or designated representative.

j. Blood borne Pathogens (BBP), 29 CFR 1910.1030. Purpose is to prevent the spread of BBP for employees and soldiers reasonably anticipated to have occupational exposure to blood or other potentially infectious materials. Training shall be within 10 days of initial assignment to personnel involved in tasks involving such exposures and at least annually thereafter. Trainers must be a "qualified person" or commercial source and additional training is required for laboratory/production workers. Training for others provided annually, approximately 4 hours, by any available local assets. Training is part of the USACIDC BBP. Exposure Control Plan (ECP) which can be supplemented by local commands as needed.

- k. Cold Weather Injury Prevention (Winter Safety), AR 385-10. Provide refresher training in cold weather injury prevention and other winter safety points annually.
- I. Confined Space Entry (CSE), 29 CFR 1910.146. For entry supervisors, entrants, attendants and rescue teams involved in any CSE work, as well as for those individuals that monitor the programs of others. Training is provided prior to assignment of CSE- related duties, whenever conditions affecting permit-required confined space change, annually (including rescue drills) and every time addition training is necessary to ensure proficiency in his/her individual CSE duties. Training ranges for 2-32 hours, depending on degree of detail needed and can be obtained from commercial sources.
- **m. Ergonomics.** For all workers performing activities that stress the body's capabilities (lifting, handling, carrying, rapid and frequent application of high grasping forces, repetitive hand (arm manipulation); incorporate them into the AHA/JHA. Approximately 1 hour, available from the Occupational Health Office and commercial sources.
- n. First Aid/CPR/AED, 29 CFR 1910.151: To ensure personnel are available to provide emergency first aid when medical assistance is not readily available. When a medical facility or physician is not available within five minutes, at least two first aid attendants shall be available on each shift, having current certification in first aid (approximately 8 hours; training not more than three years old) and CPR (requires bi-annual refresher (every 2 years) from the National Safety Council (NSC) or prior to expiration of current certification, whichever occurs first. Employees who work alone in remote areas shall also be first aid certified. Where Automatic External Defibrillators (AEDs) are stationed at worksites, employees must hold a CPR/ AED certificate through NSC. A quarterly refresher on the use of the AED is recommended annually.

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o. Army Motor Vehicle Sustainment/ Remedial Training, AR 600-55.

Required to maintain a high level of driver skill proficiency and to prevent drivers from acquiring poor driving habits. Commanders/supervisors will develop and implement a sustainment training program to be conducted every 2 years for NYARNG Soldiers/employees. 1st line leaders/wage leaders will conduct an annual check ride for each driver to assess driving proficiency and identify weaknesses. Sustainment training will follow requirements set forth in AR 600-55.

- **p.** Electrical Safety, 29 CFR 1910.332. Train employees in the safe work practices required by 29 CFR 1910.331-335 that pertain to their respective job assignments. Supervisors will train employees on the potential exposure to any and all electrical hazards within the workplace, to include:
 - (1) Basics of arc flash/blast (from FMO employees working on electrical panels);
 - (2) Inspection of electrical equipment cords, and grounding prongs;
 - (3) Ground Fault Circuit Interrupters (GFCI) protection;
 - (4) Appliance usage with surge protectors;
 - (5) "Daisy-chaining,"
 - (6) Extension cord use.
- **q.** Lockout/Tag out, Control of Hazardous Energy, 29 CFR 1910.147. For employees involved with hazardous energy control procedures. Training is provided initially and at least annually thereafter and as necessary to maintain proficiency in related procedures. Training which includes recognition of hazardous energy sources in the workplace, the types and magnitudes of energy associated with them and related lockout/tag out procedures. Initial/refresher training provided by commercial source. Contact the NYARNG SOH Office for commercial source.
- r. Emergency Spill Response (HAZWOPER- Hazardous Waste Operations and Emergency Response), 29 CFR 1910.120. Requires employees/Soldiers to be trained to provide their designated level of response to hazardous substance spills. The levels are:
 - (1) First Responder Awareness Level;
 - (2) First Responder Operations Level;

- (3) Hazardous Materials Technicians;
- (4) Hazardous Materials Specialist; and
- (5) On-Scene Incident Commander.

Mobile District employees are generally limited to the First Responder levels. After initial 40-hours spill response training, the designated team members are required to have 8-hours refresher annually, including an emergency drill in response to a simulated hazardous chemical spill. Initial/ refresher training is obtained from a commercial source through the NYARNG SOH Office.

- **s. Fall Protection, 29 CFR 1926.500.** Requires fall protection training be provided for each employee who might be exposed to fall hazards. Employer must ensure that a competent person teaches affected employees about the nature of fall hazards in the work area; retraining shall occur as necessary to maintain employee understanding and knowledge of compliance. The employer must have written certification for all fall protection training performed. Training normally 2-4 hours, performed by vendors, manufacturers, consultants or commercially.
- t. Laser and Radiation Hazards, (Reference): Conduct medical evaluations (bi-annually) and ensure annual training for all personnel involved with the use of ionizing radiation sources, including tactical lasers IAW AR 385-10, Chapter 7.
- u. Powered Hand Tools, 29 CFR 1910.241-244. Requires employees to pass a proficiency test prior to use of such tools. Supervisors will establish a proficiency test for employees to take upon initial employment.
- v. Welding Safety, 29 CFR 1910.251-255. Requires welders, cutters, and their supervisors to be trained in the safe operation of their equipment. American Industrial Hygiene Association's publication entitled "Welding Safety and Health" for use of training. Employees in charge of oxygen or fuel-gas supply equipment shall be instructed about the safe use of this equipment and judged as competent by their employer for its use prior to being placed in charge of it.

w. Safety and Occupational Health Manager (SOHM).

(1) Completion of the Ground Safety Officer Course with a certifying additional skill identifier of 6Q is highly recommended prior to selection of the SOH position, but required within 12 months of assignment.

(2) Explosive Professional Certification within 12 months of Hire. (see USACRC/SC website) Training per AR 385-64 paragraph 1-8 and Figure 1-1.

- (3) CP-12 Level 1 Certification within 18 months of hire. (See USACR/SC website.
- (4) The following courses are required for full-time SOHM. Full-time SOHM are encouraged to continue their safety education after attaining core curriculum by completing eight Continuing Education Units every two years in safety related areas to maintain competency.

COURSE TITLE	CODE	SCHOOL	DAYS	REQUIRED WITHIN
RCASSOH	0	NGB	4	6 Months
Range Safety Level II	0	TRADOC/NGB	5	2 years
Blue Print Design & Review	0	USA PHC/NGB	5	2 years
Only = O	•		•	

- x. Brigade Safety Officers. Completion of the Ground Safety Officer Course with a certifying additional skill identifier of 6Q is recommended within 12 months of assignment. However, no full-time position exists in the NYARNG nor does it exist in current MTOE. Therefore, completion of the online additional duty safety officer course is the required training for this position. The course must be completed within 90 days of assignment.
- y. Battalion, Company and below Unit Safety Officers. Completion of the Ground Safety Officer Course with a certifying additional skill identifier of 6Q is recommended within 12 months of assignment. At a minimum, completion the following courses are required for individuals serving as Additional Duty Safety Officers (ADSO) at battalion and below unit level Safety Officers. Completion of the ADSO course is not required below the company level.

COURSETITLE	CODE	SCHOOL	DAYS	REQUIRED WITHIN
Additional Duty Safety Course	0	USACRC	Web- based	90 days
Risk management Basic Course	0	USACRC	Web- based	90 days

O = Only Web-based training from USACRC is found at the following web site: https://crc.army.mil

APPENDIX F

RISK MANAGEMENT

F-1. Risk Management.

- **a.** Although risks are an inherent part of combat operations, evaluating and applying stringent risk controls can effectively control them.
- **b.** Protection of the force shall be a continuous consideration in relation to the Guard's mission. Successful accident prevention programs are a by-product of command supervision. Commanders will ensure that RM techniques are used whenever planning or conducting training exercises.
- **c.** Elimination of inherent risks can be achieved by training personnel to systematically identify and eliminate unsafe procedures, operations, and hazardous conditions. Soldiers must be motivated to keep alert, follow prescribed procedures, think safety, and operate within their own and their equipment's capability. Leaders are charged with insisting on performance to the standards that are in place.
- **F-2. RM Definition.** RM is a logic-based management tool that uses a common sense approach to limit exposure to risk by making calculated decisions on human, materiel, and environmental factors before, during, and after every operation. It is a relatively simple decision-making process; a way of thinking through a mission or task to balance mission demands against risks and ensures that unnecessary risks are eliminated.
- **F-3. Purpose.** The purpose of RM, as outlined in ATP 5-19 and DA Pamphlet 385-30, is to identify operational risks and take the necessary measures to reduce or eliminate hazards associated with the task or operation. Managing risks allows units to train and operate successfully in high-risk environments and achieve realistic results without compromising safety.
- **F-4. Responsibilities.** Leaders must use the RM process to identify known and potential risks and to develop controls that will reduce the adverse effects of these hazards:
- **a.** TAG will ensure that written RM procedures are developed, published, and distributed to each unit.

- **b.** Commanders are responsible for the effective management of risks. To meet this objective, commanders must:
- (1) Train and motivate leaders at all levels to effectively use RM concepts IAW ATP 5-19 and DA Pamphlet 385-30.
- **(2)** Conduct a continuous proactive effort to achieve force protection objectives and minimize the loss of mission assets.
- (3) Ensure that each mission is evaluated during the planning phases of development.
 - (4) Accept no unnecessary risks.
 - (5) Make risk decisions at the proper level.
 - **(6)** Accept risks only if the benefits outweigh the costs.
- **c.** Training officers/NCOs and safety officers/NCOs at all levels will implement RM procedures for all operational requirements. In a coordinated effort, these individuals will ensure that the following actions are accomplished:
 - (1) Provide program training to all assigned unit personnel.
 - (2) Review accident experience trends and provide an analysis as appropriate.
- (3) Conduct periodic surveys to operating and training procedures. Identify deficiencies and recommend actions necessary to eliminate inherent hazards.
- **(4)** Evaluate new doctrine for risk implications and necessary control measures.
- **F-5. Objectives.** The objective of this program is to establish situational standards that effectively balance risks with operational objectives. Achieving these objectives requires:
 - a. Command involvement at all levels.
 - **b.** Commanders and supervisors at all levels to analyze risks.

- **c.** Training of all NYARNG personnel in RM and assessment procedures.
- **d.** The establishment of a mechanism to provide leaders with feedback on the effectiveness of training programs.
 - **e.** Leaders to alert the chain of command to high risk missions.
 - f. The establishment of acceptable risk parameters.
- **g.** The development of procedures to change undesirable individual crew member/Soldier behavior.
 - **h.** Matching mission requirements with crew/personnel selection.
- **F-6. Program Elements.** The program is based on, but not limited to, the following elements or hazards:
 - a. Type of mission and complexity.
 - **b.** Planning and supervision.
 - **c.** Unit/crew/personnel selection.
 - **d.** Unit/crew/personnel endurance.
 - e. Weather.
 - f. Equipment.
 - **g.** Environment.
 - **h.** Training.

F-7. RM Risk Decision and Approval.

a. DD Form 2977 is the only authorized form for conducting RM and approving risk acceptance levels.

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b. Levels of risk. Operations should be categorized according to level of risk. The Army program consists of four levels: low, medium, high, and extremely high. These levels are used to call attention to the significance of each risk and to enable decision-making at the proper level. Commanders will ensure that all blocks are filled on DD Form 2977, to include Block 14 (Feedback and Lessons Learned).

- **c.** Risk decisions. The higher the level of risk, the higher the level at which acceptance of that risk shall be made. Formalized procedures shall be developed that specify at what level of command a particular risk decision must be made. Commanders are required to make informed risk decisions at the appropriate level. The final risk decision is made on the highest level of residual risk in column 9 of DD Form 2977, Deliberate Risk Management Worksheet. Use the Risk Assessment Matrix found in ATP 5-19 or DA Pamphlet 385-30 to determine the risk assessment. The overall mission risk level will be the highest residual risk. Commanders shall approve the mission at the following overall residual risk levels:
 - (1) Low risk Company commander or responsible 0-3.
 - (2) Moderate risk Battalion commander or responsible 0-5.
 - (3) High risk Brigade commander or responsible 0-6.
 - (4) Extremely high risk General officer.

Risk acceptance authority may be delegated, see criteria in DA Pamphlet 385-30, Table 4-2.

- **d.** RM cycle. The 5-step process is continuous. Step 5, supervising, will allow leaders to evaluate the effectiveness of the controls that have been put in place. The 5-step process is then worked through again, and any adjustments to the controls are made.
- **e.** After the operation is complete commanders will review risk management worksheets during the AAR to capture lessons learned and evaluate the effectiveness of controls applied during the risk management process. This feedback will be annotated on DD Form 2977 block 14 and will be maintained on file IAW ARIMS filing procedures for future reference.

APPENDIX G

ABBREVIATIONS

G-5. G-6. G-7. G-8. G-9. G-10. G-11. G-12. G-13.	ACTEDS ACV ADSC ADSO ADP AFARS AGR AMMO AMV ANSI ARAP ARNG ASCC ATTP	Ammunition and explosives. Arms, ammunition and explosives. Army Commands. Army Civilian Training, and Development System. Army combat vehicle. Additional duty safety course. Additional duty safety officer. Army Doctrine Publication. Army Federal Acquisition Regulation Supplement. Active Guard Reserve. Ammunition. Army motor vehicle. American National Standard Institute. Army Readiness Assessment Program. Army National Guard. Army Service component command. Army Tactics, Techniques, and Procedures. All-terrain vehicle.
G-19. G-20.	BRC BSL	Basic Rider Course. Biosafety level.
G-21. G-22. G-23. G-24. G-25. G-26. G-27.	CONUS COTS CP CSC	Chemical, biological, radiological, and nuclear. Code of Federal Regulations. Continental United States. Commercial off-the shelf. Career Program. Commander's Safety Course. Civil Support Team (Weapons of Mass Destruction)
G-28. G-29. G-30.	DA DA Pam DDESB	Department of the Army. Department of the Army pamphlet. Department of Defense Explosive Safety Board.

ABBREVIATIONS (cont'd)

DFARS DoD DoDD DoDI DOT DRU DSN DTR	Defense Federal Acquisition Regulation Supplement. Department of Defense. Department of Defense Directive. Department of Defense Instruction. Department of Transportation. Direct reporting unit. Defense Switched Network. Defense Travel Regulation.
ESMP ESSP	Explosive Safety Management Program. Explosive Safety Siting Plan.
FASS	Facility System Safety.
HAZCOM HAZMAT HERO	Hazard Communication. Hazardous Material. Hazards of Electromagnetic Radiation to Ordnance.
HQDA	Headquarters Department of the Army.
MEDCOM MIL-STD MTF MTS	Medical Command. Military Standard. Military Treatment Facility. Maintenance Testing Specifications.
NDI NETA NFPA NGB	Non-deployment Item. National Electrical Testing Association. National Fire Protection Association. National Guard Bureau.
OSHA	Occupational Safety and Health Administration.
PCS PMDE	Permanent Change of Station. Preventative Maintenance Test, measurement, and diagnostic Equipment.
PMV POC POV	Private Motor Vehicle. Point of Contact. Privately Owned Vehicle.
	DoD DoDD DoDI DOT DRU DSN DTR ESMP ESSP FASS HAZCOM HAZMAT HERO HQDA MEDCOM MIL-STD MTF MTS NDI NETA NFPA NGB OSHA PCS PMDE PMV POC

ABBREVIATIONS (cont'd)

G-60. G-61. G-62.	RCWM RDT&E RSC	Recovered Chemical Warfare Material Research, development, test, and evaluation. Radiation Safety Committee.
G-63. G-64.	SOH SOHM	Safety and Occupational Health. Safety and Occupational Health Manager.
G-65. G-66.	OCONUS ODASAF	outside the continental United States. Office of the Director of Army Safety/
	TB TDY TAG TMDE TRADOC	technician bulletin. Temporary Duty. The Adjutant General. Technical, Measurement, Diagnostic, Equipment. United States Army Training and Doctrine Command.
G-72.	SOP	Standing Operating Procedure.
	USAR USATCES USC	Uniform Code of Military Justice. United States Army Corps of Engineers. United States Army Reserve. United States Army Technical Center for Explosives Safety. United States Code. United States Coast Guard.
G-79.	VC	Vehicle Commander.

APPENDIX H TERMS

H-1. Accident

Any unplanned event or series of events that results in death, injury, or illness to personnel, or damage to or loss of equipment or property. (Within the context of this document, accident is synonymous with mishap.)

H-2. Accident-based risk management

RM used to identify, evaluate, manage, and prevent accidents to personnel, equipment, and the environment during peacetime, contingency operations, and wartime due to SOH factors; design and construction of equipment and other accident-based factors.

H-3. Accident classification

NYARNG ground and aviation accidents are classified in accordance with AR 385-10.

- **a. Class A:** An Army accident in which the resulting total cost of property damage is \$2,000,000 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 systems (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 exceeds \$2,000,000 or more.
- **b.** Class B: An Army accident in which the resulting total cost of property damage is \$500,000 or more, but less than \$2,000,000; an injury and/or occupational illness results in permanent partial disability, or when 3 or more personnel are hospitalized as inpatients as the result of a single occurrence.
- **c.** Class C: 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 B and is a lost time case).
- **d. Class D:** An Army accident in which the resulting in total cost of property damage is \$20,000 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.

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e. Class E ground accident: An Army ground accident in which the resulting total cost of property damage is \$5,000 or more but less than \$20,000.

- **f. Class E aviation accident:** An Army aviation accident in which the resulting total cost of property damage is \$5,000 or more but less than \$20,000.
- g. 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–R (Abbreviated Aviation Accident Report); check "F" in the "Accident Classification" block. Note that when appropriate, it is the unit commander's responsibility to ensure that an SF Form 368 (Product Quality Deficiency Report) or equipment improvement report (EIR) for Category II or message for Category I is completed and forwarded to the appropriate agency per AR 750–6, DA Pamphlet 750–8, or DA Pamphlet 738–751. The USACRC and the appropriate Army Headquarters will be information addressees on all Category I EIRs and product quality deficiency reports.
- h. Class R: The total resulting cost of damage is less than \$5,000 or a non-duty loss/accident, near misses, etc. A Class R accident is unique to the ARNG and expands trending ability and provides emphasis on program requirements.

H-4. 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.

H-5. 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.

H-6. 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.

H-7. Army accident

An unplanned event, or series of events, which results in one or more of the following:

a. Occupational illness to Army military or DA Civilian personnel.

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- **b.** Injury to on-duty DA 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).

H-8. NYARNG accident

An unplanned event or a series of events which results in one or more of the following:

- a. Damage to NYARNG property.
- **b.** Injury to NYARNG military members, on or off duty.
- **c.** Damage to civilian property, equipment or persons caused by NYARNG personnel or equipment.
 - **d.** Injury to on-duty NYARNG technicians or NYARNG contractor personnel.
- **e.** Occupational illness to NYARNG military members, NYARNG technicians, or NYARNG contractor personnel.
- **f.** Injury or illness to non-NYARNG personnel or damage to non-NYARNG property as a result of NYARNG operations.

NOTE: See AR 385-10, paragraph 3-7 for occurrences that do not constitute an Army/ NYARNG accident. The NYARNG SOH Office has the final in-state determination of the accident class and type.

H-9. NYARNG Combat Vehicle Accident

An accident involving the operation of combat vehicles or equipment; such as tanks, self-propelled weapons, armored personnel carriers, amphibious vehicles ashore, and similar equipment being operated as such at the time of the accident. Included are:

- **a.** Collisions with objects, pedestrians, or other vehicles.
- **b.** Personnel injury or property damage due to cargo shifting in a moving vehicle.

- **c.** Personnel injury in moving vehicles or by falling from moving vehicles.
- **d.** Towing or pushing accidents.

H-10. NYARNG Army Motor Vehicle (AMV)

A motor vehicle:

- **a.** That is owned, leased (includes GSA vehicles that are under full operational control of the NYARNG) or that is on hand receipt or like document, or rented by the NYARNG for official business.
 - **b.** That is primarily designed for over-the-road operations.
- **c.** Whose general purpose is the transportation of cargo or personnel. Examples are passenger cars, station wagons, trucks, vans, buses, motorcycles, and refueling vehicles.
- **d.** Motor vehicle equipment designed primarily for off-the-highway operations; such as tracked vehicles, forklifts, road graders, agricultural-type wheeled tractors, and aircraft tugs.

H-11. NYARNG Motor Vehicle Accident

An accident involving the operation of an NYARNG motor vehicle being operated as such at the time of the accident. Included are:

- **a.** Collisions with other vehicles, objects, or pedestrians.
- **b.** Personnel injury or property damage due to cargo shifting in a moving vehicle.
 - **c.** Personnel injury in moving vehicles or by falling from vehicles.
 - **d.** Towing or pushing accidents.
 - e. Other injury and property damage as described in the term "NYARNG accident."

H-12. Army National Guard Personnel

This includes, for purposes of this pamphlet, Army National Guard Personnel that are:

- **a.** Federal civilians employed by the Department of Defense.
- **b.** Active Guard Reserves (AGRs) who are in either a Title 10 or a Title 32 status.

- **c.** Federal Technicians.
- **d.** Military members who are not AGRs (i.e., do not perform 180 days of continuous active service). These are M-day Soldiers.
- **e.** State employees whose salaries and benefits are reimbursed by the National Guard Bureau through the Master Cooperative Agreement.
 - **f.** Contractors who work for the Army National Guard.

H-13. 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.

H-14. Army Readiness Assessment Program

A Web-based program that provides battalion equivalent and above commanders with data on their organization's readiness posture by assessing its safety climate and culture.

H-15. Army risk management process

A holistic approach to preserving readiness that applies 24 hours a day, 7 days a week to Soldiers, DA civilians, and contract workers. The process has five phases that form a closed loop system of RM, mitigation, and evaluation.

H-16. Army tactical vehicles

Any vehicle designed for field requirements in direct support of combat and tactical operations used to provide transportation, or for training personnel for such operations (to include ATVs, mopeds, and MCs).

H-17. 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.

H-18. Biomedical research and/or activity

The application of biological science in medical research, development, testing and evaluation for the purpose of illness prevention and product development.

H-19. Biosafety level

A combination of facilities, equipment, and procedures used in handling etiologic agents to protect the worker, environment, and community. This combination is proportional to the potential hazard of the etiologic agent in question.

H-20. Biosafety level 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.

H-21. Biosafety level 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 IAT 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.

H-22. Biosafety level 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 handing 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.

H-23. Biosafety level 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.

H-24. Blister agent

A chemical agent that injures the eyes and lungs, and burns or blisters the skin.

H-25. 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.

H-26. 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.

H-27. Chemical ammunition

Ammunition with a filter that has the basic function of producing a toxic or irritant effected on the body, a screening or signaling smoke, or an incendiary action.

H-28. Chemical event (also see AR 50-6)

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 non-stockpile 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 over pack 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 according to 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 PPE.

- **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 as a delivery/dispersal system for use in war, irrespective of fusing or explosive configuration.

H-29 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.

H-30. Chemical warfare

All aspects of military operations involving the use of lethal munitions and/or agents and the warning and protective measures associated with such offensive operations.

H-31. Chemical weapons system

An integrated relationship of chemical agents, munitions, or spraying devices and their mode of delivery to the target.

H-32. 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 or her unit does or fails to do. He or she cannot delegate his or her responsibility or any part of it although he or she may delegate

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portions of his or her authority to competent individuals. An individual designated by the commander to address areas of primary interest within that individual's technical expertise.

H-33. Concentration

The amount of a chemical agent present in a unit volume of air. Usually expressed in milligrams per cubic meter (mg/m3).

H-34. 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.

H-35. Controlled Flight into Terrain

Mishaps involving impact with terrain, water, trees or man-made obstacles where the aircraft is controllable, and the pilot is actively controlling the aircraft. Includes mishaps where the aircraft is flown in controlled flight to a point where it is no longer possible to avoid unintended ground impact (such as, attempted maneuver with insufficient power, altitude or airspeed, low altitude overbank or flight into a box canyon), regardless of subsequent pilot reaction (for example, ejection, stall, spin, and so forth); or the pilot's ability to control the aircraft is reduced due to spatial disorientation.

H-36. 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.

H-37. Contracting agency

The organization that has primary responsibility for monitoring, administering, and ensuring compliance with the contract, especially pertaining to the chemical agent program.

H-38. 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.

H-39. Control

Action taken to eliminate hazards or reduce their risk.

H-40. Conveyance

A truck, tractor-trailer, railcar, or commercial intermodal container used for transportation of ammunition, explosives or HAZMAT.

H-41. Days away from work

Those days when a person loses one or more work days as a result of an injury or illness, starting with the day <u>after the</u> injury occurred or the illness began and including calendar days the person was unable to work, regardless of whether the person was scheduled to work on those days. For military personnel, days away from work for on- and off-duty injuries and occupational illnesses include inpatient hospitalization, medical restrictions to quarters, convalescent leave, and commander directed removal from duties.

H-42. Days of restricted work or transfer to another job

Days on which a person is working but restricted from completing assigned tasks, works less than a full day or shift, or is transferred to another task to accommodate the injury or illness. Calendar days not scheduled to work are included in the count of days. Count of days is stopped when the person is either returned to their pre-injury or pre-illness job or permanently assigned to a job that has been modified or permanently changed to eliminate the routine functions the person was restricted from performing. For military personnel, restricted work or transfer to another job includes limited- and light-duty assignments.

H-43. Department of the Army Civilian personnel

Includes the following types of personnel:

- **a.** Senior executive service, general management, GS, and Federal Wage System employees.
 - **b.** USACE employees.
 - c. ARNG and USAR technicians.
 - **d**. Non-appropriated fund employees (excluding part-time military).

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e. South/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.

H-44. Department of the Army contractor

A non-federal employer engaged in performance of a DA contract, whether as prime contractor or subcontractor.

H-45. 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), military treatment facilities (MTFs), terminals, and other special mission installations.

H-46. Debris

Any solid particle thrown by an explosion or other strong energetic reaction. For above-ground 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.

H-47. Decommissioning

The process of safely closing a facility where nuclear materials were handled to retire it from service after it's useful life has ended. This process primarily involves decontaminating the facility to reduce residual radioactivity and then releasing the property for unrestricted use.

H-48. 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 of sterilization, chemical inactivation or a combination of these methods.

H-49. Decontaminating material

Any substance used to chemically destroy, physically remove, seal, or otherwise make harmless a chemical agent.

H-50. Demilitarization

The mutilation, destruction, or neutralization of chemical agent materiel, rendering it harmless and ineffectual for military purposes.

H-51. Detection

The determination of the presence of a hazardous (chemical, radiological, or biological) agent.

H-52. Dud

An explosive item or component of a weapon system that fails to function.

H-53. Duty Status Determination

The following explanation of terms is for accident reporting purposes only. They have no relation to compensability or line-of-duty (LOD) determination. NOTE: Judgment may be required in some cases that do not fit the definition set forth below.

- **a.** On duty. NYARNG personnel are on duty when they are:
- (1) Physically present at any location where they perform their officially assigned work. On duty also includes those normal activities that occur during workdays on or off military installations; for example, lunch or coffee breaks, and all activities aboard vessels/aircraft.
- **(2)** Being transported by Army or commercial conveyance to perform officially assigned work.
- (3) In a travel status because of temporary duty or a permanent change of station, but only during periods for which reimbursable expenses are authorized.
- (4) Participating in compulsory and/or TAG-approved sports or physical training activities
 - **b.** Off duty. NYARNG personnel are off duty when they are:
 - (1) Not in an on-duty status, whether on or off Army/NYARNG installations.
- (2) Have departed the official duty station/temporary duty (TDY) station at the conclusion of the normal duty day.
 - (3) When on leave.

- (4) When traveling before or after official duties, such as to and from work.
- **c**. Non-duty. Member of the NYARNG, but not on orders for duty or performing any military duty-related tasks.

H-54. Emergency

An event for which an individual perceives that a response is essential to prevent or reduce injury or property damage.

H-55. 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.

H-56. Engineering controls

Regulation of facility operations using prudent engineering principles, such as facility design, operation sequencing, equipment selection, and process limitations.

H-57. Engineering or construction

Those activities associated with surveying, building, and erecting, dissembling, 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.

H-58. Environmental factors

Environmental conditions, which had, or could, have had an adverse effect on the individual's actions or the performance of equipment.

H-59. Explosive ordnance disposal

The detection, identification, field evaluations, rendering safe, recovery, and final disposal of unexploded explosive ordnance or munitions chemical agents.

H-60. Explosive ordnance disposal 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.

H-61. 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 will be treated as a separate establishment. Typically, an establishment refers to a field activity, regional office, area office, installation, or facility.

H-62. 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 U.S. Department of Health and Human Services regulations and any material of biologic algorithm that poses a degree of hazard similar to those organisms.

H-63. Evaluation

A specialized inspection designed to determine the effectiveness of a unit's safety and health program.

H-64. 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.

H-65. 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.

H-66. 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.

H-67. Explosive license

An installation-generated document which shows the allowable net explosives weight at each explosive site.

H-68. Exposed site

A location exposed to the potential hazardous effects (blast, fragments, debris, and heat flux) from an explosion at a potential explosion site.

H-69. Exposure

The frequency and length of time personnel and equipment are subjected to a hazard.

H-70. 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 of 1986 (40 CFR 355).

H-71. Facility

A structure that is built, installed, or established to serve a defined purpose. 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.

H-72. Fair wear and tear

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.

H-73. 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.

H-74. Fire Accident

A fire, or an explosion followed by fire, incident to a NYARNG operation or activity which results in:

- **a.** The loss or damage to NYARNG or non-NYARNG property (including timber or grasslands).
 - **b.** Injury.
 - c. Occupational illness.

d. Proven cases of arson, incendiary fire, or dissident actions are excluded. Also excluded are fires resulting from properly-fired ordnance in range impact areas. A fire resulting from an aircraft accident will be termed an aircraft accident.

H-75. Firefighting

Activities associated with developing or using firefighting skills. Excludes vehicle operation going to and from the scene.

H-76. First aid

First aid is defined as using a list of procedures that are all-inclusive and is not a recordable injury. Such one-time treatment and follow-up visits will be considered first aid, even if provided by a physician. Multiple applications of first aid do not represent medical treatment. It is the nature of the treatment, not how many times it is applied, as to whether it qualifies as first aid or medical treatment. 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 non-prescription medication at non-prescription 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.** Non-rigid 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.

- I. 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 intravenous line is medical treatment.)

H-77. Flammable

A material that has the characteristic of being easily ignited and burning readily.

H-78. 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 and or air mission commander.

H-79. Foreign object damage

Damage to Army vehicle/equipment/property as a result of objects alien to the vehicle/equipment damaged. Excludes aircraft turbine engines defined as a foreign object damage incident.

H-80. Fragment

A piece of an exploding or exploded munitions. Fragments may be complete items, sub-assemblies, pieces thereof, or pieces of equipment or buildings containing the items.

H-81. 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.

H-82. Friendly fire/fratricide

A circumstance in which authorized members of U.S. or friendly military forces, U.S. or friendly official government employees, U.S. DoD or friendly nation contractor personnel, and non-governmental organizations or private volunteer organizations, who, while accompanying or operating with the U.S. Armed Forces, are mistakenly or accidentally killed or wounded in action by U.S. 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.

H-83. Government motor vehicle

An item of equipment, mounted on wheels, which is designed for highway or land operations or both and which derives power from a self-contained power unit, or is designed to be towed by and used together with such self-propelled equipment.

H-84. Ground accident

Any accident exclusive of aviation (flight/flight related/aircraft ground/UAS) (for example, AMV, ACV, PMV, marine.)

H-85. Gun target line

An imaginary line drawn between the firing position and target position. Also referred to as the line of fire.

H-86. Handling/material/passengers

Activities associated with the transportation, distribution, and storage of material or passengers (for example, distribute/issue, load/unload, transport/move/deliver, pack/unpack/preserve, inventory/inspect, weigh/measure, palletize/sling load/rig, retrieve, turn in/store).

H-87. 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.

H-88. 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

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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.

H-89. Hazard class

The United Nations Organization hazardous classification system, which contains 9 hazard classes, is used by the DoD six division designators that indicate the primary characteristics and associated hazards.

H-90. Hazard classification

An assignment of A&E (class 1 substances) into one of six divisions for purposes of storage, transportation, and quantity distance computations. These divisions are:

- a. 1.1-mass detonating.
- **b.** 1.2-fragment producing.
- c. 1.3-mass fire.
- **d.** 1.4-moderate fire.
- **e.** 1.5-very insensitive explosives and blasting agent (used by the Army for transportation only).
 - **f.** 1.6-extremely insensitive ammunition.

H-91. Hazardous chemicals

Per OSHA, denotes 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.

H-92. Hazardous materials

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.

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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 Department of Transportation (DOT) uses the term hazardous materials which cover 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.

H-93. Hazardous substances

Includes the following 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.** OSHA uses the term hazardous substance in 29 CFR 1910.120, which resulted from Title I of Superfund Amendments and Reauthorization Act of 1986 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.

H-94. Hazardous wastes

Per the EPA, chemicals that are regulated under the Resource, Conservation, and Recovery Act (42 USC 6901). Hazardous waste in transportation is regulated by DOT (49 CFR 170 through 49 CFR 179).

H-95. 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.

H-96. 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.

H-97. Hospitalization

Admission to a medical treatment facility as an inpatient for medical treatment, civilian or military.

H-98. 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.

H-99. 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.

H-100. 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.

H-101. 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:

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.

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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 high explosive 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 high explosive 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 improved conventional munitions, high-explosive anti-tank, 40mm, and other highly sensitive A&E.

H-102. Improved conventional munitions

Munitions characterized by the delivery of two or more anti-personnel, anti-materiel, and or anti-armor sub-munitions.

H-103. 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.

H-104. Individual risk

Risk to a single exposed person.

H-105. 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.

H-106. Infectious agents and toxins

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.

H-107. Inherent hazard

An existing or permanent hazard (such as voltage, for example).

H-108. 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.

H-109. 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, except as special circumstances may require. Inspections do not include routine, day-to-day visits by SOH personnel, or routine workplace surveillance. It is also the process of determining compliance with safety and health standards through formal and informal surveys of workplaces, operations, and facilities.

H-110. 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.

H-111. 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.

H-112. Investigation

A systematic study of an accident, incident, injury, or occupational illness circumstances.

H-113. 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.

H-114. 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.

H-115. Laser

Light amplification by stimulated emission of radiation; a device capable of producing a narrow beam of intense light. (See TB MED 524 and JP 3–09 for more information on lasers.)

H-116. 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. DoDI 7230.08 further clarifies leased aircraft procedures and requirements. Lease agreements are legal contracts between the government program office and the contractor.

H-117. Lost workday case

Lost workday cases are subdivided into the following two categories:

- **a.** Cases involving days away from work. There are cases in which an accident results in NYARNG military members, technicians or contractor personnel missing one or more workdays. Days away from work are those workdays (consecutive or not) on which these personnel would have worked but could not because of injury or occupational illness. Excluded are days that these personnel would not have worked even though able to work, and the day of the injury or onset of occupational illness. Rearrangement of work schedules is not authorized to eliminate the requirement for reporting days away from work cases.
- **b.** Cases involving days of restricted work activity. There are cases where ARNG military members, technicians, or contractor personnel may not have lost a workday, but because of an injury or occupational illness, the individual:
 - (1) Was assigned to another job on a temporary basis, or:
 - (2) Worked at a permanent job less than full-time, or:
- (3) Worked at a permanently assigned job but could not perform all duties normally connected with it.

NOTE: Personnel must be present at their assigned duty station and performing duties in a restricted capacity as defined above to qualify as a restricted work activity case.

H-118. Maintenance/repair/servicing

Activities associated with the maintenance, repair or servicing of equipment and other property. Excludes janitorial, housekeeping or grounds-keeping activities. Examples include: 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.

H-119. 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.

H-120. Marine accident

An NYARNG marine accident that results in injury, collision, grounding, fire, or explosion that occurs to, or on board, or as a result of, the operation of any NYARNG vessel or service craft or, involves diving or swimming operations resulting in injury or illness to person(s), or damage to a vessel, cargo, or other property.

- **a.** The term includes:
- (1) Accidents occurring while loading or off-loading or receiving services at dockside.
 - (2) Damage to aircraft handled as a commodity on board.
- (3) Accidents occurring up to the high water mark during amphibious or on shore warfare training operation.
- **(4)** Damage and all injuries to NYARNG personnel occurring on board, whether or not job related.
- **b.** The term does not include accidents which are reportable under other major categories prescribed in this regulation; for example, aircraft accident, missile, explosive, or chemical accident.

H-121. Materiel factors

When materiel elements become inadequate or counterproductive to the operation of the vehicle/equipment/system.

H-122. 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.

H-123. Maximum credible loss

The maximum credible loss is the most probable, believable, and catastrophic outcome of a hazard's effect 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.

H-124. 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.

H-125. 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.

H-126. Military treatment facility

Civilian or uniformed services medical centers, hospitals, clinics, or other facilities that are authorized to provide medical, dental, or veterinary care.

H-127. Military operations in urban terrain (MOUT)

A terrain complex where manmade construction impacts on the tactical options available to commanders. These military operations in urban terrain facilities replicate urban environments.

H-128. Military personnel

All Soldiers; that is, U.S. Army active duty personnel; USAR or NYARNG personnel on active duty or full-time National Guard duty or in a paid drill status; Service Academy midshipmen/cadets; Reserve Officers' Training Corps cadets when engaged in directed training activities; foreign national military personnel assigned to DA; and members of other U.S. uniformed services assigned to DA.

H-129. Military unique equipment, systems, and operations

Excludes from the scope of 29 CFR 1960 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 DoD 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.

H-130. Munitions and explosives of concern

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, as defined in 10 USC 2710(e)(2); or munitions constituents (for example, trinitrotoluene, Research Department Explosive) present in high enough concentrations to pose an explosive hazard.

H-131. 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 constituents.

H-132. 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 Levin stein mustard, distilled mustard, and closely related preparations. This standard is not meant to be applied to nitrogen mustards.

H-133. 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.

H-134. Nerve agent

A lethal agent that causes casualties by interfering with the ability of muscles to relax after stimulation by associated nerves.

H-135. Non-duty

Non-duty is defined as one who is a member of the NYARNG but is not on orders for duty or performing military duty related tasks.

H-136. Nonfatal Cases without Lost Workdays

Cases, other than lost workday cases, where NYARNG military members, technicians or contractor personnel, because of an injury or occupational illness:

- **a.** Were permanently transferred to another job or terminated, or:
- **b.** Required medical treatment greater than first aid or:
- **c.** Lost consciousness, or:
- **d.** Were diagnosed as having an occupational illness that did not result in a fatality or lost workday case. This includes new diagnosed occupational illnesses detected on routine physical examinations.

H-137. Observation and Diagnostic Procedure

Hospitalization or restriction from assigned work activities for observation or diagnosis is not a lost workday case or a nonfatal case without lost workdays, if:

a. No treatment or medication is given for the suspected injury or occupational illness, and:

b. Competent medical authority determines the individual could have returned to his or her normal job without impairment or disability. This classification also applies when an individual is temporarily restricted from regularly assigned duties to preclude exceeding time-weighted exposure limits.

H-138. Occupational hazard

Conditions, procedures, and practices directly related to the work environment that creates a potential for producing occupational injuries or illnesses.

H-139. Occupational Illness

Any abnormal physical condition or disorder, other than one resulting from an injury, caused by exposure to the occupational environment and resulting in any of the following:

- **a.** Fatality, regardless of the length of the illness while on duty and employed by the Army.
 - **b.** A lost workday case.
 - **c.** A nonfatal case without lost workdays.
 - d. Permanent total disability or permanent partial disability.

H-140. Occupational Injury

Any on-duty injury to NYARNG personnel caused by events or conditions in the occupational environment that requires more than first aid treatment. 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.

H-141. On-post and Off-post Accidents

Accidents or aircraft mishaps occurring within the confines or Army or NYARNG-owned, leased, or DoD-controlled real estate are considered on-post accidents; all others are considered off-post.

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H-142. Operating vehicle or vessel

Activities associated with operating vehicles or vessels under power. Examples include: driving; convoying/road marching; towing/pushing; mowing hauling/transporting; driver testing; flying; and vehicle road testing.

H-143. Other NYARNG Vehicle Accident

An accident involving damage or personnel injury during the operation of other NYARNG vehicles; such as tugs, bulldozers, forklifts, road graders, GATORS, etc.

H-144. Permanent Disabilities

NOTE: The loss or the loss of use, of both hands, feet, eyes, or any combination thereof as a result of a single accident is considered permanent total disability.

- **a.** Permanent total disability. Any non-fatal 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.
- **b.** 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 of permanent impairment of any part of the body. Exceptions are:
 - (1) Loss of teeth, fingernails or toenails.
 - (2) Loss of tip of fingers or tip of toe, if it is repaired.
- (3) Disfigurement, sprains or strains that do not cause permanent limitation of motion.

NOTE: Hearing loss cases meeting the criteria for reporting in the Army Occupational Health Report (per AR 40-5) are permanent partial disabilities for the purpose of this pamphlet.

H-145. Personnel Classifications

The following classifications are used in reporting NYARNG accidents. Personnel classifications are selected on the basis of the status the individuals are in at the time of the accident.

a. NYARNG technicians, federal civil service personnel and military employed under 32 USC 709.

- **b.** Inactive Duty Training (IDT). Those individuals who are:
- (1) Traveling directly to or from authorized training or performing authorized training as a member of the NYARNG, consisting of regularly scheduled unit training assemblies (UTA), additional training assemblies, periods of appropriate duty or equivalent training, and any special additional duties prescribed activities of the organization in which they are assigned, not to include periods of state active duty.
- (2) Reserve Officer Training Corps cadets performing professional enrichment training while under NYARNG supervision and directed by competent orders, regardless of the training site. Also included are cadets involved in rifle and pistol marksmanship training under NYARNG supervision on any firing range.
- **c.** Annual Training (AT). NYARNG members and Reserve Officer Training Corps cadets, while under NYARNG supervision and directed by competent orders, who are performing annual training under 32 USC 503. Training may be for one consecutive period or in increments of one or more days depending on mission requirements.
- **d.** Active Duty for Special Work (ADSW). Those members of the NYARNG who are under competent orders,
- **e.** Performing short term special missions, with or without pay, for periods of less than 179 days.
- **f.** Active Duty Guard/Reserve (AGR). Those individuals serving on AGR under any of several NYARNG programs (for example, Army Full-Time Manning, AGR-C, Full-Time Recruiting Force, SIDPERS, DAS-3, etc.).
- **g.** Active Duty for Training. Those individuals who are under competent orders performing tours of training duty under Title 10 for periods of 1-179 days. These tours of duty provide for return to non-duty status when the period of active duty is completed.

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h. NYARNG Contractor. A contractor employed in an NYARNG activity or operation, or on an NYARNG installation, including employees and technical representatives, which are performing work under federal contract. An accident is not reported if such an employee is on the contractor's premises working on material for the NYARNG.

- **I.** Other. This category includes all persons not specifically covered in paragraphs a through g above, as follows:
 - (1) Employees of other federal agencies.
 - (2) Other U.S. civilians.
 - (3) Visitors.
- (4) Contractor employees injured on the installation in non-duty activities. Federally reimbursed state employees.

H-146. Privately Owned Motor Vehicle (POV) Accident

A traffic accident, regardless of the operator, that does not involve NYARNG motor vehicles.

H-147. Privileged safety information

Information that is reflective of a deliberative process in the safety investigation or given to a safety investigator pursuant to a promise of confidentiality, which the safety privilege protects from being released outside safety channels or from being used for any purpose except accident prevention. It includes products such as draft and final findings, evaluations, opinions, preliminary discussions, conclusions, accident causes, recommendations, analyses, and other material that would reveal the deliberations of safety investigators, including reviews and endorsements. It also includes information given to a safety investigator pursuant to a promise of confidentiality and any information derived from that information or direct or indirect references to that information.

H-148. Property damage

Includes real property (facilities or real estate), equipment or material where there is a cost to repair or replace.

H-149. Quality assurance specialist (ammunition surveillance)

DA civilian personnel in the grade of GS–09 or above who have received 2 years of ammunition training and are qualified according to AR 75–1 to assist in performing malfunction investigations.

H-150. Qualified safety and health personnel

Includes persons who meet Office of Personnel Management standards for SOHM/ specialist, GS–018, and safety engineer, GS/GM–803. Other job specialties will provide support in their respective specialty.

H-151. Quantity/distance

The quantity of explosives material and distance separation relationships that provide defined types of protection.

H-152. Recordable accident

Reportable accident that meets the minimum criteria stated in the AR 385-10, and this pamphlet, for aviation and ground Class A through D accidents.

H-153. Reportable accident

All occurrences that cause injury, occupational illness, or property damage of any kind must be reported to the NYARNG SOH Office.

H-154. Residual hazards

Hazards that are not eliminated by design.

H-155. 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.

H-156. Restricted work activity

Individual's injury is such that they are unable to perform their normal duties (for example, light duty).

H-157. Risk

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

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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.

H-158. Risk acceptability

That level of risk 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 be provided; or so restricts the performance that the assigned mission cannot executed.

H-159. Risk acceptance

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.

H-160. Risk acceptance level

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.

H-161. 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.

H-162. 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.

H-163. Risk management

A continuous process applied across the full spectrum of Army training and operations, individual and collective day-to-day activities and events, and base operations functions to identify and assess hazards/risks, develop and implement controls, make decisions, and evaluate outcomes; blends tactical, threat-based risks with accidental, hazard-based risks.

H-164. Sanitized information

Safety investigation information where, after following the established procedures, privileged safety information and the identity of an accident are not revealed.

- **a.** To sanitize a document, remove identifying information including:
 - (1) The date and location of the accident.
 - (2) Materiel identification number.
- (3) Names, social security numbers, and other personal identifying information of participants, witnesses, and investigators.
- (4) Information given to a safety investigator pursuant to a promise of confidentiality and any information derived from that information or direct or indirect references to that information.
- **(5)** Any other detail that directly, indirectly, or in aggregate identifies the accident or any individual who has given information pursuant to a promise of confidentiality.
- **b.** Some accidents, due to widespread publicity or other unique circumstances, cannot be adequately sanitized. Under such circumstances, removal of this information may be inadequate since the identity of the accident is disclosed by the unique accident sequence. This information is not sanitized and will not be released.
- **c.** When privileged safety information is sanitized, the findings, conclusions, causes, recommendations, opinions, analyses, and other indications of the deliberative processes of safety investigators, safety investigation boards, endorsers, and reviewers are no longer considered privileged. Note: Only the commander, USACR/Safety Center may release a sanitized privileged accident report.

H-165. 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 reasonability 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.

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H-166. Soldiering

Non-combat activities peculiar to military life, includes receiving instruction/training in such activities, excludes classroom training. Examples are marching, police call, formation, barracks detail, and field sanitation.

H-167. 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, machine shops, areas around convey or belts, hazardous chemical storage areas, and so forth.

H-168. Standards failure

Standards/procedures not clear or practical, or do not exist.

H-169. 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.

H-170. 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.

H-171. 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.

H-172. 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.

H-173. 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.

H-174. Tactical facilities

Prepared locations with an assigned combat mission, such as missile launch facilities, alert aircraft parking areas, or fixed gun positions.

H-175. Tactical field operations

Includes:

- **a.** Actual. An active theater or area of combat operations.
- **b.** Simulated. An operational area established for training in which combat operations are simulated.

H-176. Tolerable risk

The level of risk associated with a specific hazard below which a hazard does not warrant any expenditure of resources to mitigate.

H-177. Toxin

Toxic material of biologic origin that has been isolated from the parent organism. The toxic material of plants, animals, or microorganisms.

H-178. Training-related death

A death associated with a non-combat 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.

H-179. Unexploded ordnance

A&E 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.

H-180. Unmanned aircraft

An Army aircraft, to include aerostat balloons, operated without the possibility of direct human intervention from within or on the aircraft. It is operated by personnel on the ground or in a manned aircraft. It is the major component of an UAS. An unmanned aircraft carries a variety of payloads to include day/night cameras, weapons, and so forth.

H-181. Unmanned aircraft system

The system, whose components include the necessary equipment, data communications links, and personnel to control and employ unmanned aircraft, to include aerostat balloons.

- **a.** The UAS is composed of six primary components: the aircraft, payloads, data communication links, ground control stations, ground support equipment, and personnel to operate and maintain.
- **b.** Some accidents, due to widespread publicity or other unique circumstances, cannot be adequately sanitized. Under such circumstances, removal of this information may be inadequate since the identity of the accident is disclosed by the unique accident sequence. This information is not sanitized and will not be released.
- **c.** When privileged safety information is sanitized, the findings, conclusions, causes, recommendations, opinions, analyses, and other indications of the deliberative processes of safety investigators, safety investigation boards, endorsers, and reviewers are no longer considered privileged (only the Commander, USACR/ Safety Center may release a sanitized privileged accident report).

H-182. Unmanned Aircraft System accident

An Army accident involving a UAS, but not involving a manned DoD aircraft. Unlike a manned DoD aircraft accident, a destroyed UAS is not a Class A mishap unless the event meets the cost or injury Class A threshold.

H-183. Unmanned aircraft system groups

UAS groups are as follows:

- **a.** Group 1. Has maximum gross takeoff weight of 1-20 pounds, operates normally at less than 1,200 feet above ground level and at a speed of less than 100 knots indicated airspeed.
- **b.** Group 2. Has maximum gross takeoff weight of 21-55 pounds, operates normally at less than 3,500 feet above ground level and at a speed of less than 250 knots indicated airspeed.
- **c.** Group 3. Has maximum gross takeoff weight less than 1,320 pounds, operates normally at less than 18,000 feet above ground level and at a speed of less than 250 knots indicated airspeed.

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d. Group 4. Typically weighs more than 1,320 pounds and normally operates below 18,000 feet mean sea level at any speed.

e. Group 5. Typically weighs more than 1,320 pounds and normally operates higher than 18,000 feet mean sea level at any speed.

H-184. 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, DA civilians, 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.

H-185. 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).

H-186. Work-related injuries

Injuries or occupational illnesses incurred while performing duties in an on-duty status.

H-187. Worst single-hazard risk

Consequence/probability pair representing the highest system risk.

H-188. Vesicant agent

Blister agent.

Special Abbreviations and Terms

GA Tabun

GB Sarin

GD Soman

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GF Cyclosarin

H Levinstein mustard

HD Distilled mustard

HT Mustard T-mixture

L Lewisite

VX O-ethyl S-(2-Disopropylaminoethyl) methylphosphonothiolate

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