Fort Knox Regulation 385-10

Safety

Installation Safety Program

Headquarters
United States Army Installation
Fort Knox, Kentucky 40121
27 February 2018

UNCLASSIFIED

Summary of Change

FK 385-10
Installation Safety Program

This major revision, dated XX October 2017—

- Updates explosives safety program roles and responsibilities (para 7-2).
- Clarifies Army contract safety policy (para 19-2).
- Clarifies Army oversight and inspections of contractor operations (para 19-3).
- Updates explosives safety management policy (para 7-4).
- Establishes requirements for explosives safety management programs (para 7-1).
- Clarifies Army Motor Vehicle Accident Prevention Policy (para 3-1).
- Clarifies criteria for accident avoidance training in the licensing process (para 3-1b).
- Mandates training under the progressive motorcycle program (para 3-4 c).
- Establishes requirements for motorcycle sustainment training (para 3-4 c(7)).
- Establishes criteria for driver improvement and remedial driver training (para 3-1c).
- Clarifies and sets priority for attending motorcycle training (para 3-4c).
- Defines the progressive motorcycle program (para 3-4c).
- Establishes criteria for Soldiers to operate a motorcycle (para 3-4c(7)).
- Identifies acceptable motorcycle training courses for Soldiers operating motorcycles (para 3-4c).
- Identifies and establishes criteria for motorcycle refresher training (para 3-4*c*(4).
- Establishes criteria for accomplishing motorcycle training (para 3-4).
- Establishes criteria for completing motorcycle sustainment training (para 3-4*c*(7)).

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XX October 2017

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Effective 27 February 2018

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INSTALLATION SAFETY PROGRAM

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Major General, USA
Commanding

History. This publication is a major revision. The portions affected by this major revision are listed in the summary of change.

Summary. This regulation establishes policies and procedure for the safety and health of personnel on Fort Knox.

Applicability. This regulation applies to all Fort Knox military units and civilian directorates, all partner commands, Reserve and National Guard personnel and unit training on Fort Knox and to personnel and facilities of contractors conducting work on the installation.

Proponent and Exception Authority. The proponent for this regulation is the Commanding General, Fort Knox. The proponent has the authority to approve exceptions or waivers to this regulation that are consistent with controlling laws and regulations.

Army Management Control Process. This regulation is approved for public release to Fort Knox and its subordinate units. Local reproduction is authorized.

Supplementation. Local supplementation of this regulation is prohibited unless specifically approved by the Installation Safety Office.

Suggested Improvements. The proponent of this regulation is the Office of the Garrison Commander, Installation Safety Office. Users are invited to send suggested improvements to the Provost Marshal Office, DES, ATTN: IMKN-ES, Fort Knox, Kentucky 40121 on DA Form 2028 (Recommended Changes to Publications and Blank Forms).

Distribution. This publication is available in electronic media only and is intended for command distribution level A.

* This regulation supersedes Fort Knox Regulation 190-1, 25 May 2010 and Fort Knox Regulation 190-5, 26 May 2010

Summary of Change-continued

- Recommends completion of safety training for all terrain vehicles and off-road motorcycle (para 3-6).

- Sets command responsibility for wearing personal protective equipment (para 3-4c(7)).

- Identifies required personal protective equipment when operating motorcycles (para 3-4c(7)).

- Establishes criteria for operating other types of motorcycles (para 3-7).

- Updates policy on accident reporting for Class D and E accidents (para 2-4).

- Adds core explosives safety training requirements for career program-12 (appendix F).

- Updates policy for radiation safety management and applicable safety programs (chap 21)

- Clarifies policy for use of hand-held items (cell phones) while operating vehicles (para 3-5).

- Training and using 15-passenger vans (para 3-1c(11)).

- Clarifies identification and abatement of hazards (para 9-3).

- Updates conditions required for a garrison or tenant activity to execute a radiation safety function (chap 21).

- Makes additional administrative changes (throughout).

- Makes additional rapid action revision changes (throughout).

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Chapter 1
Introduction

1-1. General
This regulation applies to all Fort Knox activities, direct reporting units, tenants, and garrison directorates.

1-2. Purpose
a. This regulation prescribes Installation policy, responsibilities, procedures to protect, and preserve Army and the Department of Defense (DoD) personnel and property against accidental loss and injury. It provides for public safety incumbent to Army operations, activities, healthful workplaces, procedures, and equipment.

b. This regulation mandates Installation Safety Program policies, procedures and guidelines into one comprehensive safety program for all Installation operations and supported special safety programs normally conducted by tenant organizations and overseen by the Installation Safety Office (ISO) (Army Traffic Safety Training Program (ATSTP), Radiation, Ammunition & Explosives (A&E), and Confined Space Program). This regulation provides new policy on Army Safety management procedures with special emphasis on responsibilities and organizational concepts. It implements requirements of the Williams-Steiger Occupational Safety and Health Administration (OSHA) Act of 1970; Under Executive Order 12196 Occupational safety and Health Programs (OSHP) for Federal Employees; Title 29, Code of Federal Regulations (CFRs) Part 1960 (Basic Program Elements for Federal Employees OSHA); Department of Defense Instruction (DODI) 6055.01 OSHP; Safety and Occupational Health (SOH); Installation Management Command (IMCOM) Regulation 385-10.

1-3. References
Publications, forms and abbreviations/terms are listed at appendix A.

1-4. Policy
Leaders, managers/supervisors, at all levels must pursue a vigorous accident prevention program that will minimize accidental manpower and materiel losses thus providing more efficient use of resources. Decision makers at all levels will employ the Army's process to effectively preclude unacceptable risk to the safety of personnel and property. Accidental losses affect combat readiness and mission degradation. Positive action will be taken to control these losses through the process, training, education, and aggressive leadership involvement. The Garrison program requirements are in chapter 14. Labor management relations and responsibilities regarding consultations, negotiations, and union management agreements. Applicable laws, rules, or government-wide regulations will be fulfilled. The following principles will be effectively integrated into all Installation plans, programs, decision making processes, operations, and activities:

a. Decision makers at every level will employ the Army process, as specified in chapter 14 of this regulation to avoid unnecessary risk/loss to missions, personnel, equipment, and the environment.

b. The acquisition of materials, equipment, facilities, and systems will maximize the use of engineering design to preclude unnecessary risk and control residual risks.

c. Life cycle safety considerations will be considered in the acquisition, use/disposal of chemicals, hazardous materials so as not to endanger/compromise public health, safety, and the environment.

d. Appropriate action will be taken to expeditiously correct nonconformities with mandated standards, workplace deficiencies, hazards, and accident causes.

e. Performance standards for military/civilian managers/supervisors will include accident prevention, and Occupational Health (OH) responsibilities as a rating element. The success or shortcomings of managers or supervisory personnel in performing SOH responsibilities will be considered in Army civilian employee performance appraisals, Officer Evaluation Reports (OERs), and Non-Commissioned Officer Evaluation Reports (NCOERs) in accordance with DODI 6055.1.

1-5. Responsibilities.

a. The Garrison Commander (GC) exercises overall responsibility for the Garrison Safety and Accident Prevention Programs. The Garrison Safety Manager is designated by the Senior Commander as the Senior Installation Safety Director for Fort Knox. The Senior Safety Director will be responsible for planning, management and execution of the following safety management programs and functions.

b. **The US Army Garrison/Installation Safety Office will—**

(1) Provide for the establishment, implementation of plans, policies, and procedures for conducting safety programs at all levels of command. Assist directors, supervisors/managers in determining the amount, and qualifications of personnel necessary to ensure an effective accident prevention program.

(2) Provide technical and professional assistance to eliminate or control unsafe behavior and unsafe environments within the workplace.

(3) Determine the need for, obtain, and distribute safety promotional and educational materials.

(4) Review operating procedures, manuals, directives, other instructions to ensure the incorporation of safe practices and safe physical standards.

(5) Assist in reviewing plans for proposed demonstrations, exhibits to ensure the safety of Army personnel, and the public.

(6) Maintain close liaison with other staff agencies, military services, along with federal and civilian agencies, in all relevant safety matters.

(7) Conduct surveys and inspections of USAG MEDIUM to HIGH Risk activities to include review of effectiveness of accident prevention programs.

(8) Conduct Standard Army Safety and Occupational Health Inspections (SA-SOHI) of USAG work sites categorized as MEDIUM to HIGH risks operations.

(9) Implement and manage all aspects of the Army Safety Program for the USAG as outlined in Army Regulation (AR) 385-10, Army Safety Program and other pertinent safety regulations, messages and Department of the Army (DA) pamphlets.

(10) Will conduct seasonal and special campaigns and initiatives. This includes holiday safety messages, fall/winter and spring /summer campaigns, safety stand-down events and provide safety support for other holiday events.

(11) Implement and manage the Garrison safety related regulations, Explosives Safety Program; Range Program, Radiation Protection Program, the Army Traffic Safety Training Program, and provide oversite on partnered SOH Programs.

(12) Review and analysis Fort Knox accident data and provide recommendations for corrective measures.

(13) Collect, analyze/disseminate data concerning the accident trends of the Installation, prepare reports of safety activities, and conduct studies as required by higher authorities.

(15) Investigate Class A and B accidents on Fort Knox. Ensure they are reported through the appropriate chain of command to the US Army Safety Center IAW AR 385-10 and DA PAM 385-40.

(a) Prepare and publish Accident Investigation Board appointment orders for those accidents which the Senior Commander is court-martial convening authority.

(b) Coordinate and provide support for appointed centralized and installation level accident investigation boards.

(16) Provide accident prevention material, training and technical assistance in accident investigation, reporting to ensure accuracy, and completeness. (18) Coordinate with Preventive Medicine Service (PMS) and United States (U.S.) Army Medical Center (MEDCEN) to identify and abate existing or potential occupational health hazards in the workplace.

(17) Publicize channels for reporting unsafe or unhealthful conditions.

(18) The Installation Safety and Occupational Health Advisory Council (SOHAC) will be chaired by the Garrison Commander or his designee and conducted semi-annually as directed by the SC commander.

(19) Fulfill and comply with labor management relations responsibilities regarding consultation, negotiation, union/management agreements, applicable laws, rules, and government-wide regulations.

(20) Mentor and develop assigned Garrison Safety and Occupational Health Specialists, Collateral Duty Safety Officer (CDSO) and Additional Duty Safety Officer (ADSO) personnel to ensure competence while performing these duties.

(21) Assist in providing safety support for range and training complex activities in the event of an accident or mishap.

(22) Request the assistance of MEDCOM for the support of Garrison accident investigations.

(23) Participate in the design review process for new and existing facilities.

(24) Will be the SOH subject matter experts (SME) advisors to the contracting activity for contract clause inclusion, accident and safety plan review, and support to the Contracting Officer Representative (COR) when requested by the contracting activity.

c. **Directorate of Public Works (DPW) will—**

(1) Consolidate deficiencies, where correction exceeds local capability, and into projects for DA funding.

(2) Establish internal procedures in accordance with Fort Knox Regulation 420-27 (Care, Maintenance, and Alterations of Facilities) to assure work requests identified by ISO as imminently dangerous Risk Assessment Category (RAC) 1 or 2 are corrected immediately RAC 1 10 days, RAC 2 30 days, RAC 3 90 Days.

(3) Provide the ISO a quarterly status report of safety deficiency abatement status.

(4) Ensure compliance with OSHA standards and applicable codes.

(5) Ensure prevention construction infringement per DA Pam 385-64 (Ammunition and Explosives Safety Standards) on the Ammunition Supply Point (ASP), Godman Army Airfield (GAAF), or other approved ammunition site plan locations.

(6) Support the safety program within their respective areas and provide necessary assistance to enhance the overall safety effectiveness of the installation.

(7) Ensure that Department of Defense (DD) Form 1348-6 (DoD's Single Line Item Requisition System Document) or DA Form 3953 (Purchase Request and Commitment) or equivalent web based electronic purchase request for all hazardous chemicals or materials include the required information per AR 700-141, Hazardous material Information System.

(8) Conduct or contract Lightning Protection System testing as required by DA Pam 385-64 and IMCOM Regulation 5-13, National Fire Protection Association (NFPA) 70-E. Provide results of the testing to the ISO.

d. **Directorate of Plans, Training, Mobilization and Security (DPTMS) will—**

(1) Report incidents and accidents in accordance with established Significant Incident Reporting (SIR) procedures.

(2) Initiate range waivers by the Range Support Officer in accordance with AR 385-63, Range Safety, and DA PAM 385-63, Range Safety.

(3) Ensure risk assessments are conducted for live fire events.

(4) Ensure that a comprehensive range safety program is established.

(5) Disseminate relevant weather warnings and updates to units in the field.

(6) Ensure range modernization plans are reviewed for safety requirements in accordance with AR 385-63 and DA PAM 385-63.

(7) Report any and all accidents/incidents to the ISO.

e. **Directorate of Emergency Services (DES) will—**

(1) Support ISO investigations to include providing necessary reports (see chapter 2).

(2) Assist in correcting potential traffic hazards.

(3) Provide and/or keep the ISO abreast of fire incidents.

(4) Keep the ISO abreast of any and all incidents/accidents.

f. **Civilian Personnel Advisory Center (CPAC)**

(1) Advises of administrative penalties for civilian abuses of any of the required programs contained within this regulation.

(2) Coordinate with ISO on all aspects of the Federal Employees' Compensation Act (FECA) program in order to reduce unwarranted and lengthy lost workday claims.

(3) Consult with ISO during the negotiation of all safety aspects of employee organization contracts.

(4) Ensures union notification of any change in policy, practice, or working conditions provided by ISO.

(5) Provide the ISO quarterly information regarding lost time, FECA claims, and continuation of pay (COP) costs.

(6) Provide the ISO a copy of the civilian personnel strength report monthly.

g. **Mission & Installation Contracting Command (MICC) will—**

(1) Require accident prevention and safety plans, risk assessment/job hazard analysis with commercial contracts for review and concurrence by the ISO.

(2) Ensure contractors are advised during pre-performance conferences that all accidents involving contractor employees must be reported promptly to the contracting officer.

(3) Assist in the enforcement of contract safety requirements through close coordination with the ISO, DPW inspectors, COR and contract administrators.

(4) Contractors needing to bring equipment containing radioactive material onto Fort Knox must comply with the requirements of this regulation.

h. **Directors and Activity Chiefs will—**

(1) Act as Safety Officers for their directorate, activity and appoint CDSO's/ADSO's in writing.

(2) Appoint CDSO personnel for civilian organizations to accomplish assigned duties and responsibilities in accordance with (IAW) DA PAM 385-10, The Army Safety Program.

(3) Publicize all channels available for reporting unsafe and unhealthful working conditions, emphasizing personnel responsible for making such reports.

(4) Ensure a Job Hazard Analysis (JHA) is available for all positions to accurately identify hazards an employee may be exposed to, the requirement for wearing specific items of protective clothing and equipment/personal protective equipment (PCE/PPE); other unique safety requirements such as hazard specific safety training. Also the JHA must be added as an appendix to their safety related Standing Operating Procedures (SOPs).

(5) Include safe practices and physical standards in all directives and SOPs. Assure a comprehensive SOP is prepared and readily available for each hazardous operation. The SOPs will contain detailed operating procedures, emergency procedures, "training required", and required inspections, as well as other applicable information.

(6) Develop and implement an Accident Prevention and Low Risk Inspection Program encompassing all operations and activities under their control. Establish specific written safety goals for their organization.

(7) Include safety objectives in all Civilian employees, Civilian supervisor's performance plans, enlisted efficiency reports, and officer evaluation reports.

(8) Arrange/allocate time for all Directorate personnel to accomplish all required safety training and receive a safety orientation from the CDSO and/or supervisor within 14 days of assignment to an activity.

(9) Identify and eliminate hazardous conditions, establish safe practices and procedures consistent with the mission and motivate and instruct personnel in safe performance.

(10) Ensure compliance with all appropriate provisions of this document and referenced safety regulations.

(11) Require all supervisors to actively supervise performance of subordinates to ensure compliance with safety requirements. Require rigorous enforcement of the use of required PPE and safe practices.

(12) Appoint a safety council at directorate level. Safety councils will meet at least quarterly.

(13) Ensure job specific safety training is conducted annually and recorded.

(14) Report and investigate all accidents and close call incidents.

(15) Report unsafe work conditions to the CDSO/ISO, and input all accidents into the Army ReportIt online system.

(16) Provide the ISO with Estimated Cost of Damage (ECOD) reports on all facilities, equipment and vehicles involved in accidents.

i. **Directors or equivalent, of organizations that are primarily administrative in nature with no extremely high, high, or moderate risk activities will—**

(1) Use this regulation as their safety SOP.

(2) Appoint an ADSO/CDSO in writing.

(3) Report and investigate all accidents and close call incidents.

(4) Report unsafe work conditions to the CDSO/ISO.

(5) Not be required to have a quarterly directorate safety council. However, they are required to participate in the Installation Command Safety Council.

(6) Inspect work areas on an annual basis. Since these are low-risk work areas, quarterly inspections are not required. Inspection results will be maintained for 1 year. Unsafe conditions will be handled per requirements in chapter 9.

(7) Provide units low hazard facility inspections by the 5th day of the month following each quarter to the USAG Safety office. Provide units low hazard facility inspections by the 5th day of the month following each quarter to the USAG Safety office.

(8) Provide a list of all unit buildings inspected in the quarter prior as well as their hazardous log (HAZLOG) by the 5th of the month following each quarter to the USAG Safety office

(9) Provide safety training at least semi-annually to include Seasonal Safety Installation Campaign. Training records will be maintained for 1 year.

(10) Ensure that the Privately Owned Vehicle (POV) Inspection Checklist are made available to all Civilian DOD employees.

(11) Ensure a JHA is available for all positions to accurately identify hazards an employee may be exposed to. The requirement for wearing specific items of PCE/PPE; other unique safety requirements, such as hazard specific safety training. Also the JHA must be added as an appendix to their safety related SOPs.

j. **Supervisors will—**

(1) Perform a Deliberate Risk Assessment Worksheet (DRAW) and JHA to ensure the work environment complies with applicable safety standards and regulations. Those personnel under their supervision and perform all operations in the safest possible manner consistent with the mission. Assure employees under their supervision observe and comply with appropriate safety and occupational health rules and regulations, including the use of PPE provided for their protection. Supervisors will set the example in using PPE.

(2) Be responsible for incidents/accidents prevention to the same extent as for production, services.

(3) Control unsafe acts or conditions that may be conducive to incidents/ accidents; procure, maintain in sanitary working condition, require use of PPE and devices necessary to protect employees from injury.

(4) Report unsafe workplace conditions to ISO for assistance in correction. Where DPW support will correct such deficiencies, request service order or prepare/submit DA

Form 4283 (Facilities Engineering Work Request) IAW FK 420-27 and provide any/all updates of abatement status to the ISO.

(5) Promptly evaluate and take action as required to correct hazards reported by employees or identified through accident investigation. Reprisal action will not be initiated or supported against employees who identify hazards, raise safety concerns, or engage in authorized safety and occupational health activities

(6) Orient all newly assigned personnel concerning the hazards inherent in their job/work environment through review of the JHA for their duty position, documented as part of initial counseling. Conduct regulatory training concerning specialized, general hazards in the workplace, and methods for avoiding accidents.

(7) Report promptly all injuries IAW DA Memorandum dated 30 July 2015, Migration to Employees' Compensation Operation and Management Portal (ECOMP) for Appropriated Fund Civilians Workers' Compensation Claim Filing. Conduct a comprehensive factual investigation of all on-duty injuries/accidents. Training is provided on-line at www.ecomp.dol.gov.

(8) Ensure facts on civilian compensation forms are fully documented and accurately reported.

(9) Provide light duty for employees injured on the job when indicated by a competent medical authority.

k. **Collateral Duty Safety Officers/Additional Duty Safety Officers will—**

(1) Complete the on-line CDSO or ADSO course and complete the local safety training course within 90 days of appointment.

(2) Become familiar with Army and OSHA safety regulations, safety requirements for the unit, principles of incidents/accidents prevention, and safety aspects included in SOPs, field manuals, technical manuals, etc.

(3) Interpret safety policies, procedures for the director, supervisors, and subordinate safety personnel.

(4) Supervise and/or conduct quarterly safety inspections of organizational facilities; giving particular attention to recurring serious hazards and to new or varied operations. Follow-up to ensure corrective actions are taken and any deficiencies are entered on the HAZLOG.

(5) Coordinate with supervisors to provide technical assistance to eliminate unsafe work practices.

(6) Maintain a safety continuity binder with a minimum of; inspections, training, work orders, incidents/accidents, safety messages, and JHA's.

(7) Maintain safety records on all near misses/injuries and analyze the activities accident experiences to determine incidents/accident patterns, then develop and implement countermeasures.

(8) Provide the director/chief with periodic safety progress reports and information concerning incidents/accidents.

(9) Provide assistance to directors/chiefs in conducting periodic briefings with supervisors and employees regarding the objectives of the safety program, methods of attaining those objectives, and the degree of success expected.

(10) Determine the need for safety training materials, safety promotions, and safety awards.

(11) Input all accidents into the online Army Accident Report It System at https://reportit.safety.army.mil/. Responsibilities listed above are for the overall general safety program. Responsibilities for specific areas or activities are provided in subsequent respective chapters addressing that subject.

Chapter 2
Reporting and Investigation of Army Accidents.

2-1. General.
Army policy is to investigate and report Army accidents to prevent like occurrences. Accident reporting and investigating will be performed per the requirements of AR 385- 10, DA PAM 385-40, Army Accident Investigation and Reporting, and this regulation.

2-2. Army Accident/Incidents
An Army incident/accident is defined as an unplanned event, or series of events, which results in one or more of the following:

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

2-3. Responsibilities
The director or supervisor directly responsible for the operation, material, or person(s) involved in an accident will:

a. Report all accidents and near misses to the ISO within 24 hours or as soon as possible with the following exceptions;
(1) Work-related fatalities must be reported immediate.
(2) Accidents or occupational illness that result in an inpatient hospitalization, amputation, eye loss or loss of sight injuries must be reported immediately.
b. Investigate all accidents in order to identify all factors (mistakes, errors, failures, and/or system inadequacies which may have caused or contributed to the accident.
c. Identify and implement corrective actions in order to prevent or minimize the likelihood of similar recurrences.
d. Submit an electronic DA Form 285-AB, Abbreviated Ground Accident Report (AGAR) or DA Form 285, Technical Report of US Army Ground Accident on each accident that meets reporting classification requirements per AR 385-10, DA PAM 385-40, and as advised by the ISO. This accident report shall be submitted via the automated Army Accident Reporting System (ReportIt) in accordance with IMCOM Regulation 385-10.
e. Accidents resulting in a fatality, permanent or partial disability, or property damage of $500,000 or more, and special case accidents as determined by the Garrison Com-

mander and Director of Installation Safety Office will be investigated by an accident investigation board appointed locally or from the U.S Army Combat Readiness Center (USACRC). Accident investigation boards will be convened in accordance with AR 385-10 and DA PAM 385-40 for all Class A and B accidents.

2-4. Accident Classes

a. Class A accident. An Army accident in which—

(1) The resulting total cost of property damage is $2 million or more;

(2) An Army aircraft is destroyed, missing, or abandoned; or

(3) An injury and/or occupational illness results in a fatality or permanent total disability.

b. Class B accident. An Army accident in which—

(1) The resulting total cost of property damage is $500,000 or more, but less than $2 million;

(2) An injury and/or occupational illness results in permanent partial disability; or

(3) When three or more personnel are hospitalized as inpatients as the result of a single occurrence.

c. Class C accident. An Army accident in which—

(1) The resulting total cost of property damage is $50,000 or more but less than $500,000;

(2) 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

(3) Disability at any time (that does not meet the definition of Class A or Class B and is a day(s)-away-from-work case)

d. Class D accident. An Army accident in which—

(1) The resulting total cost of property damage is $20,000 or more but less than $50,000;

(2) A nonfatal injury or illness results 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

(3) A work-related tuberculosis case.

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. All aviation accidents refer to AR 385-10 chapter 3.

2-5. Non-reportable Occupational Illnesses and Injuries.

See AR 385-10, chapter 3 for definitions and exclusions.

2-6. Actions.

a. Directors will initiate the following actions upon learning of a Class A or Class B accident.

(1) Immediately notify the Military Police Desk Sergeant at 911 (if this has not already occurred and the Installation Operation Center (IOC) after regular duty hours. At a

minimum, notification should include the information below; however, notification will not be delayed because certain elements are unknown.

(a) Date and time of accident.

(b) Name, social security number, and unit.

(c) Extent of injuries or damage.

(d) Type and location of accident and disposition of injured persons and damaged property.

(e) Hazardous or sensitive materials involved.

(f) Weather conditions at time of the accident.

(g) Brief synopsis of the event. Include alcohol/drug use, if applicable. For motor vehicle accidents, indicate if individual was wearing seat belt or motorcycle PPE and had received accident avoidance training and/or motorcycle rider training.

(2) Follow the protocol laid out in DA Pam 385-40. As well as ensure the accident site is secured immediately in coordination with Military Police Investigators (MPI) Criminal Investigation Division (CID) personnel, and remains secured until released by Military Police and ISO personnel.

b. The IOC will immediately notify the Director of Safety ISO when notified of an accident after regular duty hours.

c. DES will—

(1) Dispatch Emergency Services.

(2) Provide initial accident site security.

d. MEDCEN will—

Provide evacuation and treatment of injured personnel.

e. DPW will—

(1) Minimize environmental damage. Cleanup of oil, fuel, other hazardous material spills will be accomplished after the site has been released, and ISO will be notified.

(2) Provide, as required, a suitable, secure area for storage of wreckage, and perform technical inspection of wreckage.

f. ISO will—

Notify the Garrison Commander and his deputy, and then the following as required of a Class A or B accident:

(1) USACRC.

(2) IMCOM.

(3) OSHA.

(4) Other concerned agencies.

2-7. Privileged Information.

Accident reports and associated documents are privileged information and cannot be used as evidence or to obtain evidence in any disciplinary action per AR 385-10. The ISO will be authorized to view/collect accident information, videos, and witness statements for the purpose of conducting accident investigation to determine cause of accident.

2-8. Safeguarding Personally Identifiable Information (PII).

Individuals collecting and handling PII and accident information must ensure that any personal information contained in a report of an accident, of which they have access to

and are using to conduct official business, shall protect that information so that the security and confidentiality of the information is preserved. Individuals with access to this information must not disclose any personal information contained in any report of an Army accident, except as authorized by Army or DoD regulations. Personnel willfully making such disclosure when knowing that disclosure is prohibited are subject to possible criminal penalties and/or administrative sanctions.

2-9. Review of accident investigation reports.
All accident investigation reports shall be routed through the automated reporting system as follows.

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

b. The installation-level safety manager will ensure that the entire accident report is prepared in Reportit per instructions, and accident data is analyzed for prevention purposes.

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

Chapter 3
Prevention of Vehicle Accidents.

3-1. Driver Training.
All Army personnel Soldiers and Civilians required to drive an Army Motor Vehicle (AMV), including both Army owned and leased vehicles, must meet the requirements of the ATSTP as outlined in AR 385-10 and AR 600-55.
The training is established to reinforce a positive attitude toward driving, individual responsibility, and correct response to routine and emergency driving situations. Each progressive traffic safety training course builds on the previous module to reinforce the Army's expectations for a safe Army driver.

a. Intermediate Traffic Safety Training Course IIIA. All newly assigned Soldiers less than 26 years of age will receive intermediate traffic safety training that reinforces the initial traffic safety training course. Other personnel maybe required to attend the training as deemed necessary by the local command.

b. Accident Avoidance Course. Anyone operating an AMV will have first completed the online accident avoidance course as part of licensing procedures. The training in-

cludes RM, personal responsibility, driving hazard awareness, defensive driving techniques, accident avoidance, and MC safety. The course is located on the Army Learning Management System at https://www.lms.army.mil.

c. Driver improvement/remedial drivers training. To reinforce positive driving behaviors commanders will enforce-

(1) Remedial Drivers Training is required for all military or civilian personnel who,

(a) While operating a Government motor vehicle have been convicted of a moving or nonmoving traffic violation; or

(b) While operating a Government motor vehicle have been determined to be at fault for a traffic accident; or

(c) Are found guilty of driving under the influence of alcohol or other intoxicants, to include illegal or prescription drugs.

(2) Fort Knox requires personnel as described in paragraph 3-1C (1) inside or outside normal duty hours, to attend a remedial driver course or lose installation driving privileges. State-approved driver improvement programs certificate may be used to fulfill this requirement where an Army standardized course is not provided.

(3) Commanders may refer Soldiers to attend remedial drivers training due to high risk driving activity. Examples of high risk driving activities may include:

(a) The accumulation of five or more traffic points over a 12-month period (AR 190–5).

(b) Warning traffic citation(s) for moving and nonmoving infraction(s);

(c) Letter(s) of counseling or reprimand for driving; or

(d) Confirmed witness statements of driving infraction(s).

(4) All personnel who are required to drive an AMV vehicle will successfully complete the online Accident Avoidance Course every four years.

(5) Drivers of Army-owned or leased buses, military police vehicles, ambulances, fire trucks, fueling vehicles, vehicles carrying hazardous cargo, crash-rescue vehicles, or other emergency vehicles must complete additional training required in AR 385-10 and AR 600-55.

(6) Organizations are responsible for completing the training.

(7) Upon completion of on-line training, certificates will be provided and are valid for four years from date of class completion. Certificates are maintained at activity level.-

(8) Optional Form 346 (U.S. Government Motor Vehicle Operators' Identification Card) will not be issued to personnel until they have completed the accident avoidance course.

(9) All Army personnel who are newly assigned to Fort Knox will complete the New comers/ Local Area Hazard Training. This training provides awareness on local driving hazards.

(10) Army Soldiers must complete required Army Traffic Safety Training Program courses IAW AR 358-10.

(11) All drivers who drive a 15 Passenger Van must complete the training at building 65 or from the ISO.

3-2. Army Motor Vehicle Seat Belts.

a. Seat belts will be inspected by the operator before use to ensure they are functional. Vehicles with damaged or nonfunctioning seat belts will not be used until repaired.

b. All personnel operating or riding as passengers in AMVs will wear installed seat belts.

3-3. Ground Guides.

Ground guides will be used in congested mixed pedestrian / vehicle non-roadway areas. Ground guides will be proficient in the use of hand and arm signals. Ground guides will walk 2 yards outside the path of the vehicle when space permits and a minimum of 5 yards in the front or rear of the vehicle they are guiding. Continuous visual contact will be maintained between the driver and the dismounted guide. Minimum of 2 ground guides, front and rear, when necessary for backing a vehicle.

3-4. Motorcycles.

a. All operators of government-owned (GOM) and privately owned motorcycles (POM) (both street and off-highway versions) on Fort Knox must be appropriately licensed to operate on Fort Knox and public highways.

b. Army Soldiers who operate a motorcycle and DA Civilian employees who operate a motorcycle in the performance of their duties will complete required progressive motorcycle training as outlined in AR-385-10, Chapter 11.

c. Mandatory motorcycle training. Under the Progressive MC Program, all Soldiers who operate a MC are required to take the following MC training:

(1) Motorcycle Safety Foundation (MSF) Basic Rider Course (BRC) or USD(I&E) endorsed, State-approved, curriculum for MC operator's safety training.

(2) Experienced Rider Course (ERC) or the MSF BRC–II.

(3) Military Sport Bike Riders Course (MSRC) or MSF Advanced Rider Course (ARC).

(4) MC refresher training (MRT) for Soldiers deployed for more than 180 days.

(5) DA Civilian employees who operate MCs in the performance of their duties will complete the training requirements of this section.

(6) Military retirees, and military Family members/dependents are not permitted to attend the Army sponsored motorcycle training.

(7) Motorcycle sustainment training. Based on the type of MC owned or operated, Soldiers are required to complete MC sustainment training within 5 years of completing an ERC/BRC–II or MSRC/ARC which consists of, at a minimum, retaking an ERC/BRC–II or MSRC/ARC. A Soldier can meet the sustainment training requirement, at no expense to the Government, by taking an Army-approved advanced level MC course. A list of courses meeting the criteria is located on the USACRC/Safety Center Web site (https://safety.army.mil).

(a) Motorcycle and all-terrain vehicle rider protection. Commanders will ensure that all individuals covered by AR 385-10 wear the following PPE while operating MCs, off-road vehicles, and ATVs on the installation and all Soldiers at any time on or off Army installations. Helmets will be certified to meet DOT Safety Standard and will be properly fastened under the chin.

(b) Eye protection. Eye protection must be designed to meet or exceed ANSI Z87.1, reference (z) for impact and shatter resistance (includes goggles, wraparound glasses, or a full-face shield (properly attached to a helmet). A windshield or fairing does not constitute eye protection.

(c) Foot protection. Foot protection includes sturdy over-the-ankle footwear that affords protection for the feet and ankles (durable leather or ballistic-type cloth athletic shoes that cover the ankles may be worn).

(d) Protective clothing. Protective clothing includes long-sleeved shirt or jacket, long trousers, and full-fingered gloves or mittens made from leather or other abrasion-resistant material. MC jackets and pants constructed of abrasion resistant materials (such as leather, Kevlar®, or Cordura®) and containing impact-absorbing padding are strongly encouraged. Riders are encouraged to select PPE that incorporates fluorescent colors and retro-reflective material.

3-5. Use of Electronic Devices.

a. Ensure that vehicle operators comply with applicable State, and local, laws that are more stringent than this policy regarding distractions while driving (e.g., using cell phones, text messaging).

b. DOD prohibits personnel while driving any vehicle on or off installations on official Government business from text messaging, using cell phones, or using other hand-held electronic devices unless the vehicle is safely parked or they are using a hands-free device, except for receiving or placing calls in performance of duties from tactical or emergency vehicles or other mission-critical duties, to include law enforcement use of in-car mobile data terminals and other in-car electronic devices. Use of hands-free devices is also discouraged as creating significant distractions from safe driving performance.

c. DOD prohibits personnel, while driving any vehicle whether or not on official Government business, from using Government-supplied electronic equipment for text messaging or other hand-held uses unless the vehicle is safely parked or they are using a hands-free device, except for receiving or placing calls in performance of duties from tactical or emergency vehicles or other mission-critical duties, to include law enforcement use of in-car mobile data terminals and other in-car electronic devices.

d. Prohibit DoD personnel, while driving any vehicle on official Government business, from wearing any listening devices other than hearing aids, single ear-piece hands-free phone devices, and motorcycle driver/passenger intercom devices where allowed by law. Use of those devices impairs driving and masks or prevents the recognition of emergency signals, alarms, announcements, the approach of vehicles, human speech, and outside noises in general.

e. Emphasize in safety guidance the increased mishap potential caused by distracting activities such as hand-held and hands-free cell phones, eating, drinking, and operating entertainment systems and global positional systems. In addition to the requirements of paragraphs 3-5a-d, drivers should be encouraged to safely park vehicles prior to completing tasks that distract attention from operating a vehicle on official Government business or off duty. Accessory equipment should be mounted in a manner that does not interfere with the driver's line of sight.

f. Use of electronic devices (headphones) is prohibited while walking/jogging on post streets.

3-6. All-Terrain Vehicles (ATV).
When ATVs are authorized for official use on-base, i.e., game wardens and Range Control personnel, all drivers will be trained and licensed. All ATV operators will complete the Specialty Vehicle Institute of America-based course. Drivers and riders will wear a helmet (which meets the American National Standards Institute standards), goggles or face shield, and full fingered gloves. As well as long trousers, long sleeve shirt or jacket, and leather over-the ankle shoes. The operator of an ATV will not carry more persons than for which the vehicle was designed.

3-7. Utility Task Vehicle (UTV).
A Recreational Off-highway Vehicle (ROV) will conform to the same requirements as an UTV. When UTVs/ROVs are authorized for official use on-post, i.e., game wardens and Range Control personnel, all drivers will be trained and licensed. Manufacturer installed safety equipment will be maintained in working order. Operators will not exceed the recommended load carrying capacity, personnel capacity, or maximum safe vehicle speed. Cargo items will be properly secured. Manufacturer provided occupant protective devices will be worn by operators and passengers. UTVs/ROVs will not be operated on public or installation roadways. Adequate head protection (DOT Safety Standard No.218) as a minimum will be used when not equipped with manufacturer installed rollover protection.

Chapter 4
Personnel Movement on Roadways

4-1. Marching. When marching along a roadway within the cantonment area, troops will march to the right side, as far off the road as possible. In all cases, troop movements will minimize interference with vehicular traffic. Supervisors of troops will be positioned to effectively control the movements of troops, and offer no impediment to traffic. Road guards will be dispatched to all intersections in sufficient time to allow vehicular traffic to halt without endangering the lives of troops or creating traffic hazards. All foot columns will comply with traffic signals. Road guards will wear reflective vest and use extreme caution by looking to the right, left, and front before entering an intersection.

4-2. Unit Formation Running.
Policies governing safety of unit formation running have been established by the installation. These policies include established controlled running routes, during the hours of 0630-0730 and prescribed physical training uniform.

a. Policy.

(1) A vehicle speed limit of 10 mph will be observed when passing formations or individual runners.

(2) Units will run only three breast for safety purposes (large length units will be broken into small groups).

(3) Request for Exception Policy to conduct unit runs off of the controlled run route, will be submitted to Garrison CSM for consideration.

b. Safety Equipment.

(1) Advanced front road guards will be placed 15 meters in front of the formation, front road guards will be placed 10 meters in front of formation, and rear road guards will be placed 30 meters to the rear of the formation.

(2) Personnel left of formation (i.e., cadence callers, unit leaders, platoon sergeant, executive officer, commander, etc.) will wear a road guard vest.

(3) Every fifth person on the left and right side of formation will wear road guard vest or reflective belt.

(4) Stragglers will be followed by vehicles with emergency flashers turned on. If vehicles are not available, cadre wearing road guard vest will follow.

(5) All road guards will be provided with reflective vests and baton flashlights.

4-3. Recreational Walking and Jogging.

All personnel using installation roadways for recreational walking and jogging will comply with the following at all times:

a. Wear reflective outer garments and or equipment during hours of limited visibility for personnel running (not in troop formation).

b. When jogging with others on the roadway, run in a single file.

c. Use sidewalks where available and practical.

d. Always walk and jog facing traffic.

e. Use extreme caution when crossing streets and at intersections. Obey all traffic signs and signals.

f. Individual walkers and runners or informal groups of walkers or runners must yield the right of way to all vehicular traffic. Walkers or runners have right of way over vehicles only at marked crosswalks.

g. **Use of headphones is prohibited while running/walking/jogging on base.**

h. Personnel will not walk, run, bicycle or jog on range roads or in the training complex without approval from Range Division, DPTMS.

4-4. Running Routes.

All runners, joggers, and walkers (both on and off duty) will comply with the routes outlined on the installation-controlled running routes map.

Chapter 5
Convoy Operations

5-1. General.

The planning and coordination involved in convoy operations require aggressive staff action. A single heavy equipment transporter or other heavy equipment transport vehicle carrying a load constitutes a convoy. In addition, four- or more wheeled vehicles, two- or more tracked vehicles, or a combination of three- or more wheeled and tracked vehicles in joint movement with a 60-minute period, constitute a convoy. Civil highway authorities set limits on vehicle weight, length, width, and height on off-post movement to ensure the safety of the highway user and preclude damage to the infrastructure. DoD policy states that no vehicle movement that exceeds legal limitations or regulations or subjects highway users to unusual hazards will be made without permission from

state, local, and/or toll authorities. Waivers for vehicle movements will be processed through the installation transportation office.

5-2. Responsibilities.

a. Unit commander will comply with the following:

(1) Ensure a DRAW and route recons are conducted before convoy departs.

(2) Ensure the safety of personnel and equipment during convoys.

(3) Designate a convoy commander.

(4) Only GOV and GSA vehicles are to be used.

(5) The use of POV are not authorized.

b. Convoy commander is responsible for the following:

(1) Be the senior ranking officer with the convoy and will be a minimum grade of E6. Convoy commander will remain with the convoy at all times.

(2) Ensure each vehicles has an assistant operator or senior occupant.

(3) Ensure proper towing equipment and procedures are adhered to.

(4) Ensure all personnel are in correct uniform and have appropriate equipment for the environment.

(5) Brief all drivers, assistant drivers, and senior occupants on the following before departure:

(a) Hazardous areas and conditions.

(b) Safe following distance.

(c) Convoy maximum speed and catch-up speed.

(d) Route including a strip map.

(e) Rest periods.

(f) Signals.

(g) Precautions taken at the halt.

(h) Actions taken for disabled vehicles.

(i) Traffic control.

(6) Ensure vehicles used to transport fuel and ammunition are placarded and loaded to regulatory specifications, equipped with the appropriate firefighting equipment, and located at the rear of the convoy.

(7) Ensure drivers operating vehicles used to transport hazardous materials receive training required by AR 600-55 and have the hazardous cargo indorsement on their license.

(8) Ensure ammunition and fuel are transported separately.

(9) Prohibit smoking within 50 feet of any vehicle.

(10) Establish and maintain communications with the lead and trail vehicles.

(11) Ensure medical personnel are scheduled and posted in the rear of the convoy.

(12) Not assign a driver to drive an AMV for more than 10 continuous hours, nor will the combined duty period exceed 12 hours in any 24-hour period.

c. The senior ranking occupant of each vehicle is responsible for the following:

(1) Safe operations of the vehicle.

(2) Ensure before, during, and after PMCS is completed.

(3) Ensure vehicle basic issue items are present on every vehicle and that warning triangles and fire extinguishers are present.

(4) Ensure radio whip antennas are tied down and covered with a protective ball at the tip.

(5) Ensure adequate seating arrangements for all vehicle occupants. Personnel will not ride on the outside of tracked or wheeled vehicles and will adhere to nametag defilade position.

(6) Inspect the operator's OF346 and DA Form 348 to ensure the operator is properly licensed, trained, and qualified to operate the vehicle.

(7) Ensure that all occupants use available restraint systems.

(8) Ensure personnel wear hearing protection as required by the type of vehicle.

(9) Prohibit headphones or earphones, which are not part of vehicle communication system, from being worn while driving Army motor vehicles.

(10) Enforce proper speed limits.

(11) Ensure ground guides are used when backing vehicles and when vision is restricted.

(12) Assist in posting reflective warning triangle along roadways to warn approaching motorists when the vehicle is halted or disabled in a location that might obstruct traffic.

d. Vehicle operators will adhere to the following:

(1) Not drive an AMV for more than 10 continuous hours, nor will the combined duty period exceed 12 hours in any 24-hour period without at least 8 consecutive hours of rest.

(2) Complete PMCS before, during, and after operations.

(3) Ensure personnel are in a safe, seated position with safety restraints worn.

(4) Ensure all hatches are locked and secured.

5-3. Convoy Control Factors.

a. Convoys as defined in para 5-1, this regulation, applies to the below requirements.

(1) Convoys will be escorted by lead and trail vehicles equipped with rotating amber warning lights (RAWLs), convoy flags, and signage for lead/follow vehicles, and two-way radios to maintain contact with each other.

(2) Under no circumstances will POVs be used as lead or trail vehicles.

(3) Personnel will not be transported in the trail vehicle, and the trail vehicle will not tow a trailer.

(4) All convoys operating off post must have a properly issued convoy permit.

b. The convoy commander will designate the staging area and starting points with the help of movement control center personnel.

c. Vehicles with headlights, taillights, brake lights, or turn signals not operational will be considered non-mission capable.

d. Vehicles not meeting safety requirements will not be allowed to move. Failure to follow instructions or any unsafe conditions will cause shut down of the operation until corrective actions are taken.

e. Track vehicles will be positioned at the rear of wheeled vehicles in a convoy. Tracked vehicles will not be used as the trail vehicle.

Note: Make every effort to convoy wheeled and tracked vehicles separately.

f. Vehicle drivers will maintain a minimum interval of 6 meters between vehicles when halted or when engines are idling. In designated training areas, tracked vehicles

will halt in a herringbone or staggered formation if the terrain permits. For administrative parking, i.e., in a holding area, vehicles will be parked side by side or in a herringbone or staggered formation but not bumper to bumper.

g. During daytime operations, maintain a minimum interval of 50 meters between vehicles in a convoy. Night convoy operations requiring blackout marker lights will maintain vehicle intervals 50 meters or as briefed by convoy commander.

h. Vehicles do not have the right of way at road or rail crossings.

i. Equip oversized or overweight vehicles in RAWLs visible to approaching and passing vehicles.

j. A senior occupant will ride in the lead and trail vehicles of a convoy.

k. Speed will be adjusted to the environmental and weather conditions.

l. All vehicles will remain in single file thorough the movement. Passing while in a convoy is strictly prohibited unless passing a disabled vehicle. Always pass a disabled vehicle with caution and at a reduced speed.

m. Use warning triangles and flashers to warn other traffic of a hazardous condition. Place triangles a minimum of 100 meters to the front and rear of the disabled vehicle and highly visible to oncoming traffic.

n. Designate a recovery maintenance vehicle to assist disabled vehicles and position near the rear of the convoy.

Chapter 6
Training Area Complex Safety

Pyrotechnics, ammunition, explosives, paintball guns, or other projectile-producing devices will not be used in the cantonment area except when approved by the Garrison Commander. All request will be routed through the Installation Safety Office.

6-1. Training Areas.

a. A Deliberate Risk Assessment Worksheet (DRAW) will be formally included in all phases of the training event. The purpose is to identify potential safety risks and prescribe precautions to reduce or eliminate hazards, which might cause an accident; e.g., sleeping plans. Daily DRAWs will be completed on all range and training area activities and a signed, dated DD 2977 will be on site.

b. A plan will be developed to ensure that all personnel know what to do in the event of severe weather (tornado, lightning, etc.).

c. Personnel will not erect tents or sleep in the open near roads, trails, or other areas where vehicles might travel.

d. Vehicles and equipment will be thoroughly inspected and safety deficiencies corrected and operators will be trained and licensed before the exercise. No untrained, unlicensed personnel will operate vehicles or equipment.

e. Flammable materials will be stored and used properly. Gasoline will not be stored inside buildings or tents, nor will it be used as a cleaning agent or solvent. Flammable liquids will be stored a minimum of 50 feet from tents and vehicles.

f. Generators, refueling vehicles, and electrical equipment will be properly bonded and grounded.

g. Operation of kitchen equipment, M2 burners, generator equipment, lanterns, and related equipment will be restricted to trained and licensed personnel. The area around the equipment will be cleared of flammable and combustible materials to prevent ignition.

h. Firearms and ammunition will be strictly controlled. All ammunition residue will be turned into Muldraugh Ammunition Storage Area (MASA).

i. Vertical antennas will be located a distance of at least twice the antenna's height from power lines to preclude contact during assembly or disassembly.

j. Open fires are not allowed in the training complex.

k. All range roads are controlled access roads and restricted to authorize personnel only. Traffic is limited access to "Required Personnel Only" east of Baum Range. The only other traffic to this point is limited to persons who fish at the DMWR Douglas Lake, which is south of 7th Armor Division. Signs are posted west of Baum Range.

6-2. Heaters.

a. The use of personally owned, electrical, or non-vented combustion-type heaters is prohibited. Only approved heaters will be used. Approval will be obtained from the Fort Knox Fire Department and the user will maintain a copy of the approval.

b. Electric or other domestic type space heaters will not be used or installed without specific written approval. Government-issue tent stoves will not be used in buildings. These stoves may be used in tents, if properly installed.

c. Before use of any portable heater, commanders will ensure that the following is accomplished:

(1) A written SOP that embodies the principles of this regulation is present.

(2) Heaters are set up by competent personnel familiar with leak test procedures. Only personnel trained, tested, and licensed per AR 600-55 will operate heaters.

(3) Each heater is inspected by the responsible unit fire or safety representative.

(4) Each heater is set up, fueled, used, and maintained per applicable TM. Only fuels approved for use and specified in the applicable TM will be used. Different types of fuels will not be mixed.

(5) Heaters are vented to the outside of the tent, structure, or shelter using the vent pipes provided with the heater.

(6) All heaters are equipped with an emergency fuel shut-off.

(7) Heaters are set up on a firm and level fireproof base located in a marked area free of clothing or combustible material. A 4-foot area around the heater and vent pipe will be maintained clear of combustible material.

(8) A fire watch is on duty any time solid or liquid fueled heaters are in use. The fire watch will be briefed on procedures for firefighting with appropriate extinguished agent and early recognition of signs of carbon monoxide (CO) poisoning.

(9) Heaters are not operated while unattended.

(10) If the fuel tank is a separate component of the space heater, it will be located on the outside of the tent or shelter and marked with the type of fuel it contains. Fuel lines will be protected from damage; under no circumstances will heaters be operated with fuel line leaks.

d. Adequate ventilation will be provided for all types of fuel-powered equipment to prevent accumulation of CO. CO detectors are not to be used in a field environment, are not designed or proven for outdoor use, and do not have a means for calibration. CO detectors used in an outdoor environment provide a false sense of safety and early warning.

6-3. Bivouac Areas.

a. Vehicles will not be operated in the bivouac area without a ground guide.

(1) Ground guide must remain with the driver's field of vision at all times.

(2) During hour of darkness ground guides must have illumination to carefully search the ground in the vehicle's path.

(3) Ground guides must ensure they do not blind the driver by shining lights directly at them.

b. Vehicle parking shall be in designated parking areas only. Transmissions shall be in gear or the park position, and the emergency brake set with wheel chocks in place.

c. Soldiers will not sleep inside vehicle cabs, under, on top of, in front of or behind vehicles, and not within 6 feet of the side of vehicles.

6-4. Pyrotechnics. The following policy will be adhered to when pyrotechnic simulators are used:

a. The issue, use, and handling of simulators are restricted to trained officers and NCOs and designated civilians. Training will, as a minimum, include the proper use, hazards associated with, standoff distances, proper PPE, and the training value of blanks and simulators. Each device will be demonstrated to show how it functions and how unsafe employment may cause injury. **Cadets and other untrained personnel will not handle simulators.**

b. All training officers and NCOs associated with a field exercise where simulators are used will receive a safety briefing beforehand on correct throwing procedures, potential hazards and precautions, and misfire and dud procedures. All other personnel participating in the exercise will receive the same briefing even though they are not using or handling simulators.

c. Follow instructions when using the simulators and ground burst projectiles since certain restrictions and constraints apply.

d. The use of aerial pyrotechnics in Training Areas 8, 9, 10, 11, 12, 13 and 14 are prohibited; however, ground pyrotechnics are authorized.

e. All pyrotechnic use in the training complex will be coordinated with Range Control.

f. All dud pyrotechnics will be reported to Range Control.

g. PPE will be worn at all times when handling all pyrotechnics.

6-5. Blank Small Arms Ammunition. The following requirements will be adhered to when firing blank small arms ammunition.

a. Blank firing attachments will always be used.

b. The minimum safe distance for unprotected personnel from small caliber ammunition is 15 feet.

c. Approved single hearing protection will be worn.
d. During force-on-force training, approved eye protection will also be worn.

6-6. Smoke. The following precautions will be followed for all smoke training, including hexachlorophene, high explosive, white phosphorous, plasticized while phosphorous, fog oil, red phosphorous, colored smoke, and diesel smoke.

a. Personnel participating in exercises, which includes the use of smoke, will carry the protective mask.

b. Personnel will mask for the following:

(1) Before exposure to any concentration of smoke produced by smoke grenades, smoke pots, or metallic powder obscurants.

(2) When passing through or operating in smoke such as smoke blankets and smokes curtains.

(3) When passing through or operating in a smoke hazard and the duration of exposure will exceed 4 hours.

(4) Anytime exposure to smoke produces breathing difficulty, eye irritation, or discomfort. Such effects in one individual will serve as a signal for all similarly exposed personnel to mask.

(5) When using smoke during training while operating in enclosed spaces. Care must be taken not to enter spaces where oxygen has been displaced because the protective mask is not effective in oxygen deficient atmospheres.

(6) Smoke generator personnel will mask.

c. Smoke will not be used when it will obscure main roads of travel on the installation.

d. The use of smoke within the cantonment area is prohibited.

6-7. Non-standard Training.

a. Units planning to conduct non-standard training will submit detailed plans to the Installation Safety Office for review and comment before implementing the training.

b. The plans submitted for review will include, as a minimum, a description of the training to be conducted, site location, references used to develop the training plan, and a DRAW.

6-8. Civilian Visitor.

a. AR 385-63 does not permit civilian visitors or other non-DoD personnel to operate military vessels, aircraft, vehicles, and crew-served weapons. Also, throwing live grenades, use of pyrotechnics, grenades, participating in live-firing in a shooting house or maneuver ranges when units are maneuvering, fast rope/rappelling from helicopters/special purpose insertion extraction rigging, and parachuting. These prohibitions are effective regardless of how closely civilian visitors are supervised.

b. In addition to the regulation's prohibitions, civilian visitors to Fort Knox are normally precluded from the following:

(1) Operating ground support equipment such as winches, turrets, and ammunition doors.

(2) Negotiating or using all Confidence/Obstacle Courses, Teamwork Development Course, Zussman MOUT facility, or the rappel tower. See waiver approval process described below for community relations or official visitor programs.

c. Civilian operation of other types of equipment including small arms, must be done safely under the direct supervision of a DOD civilian or military personnel per prescribed policies and regulations; military commanders/directors at the LTC level can approve these events. Approval of the Installation Range Control Officer and authorizing commander must be in writing and based upon a thorough DRAW and detailed written description of activities to be conducted.

d. Waiver and Exception to Policy Process. Fort Knox ranges host many recruiting, family support, public affairs, and educator programs. It may be appropriate to leverage military training facilities for such programs. Waivers permitting use of facilities otherwise restricted may be approved only after a comprehensive safety and risk assessment and evaluation. Waivers may be approved by the Senior Commander who may also delegate waiver approval authority to the Chief of Staff or Garrison commander. In instances where established policies or regulations do not cover a proposed situation, approval authority is with the Senior Commander or designee. Requests for approval will be submitted through the Installation Safety Office and Range Control Officer for review.

e. Civilian contractors and DOD civilians who must operate military equipment as part of their duties are not considered civilian visitors for the purpose of the regulation and therefore not affected by this regulation. Contracting Officer Representatives and supervisors of civilian contractors will also enforce compliance with this regulation.

f. Junior ROTC (JROTC) Programs will follow guidance in USACC policies and regulations.

g. This moratorium is not intended to restrict civilian visitors from observing Army training, demonstrations, static displays, and like activities. The intent is to ensure civilian visitors are protected from perceived hazards associated with high-risk operations as determined by Range Control and Installation Safety Office.

6-9. Clearing Barrels.

a. Clearing Barrels will be used at commander's discretion.

Note: IAW AR 385-63, paragraph 1-9, Duties of the Range Safety Officer include that the RSO verifies, upon completion of firing or firing order, to the OIC that all weapons and weapons systems are clear and safe before allowing the removal of weapons from the firing area.

b. If clearing barrels are used, commanders will develop and implement clearing barrel procedures, and enforce their proper use, to include:

(1) Provide clearing barrels at designated clearing locations.

(2) Provide direct supervision when using clearing barrels.

(3) Commanders will implement procedures to monitor clearing barrels for loose ammunition.

c. Clearing barrels will be a minimum of 14 inches in width and 24 inches deep.

d. Fill barrels with sand. Sand must be free of rocks or other debris; ensure the sand is dry and not compacted.

e. Mount clearing barrels at a height of 18-24 inches and at a 45 degree angle to permit safe and smooth firearms clearing.

f. Clearing barrels will have an aiming point in the center of the front lid at least four inches wide and one inch deep.

6-10. Close Combat Mission Capability Kit (CCMCK) and Paintball Use.

a. General. Procedures described below apply to both CCMCK and paintball use. The CCMCK is a Soldier installed "drop-in" weapons modification system that allows the user to employ his/her individual weapon (M16/M4/M249/M9/M11) at short range using low velocity marking ammunition (5.56mm and 9mm). The ammunition is designed to be safely fired at opponents at close ranges and is designed to "mark" impacted targets with a paint or dye. The system provides normal weapon employment cues (aiming, firing, ejection, immediate action, load, re-load, etc.,) and immediate target feedback. As a safety feature, standard ammunition cannot be fired in a weapon with the CCMCK bolts installed. The complete system is comprised of user conversion kits for the service weapons, marking ammunition/cartridges, and mandatory safety equipment.

(1) Service weapon kits.

(a) The M16 and M4 rifle kits use the same adapter kit and are a straight one-for-one bolt and carrier group exchange. A blue enameled portion of the bolts is visible through the ejection port of the weapon.

(b) The M249 kit consists of a blue-colored feed tray and bolt/bolt carrier assembly.

(c) The M9 kit consists of a replacement barrel only. The M11 kit consists of a replacement barrel and recoil spring guide. A blue enameled portion of the M9 and M11 barrels is visible through the ejection port of the weapons.

(2) Marking ammunition/cartridges. The marking cartridges do not contain any explosives/propellants other than one or two commercial off-the-shelf primers. The marking cartridges have a clear dome-shaped projectile that reveals a colored marking compound. When the projectile hits the target, the compound is ejected and marks the target.

b. Safety. Use of the CCMCK safety gear and XM1041 9mm ammunition is considered Low Risk. Use of the XM1042 5.56mm ammunition is considered Medium Risk. The following restrictions and limitations must be enforced:

(1) Do not use live ammunition with the modified bolt systems. Ensure personnel participating in the exercise are briefed regarding the prohibition of the use of live ammunition.

(2) If a marking round becomes lodged in the barrel, do not fire additional rounds; this may cause damage to the weapon.

(3) When not firing a weapon, ensure it is on SAFE. Take special care to secure the M4 carbine and M16 rifle because it has inadvertently fired when dropped from a height of five feet onto the muzzle.

(4) The CCMCK must be used with the standard sun/wind/dust goggle ballistic lens, the UTM face mask/balaclava, or the FX9000 face mask/balaclava.

(5) The minimum engagement distance for XM1042 and XM1071 5.56mm UTM ammunition is 5 meters and it is suggested that a minimum distance of 10 meters is used

for the M249 squad automatic weapon. The point of aim should be limited to the torso area, and no head/bare skin shots will be taken. Rounds fired at this distance and up to 30 meters may result in bruising and raised welts.

(6) The CCMCK system includes mandatory safety equipment (face/eye protection, throat protection, armor vest, and groin protection) to prevent injury to operators or trainers. The safety equipment strategy must adhere to the "train-as-we-fight" philosophy and maximize the use of current standard clothing equipment, e.g., configure Soldiers with standard issue (uniform, body armor, gloves, goggles, etc.) equipment. All skin must be covered.

(7) Participants should be warned that the marking dye will be difficult to remove from their clothes.

(8) The 5.56mm-linked ammunition shall not be de-linked for use in the M4 or M16 rifle, this causes the cartridge to forcefully eject from the ejection port.

(9) Single hearing protection is required for all combatant participants and officials while firing CCMCK systems.

(10) The CCMCK should be used in open and well-ventilated areas as firing from the CCMCK produces effluents, which could be harmful to participants firing from enclosed spaces.

(11) All weapons and adapters kits will be maintained in accordance with the manufacturer's operation and maintenance manuals.

(12) After the training has ended, a final inspection of the barrel and chamber will be accomplished to ensure that no marking ammunition remains in the weapon.

c. Training Areas. The safety buffer zone around CCMCK training is 200 meters; CCMCK training will not be conducted within 200 meters of the installation boundaries. Unit commanders, OICs, and trainers must ensure anyone within this buffer zone adheres to the provisions of this regulation. Commanders must ensure that CCMCK training is conducted a minimum of 200 meters from publicly traveled roads, facilities, and equipment that is not part of the training exercise. The brass residue from all CCMCK must be policed and returned to the ammunition supply point just like other residue.

(1) When training with the CCMCK in an Urban Operations Area is complete, commanders and trainers must ensure facilities are sterilized from paint markings, to the greatest extent possible, to ensure the next user has the same quality training resource afforded to them.

(2) Commanders will use KNOXINFO to alert personnel of the dates, times, and areas that CCMCK training will be conducted.

(3) Range technicians will notify units during sign on procedures concerning locations of any signs to be posted for a particular training area.

d. Neither CCMCK or paintball systems will be used in temperatures below 36 degrees F. CCMCK or paintball ammunition shall be stored at 65F or greater for a minimum of two hours prior to use. During use, leaders must frequently check ammunition to ensure pliability. If pliability is lacking, operations will immediately cease and ammunition will be re-warmed.

Chapter 7
Ammunition and Explosives Safety Program.

7-1. Purpose.
To provide guidance specific to Fort Knox for implementing the Explosive Safety Management Program (ESMP). This chapter focuses on the ESMP by directing local policies and procedures that will be implemented. The policies and procedures will supplement DODI 6055.9, AR 385-10, DA Pam 385-64, DA Pam 385-65, IMCOM Regulation 385-10, IMCOM Regulation 5-13 and AMC Regulation 385-10 by defining specific rules, guidelines and responsibilities for Fort Knox, partner organizations, units training on Fort Knox and contractors. In the event of conflicting requirements between this regulation and the regulations of higher headquarters, the most stringent will be followed.

7-2. Responsibilities.

a. **Functions of Installation Senior Commander (SC)**

(1) May designate the Garrison Commander (GC) to execute the Fort Knox ESMP.

(2) Retains the authority to authenticate Certificate of Risk Acceptance (CoRA) of EXTREMELY HIGH risk involving Fort Knox units and Garrison/partner organizations. The Garrison Commander (GC) will brief the SC on all CoRA of EXTREMELY HIGH and what the mitigation plans are to reduce the risk to a lower level. Any risk mitigation measure that require funding Fort Knox units and Garrison/partner organization will be briefed to the SC or his/her designed representative.

b. **Functions of Garrison Commander (GC)**

(1) May designate the Installation Safety Office (ISO) to execute the Fort Knox Ammunition and ESMP.

(2) Appoint on orders a qualified safety specialist within the ISO to initiate and review explosive safety site plans (ESSP), to review facility designs, to initiate or review CoRAs, and provide the commander with essential risk assessment data required to abate deficient program areas.

(3) Serve as the Installation Approving Authority for appointing members to the Ammunition Handlers Certification Review Board (AHCRB). The appointed board members will review the credential of experience and training for the contractor's ammunition personnel as well as ammunition personnel in any unit that will be drawing ammunition from the Ammunition Supply Point (ASP). FORSCOM ammunition handlers will be trained IAW FORSCOM Regulation 350-10 and AMC Regulation 350-4. IMCOM ammunition handlers will be trained IAW IMCOM Regulation 5-13.

(4) Provide adequate funds for training ISO personnel with A&E Safety responsibility to meet the requirement in Figure 1-1, DA Pam 385-64.

(5) Provides concurrence on ESSP for Fort Knox facilities and locations.

(6) Authority for licensing all ammunition operations and facilities on properties controlled by Fort Knox. Pyrotechnics, ammunition, blanks and explosive will not be used in the cantonment areas except when approved by the GC.

(7) Participates in or designates a participant in the Executive Explosive Safety Council (EESC).

(8) Retains the authority to authenticate CoRA of HIGH risk involving Fort Knox units and Garrison/partner organizations.

c. **Functions of Installation Safety Office (ISO)**

(1) Serves as the Fort Knox point of contact for all safety related

ammunition and explosives actions.

(2) Brief GC, as necessary, to keep the leadership informed of explosive safety requirements, issues, and the status of the Fort Knox ESMP.

(3) Provide funds for training personnel with ammunition and explosive safety responsibility within the ISO.

(4) Ensure that ammunition and explosive safety training as required by DA Pam 385-64, Figure 1-1, is established for each responsible individual that has ammunition and explosive responsibility on Fort Knox.

(5) Coordinate, as required, with staff elements of the staff, in the preparation of ESSP and Explosive Site Licenses (ESL). Process license for all unit arms rooms in all locations on Fort Knox. The ISO will maintain the master files for all ESSPs and ESLs on Fort Knox and will provide location information to the DES for emergency response.

(6) Ensure all explosive exposures to military and civilians are indicated on site plans.

(7) Monitor training exercise to ensure field site used by training units for field storage of ammunition.

(a) Locations used on a recurring basis must have an ESSP and ESL.

(b) Units are storing ammunition by compatibility group and have a plan to evacuate ammunition in the event of lightning.

(8) Annually review the installation explosive location map to ensure the routes and sites support the mission of Fort Knox.

(a) Explosives safety clear zones required around each location based on quantity-distance (QD) criteria.

(b) Primary and alternate explosive movement routes through the installation.

(c) Locations outside of designated impact areas for conducting explosives operations to include explosives on/or off-loading and if required combat aviation Forward Rearming Point (FRP).

(d) Any airfield locations for handling hung ordnance and gun-clearing operations.

(e) Tracked vehicle upload and download areas (other than at authorized firing ranges).

(f) Explosives support facilities, such as ammunition holding areas.

(g) Review QD compliance by Net Explosive Weight (NEW) or planned facilities on existing ammunition and explosives sites.

(h) Annually, survey ASP boundary to monitor encroachment with explosive safety arcs and document findings.

(i) Review SOPs, waivers, and CoRAs.

(j) Review the DRAW and coordinate as required with staff element that submitted CoRA.

(k) Advise each new GC and Safety Director of CoRA involving his/her operations and the impact on the mission if the CoRA is not re-issued.

(l) Conduct annual inspections of all ammunition and explosive storage areas to include the site licenses. In addition, review the Quality Assurance Specialist (Ammunition Surveillance) magazine inspection reports.

(m) Monitor units/directorates ammunition uploads and other activities involving transportation and storage of ammunition in other than authorized and licensed storage areas to ensure that pertinent requirements are met.

(n) Participate in the installation master planning process, and review annually the installation master plan to ensure construction is not planned inside explosive safety arcs. When construction, not related to ammunition operations is required within explosive safety arcs, the ESSP and explosive licenses are updated and approved at the appropriate level.

(1) Maintaining fire symbols and chemical hazard symbols current with actual ammunition and explosives stored at a particular location to include the unit arms rooms that have ammunition storage approval.

(2) Ensuring that personnel responsible for managing ammunition and explosives keep current information on the type and location of ammunition and explosives storage and provide this information to firefighting, military police and security personnel. This will include the ammunition that is approved for storage in specific unit arms rooms.

(o) Monitor operations involving explosives to ensure that all units training on Fort Knox understand and comply with all explosive safety standards.

(p) Maintenance of Lightning Protection System (LPS) records of inspection results for the last six inspection cycles IAW DA Pam 385-64, para 17-29.

(q) Coordinate the installation vegetation control plan IAW DA Pam 385-64, para 6-8c.

(r) Approve pyrotechnic displays and use of explosives in connection with public demonstrations, exhibitions, and celebrations will be submitted to the ISO along with a copy of the DRAW.

d. Functions of Fort Knox Unit Commanders (to include Tenant and Fort Knox Partners):

(1) Establish a written ammunition program. Elements of the program will include:

(a) The safety and accountability of all ammunition and explosives used on training ranges, training exercises, and operations.

(b) Complete a DRAW of all ammunition operations and ensure that all hazards identified and controls directed in ammunition information notices (AIN) and other safety messages are implemented.

(c) Ensures all unit ammunition shipments comply with the requirements of federal laws, AR 385-10 and DA Pam 385-64.

(d) Requirements to only unpackaged amount of ammunition for immediate training needs of less than 4 hours. All packing material will be maintained for repacking unused training ammunition, and explosives ammunition will be repacked prior to transportation from the training location. There will be no loose or unpacked ammunition transported on any motor vehicle.

(e) Unit commanders may request approval for the storage of operational load ammunition in their unit IAW DA Pam 385-64, para 8-3a.

(f) All leaders and Soldiers will receive training on the Fort Knox Military Munitions Rule (MMR) and the elements of the Fort Knox amnesty program. Training for the MMR is found at Defense Ammunition Center website under on-line training. Course is AMMO 68-DL (Military Munitions Rule). Individuals will submit certificate of training to supervisors. Training will be documented on a by-name roster to include date of training.

(g) Ensuring that personnel responsible for managing ammunition and explosives keep current information on the type and location of ammunition and explosives storage

and provide this information to ISO. This will include the ammunition that is approved for storage in specific unit arms rooms.

(h) Allows the unit to conduct ammunition operations and storage only in authorized areas. An authorized area includes ammunition issue points on ranges, areas with an ESSP and ESL.

(2) Each unit bringing/using A&E on Fort Knox will appoint an Ammunition Officer/NCO to manage their ESMP IAW this regulation.

(3) Units will conduct surveys of their ammunition and explosives transportation activities to ensure:

(a) Those ammunition-carrying vehicles only use the approved ammo route.

(b) Vehicles uploaded with ammunitions move from the storage area to the area of use using authorized ammunition routes.

e. **Functions of Directorate of Public Works (DPW).**

(1) Director

(a) Provide funds for training of electrical personnel with LPS inspection and repair responsibility within DPW.

(b) Ensures LPS technical inspections are conducted every two years and that the LPS inspections meet standards in DA Pam 385-64.

1. May use the contracted services of a qualified electrician to evaluate and conduct periodic tests and surveys on the LPS IAW DA Pam 385-64.

2. Prioritizes and directs repair or corrects all deficiencies identified during LPS inspections.

3. Provide the ISO with a copy of the inspection results with any corrective action performed.

(2) Environmental Division, Installation Restoration Program (IPR):

(a) Provide the installation with historical information on closed and inactive ranges for ammunition/explosive areas.

(b) Provide ISO a Point of Contact (POC) for any transferred lands that had been identified or have the potential for ammunition/explosive contamination.

(c) Maintains the unexploded ordnance (UXO) database for the installation.

(3) Recycle Branch:

(a) Maintain safety SOPs that provides procedures for handling/storage of the authorized small arms brass operations.

(b) Maintain all records and documentation of certification of explosive free for spent brass.

(4) Master Planner: The Master Planner will be involved in the ESMP by advising the Garrison Safety Manager of any proposed construction plans or considerations in the established installation explosive arcs.

(5) Geographic Information System (GIS) section: Will prepare and provide, as part of the installation master plan, Ammunition and Explosive Site Map to include the following information:

(a) Quantity distance zones around each explosive site safety planned location based on QD criteria.

(b) Primary and alternate explosive movement routes through installation provided by the ISO.

(c) Any airfield locations for handling hung ordnance and gun clearing operations provided by G3/DPTMS, and coordinated with ISO and ASP.

(d) The overall historical depiction of abandoned range or storage sites.

(e) The current ammunition and explosive sites that has approved or request site licenses.

(f) Upon request, provide above data and maps to the Installation Master Planning Board for use in the installation construction projects review.

f. Functions of Director of Plans, Training, Mobilization and Security (DPTMS):

(1) Director will provide funds for training of DPTMS personnel with Ammunition and explosive safety responsibility.

(2) Range Division:

(a) Provide updated ammunition and explosive safety through SOP, range briefings and range certification training.

(b) Provide the Garrison Safety Manager (GSM) and QASAS with notification of range ammunition or explosive mishaps.

(c) Coordinate all requests for a CoRA through the ISO.

(d) Maintain ranges and restricted areas with signage of hazards IAW AR 385-63.

(e) Provide the ISO and DPW, Environmental Branch with historical records on ranges and explosive areas.

(f) Maintain appropriate disposal records on all UXO/explosive operations.

(g) Coordination with Range Control is required before using any Fort Knox range/training area to set off or use any pyrotechnics, ammunition, blanks and explosives.

(3) Training/Schools Branch schedules AMMO 62 course, in conjunction with the Defense Ammunition Center, at least every two years for Fort Knox personnel with ammunition and explosive responsibility.

(4) Installation Ammunition Manager:

(a) Approves ammunition forecasts and ammunition draws.

(b) Monitor unit ammunition draws for excessive draws for the ranges or time available for ammunition operations.

(c) Provide documentation of the ammunition expenditure reports of ammunitions expended on Fort Knox's ranges to DPW Real Property for permanent archival storage.

(d) Monitor and report to the ISO and QASAS the units that are in violation of ammunition handling, transportation or accountability procedures.

(e) Is the installation's approval authority for Ammunition Handlers Certification, and will sign all certificates of training for the Ammunition Handers.

g. Functions of Directorate of Emergency Services (DES):

(1) Fire and Rescue Services:

(a) Ensure the Installation Fire Prevention Program encompasses ammunition and explosive hazards.

(b) Firefighters are trained on the hazards of different classes of the ammunition and explosives.

(c) Firefighters are briefed and trained on the location of the ammunition and explosives at the installation.

(d) The Fire Chief will devise a system that will ensure all responding firefighting vehicles and personnel have access to these potential explosive site (PES) locations know the hazards at the location, Ammunition and Explosive Site Map to include all areas with approved ammunition licenses are maintained and accessible. Train responding personnel to use computer programs to assist in mitigating hazards to both personnel and equipment.

(e) Firefighters receive training on the hazards on the newer composite materials that may be involved in fires either starting from ammunition incidents or encompassing fire that may include army equipment.

(2) Physical Security establish standards for operational loads of security ammunition including unit arms room guards, contract guards and security augmentation forces.

h. Functions of Director of Logistics Readiness Center (DLRC):

(1) Director

(a) Provide funds for training for personnel with ammunition and explosive safety responsibility within DLRC.

(b) Enforces a portion of AMC-R 385-10 that pertains to employees and operation under AMC.

(c) Request updated ESSP when new facilities, update of facilities, or changes in operations are made at the ASP.

(2) ASP Accountable Officer:

(a) Review all ammunition and explosive items stored in the Fort Knox ASP storage facilities to ensure that storage items do not exceed the site license that has been approved for that facility.

(b) Verify the hazard designation for each storage facility and upon change of hazard designation, immediately provide/inform the DES, QASAS, ISO and PMO, Physical Security of the Fire Hazard symbol change and location of facility (bunker/igloo number).

(c) Provide notification to the ISO and the QASAS personnel when there is a need for a storage facilities change in site license.

(d) Participate in A&E safety inspection.

(e) Notify the QASAS upon receiving a unit's request to draw ammunition for other than training purpose.

(f) Ensure procedures are developed and in place for:

1. Maintaining fire symbols and chemical hazard symbols current with actual ammunition and explosives stored at a particular location.

2. Ensuring that personnel responsible for managing ammunition and explosives keep current information on the type and location of ammunition and explosives storage and provide this information to safety, firefighting and security personnel.

(3) QASAS:

(a) Assists ISO in developing ESSPs and ESLs and submitting them through IMCOM and US Army Technical Center for Explosive Safety (USATCES) to Department of Explosive Safety Board (DDESB) for approval.

(b) Develop and review all explosive CoRAs for and coordinate with ISO.

(c) Review designs for explosive storage, surveillance, and maintenance for compliance with explosive safety standards.

(d) Conduct safety inspections of ammunition and explosives handling storage, use, maintenance, and disposal areas at least semi-annually. A copy of these inspections will be copy furnished to the ISO.

(e) Monitoring ammunition uploads and other activities that involve the transportation and storage of ammunition in other than authorized and licensed storage areas to ensure that pertinent requirements are met.

(f) Review QD compliance of existing and planned facilities, both prior to and after construction.

(g) Review unit SOPs and directives for compliance with explosive safety requirements.

(h) Assist in the installation master planning process and review annually the installation master plan to ensure construction is not planned inside explosive safety areas.

(i) Monitoring operations involving ammunition and explosives to ensure that units understand and comply with the explosive safety standards.

(j). Monitoring and evaluating explosives activities to include the following:

1. The QASAS will conduct ammunition serviceability and management procedures inspections of units that retain ammunition as an operational load, guard load, or salute or burial detail requirement.

2. Ammunition and explosives transportation.

(k) Ammunition and explosive accident reports and investigations IAW DoD 6055.9, AR 385-10 and DA Pam 385-40 and document and disseminate explosive lessons learned. Provide copy of report to ISO.

(l) The enforcement of integration of risk management into the ammunition and explosive storage and surveillance operations.

(m) Oversee all ammunition and explosive disposal activities when they occur.

(n) Provide technical assistance with any weapon system modifications, special exercises, and test programs conducted on Fort Knox.

(o) Assist commander and staff with safety concerns associated with real property containing, or suspected of containing UXO.

(p) Command and staff briefings, as necessary, to keep the leadership informed of explosive safety requirements, issues and the status of the ESMP.

(q) Participate in the A&E safety inspections.

(r) Maintenance of records to include LPS inspection results, site licenses an inspections results with corrective actions.

(4) Transportation Division:

(a) POC for the ammunition transportation and storage issues.

(b) Inspect unit movements and transportation of ammunition to ensure units comply with Federal Laws and Regulations.

7-3. Facilities.

a. Master Planning.

(1) The DPW, Master Planner of the installation facilities and operations will be involved in the Ammunition and Explosives Safety Program. The Master Planner and ISO will maintain a map showing all the locations of A&E in the Fort Knox cantonment and range areas. This map will be used when proposing new uses, change in use of or

construction on garrison or installation real estate. The Master Planner will assist by advising the ISO Safety Director of any proposed construction plans or considerations in the established installation explosive arcs.

(2) The ISO will review annually the explosives location map to monitor encroachment with ESQD and ensure required explosives safety site plans.

b. Site Planning.

(1) Before any plans to build, renovate, or increase New Explosive Weight (NEW) to existing or new facilities in any area under the GC authority, coordination between the ISO and requesting unit must be done.

(2) Ammunition site and general construction plans are submitted for review before beginning final engineering design of new construction or major modification of existing facilities for explosives.

(3) All locations with A&E on Fort Knox must have an approved ESSP as required by DA Pam 385-64 and DA Pam 385-65. All Fort Knox site plans will have the concurrence of the Garrison Commander.

(4) The ISO works with the Installation Master Planner and QASAS to identify requirements for proposed site plans. The ISO performs a site inspection and sends the results to the engineers for use in project planning. As part of the evaluation, spreadsheet is prepared that list each explosive site and all facilities impacted to include inhabited building distance, public traffic route, interline and magazine facilities with Geographic Information System (GIS) distances. This information is included with the explosive site safety plan packet. The QASAS and ISO prepare the submission data, following policy guidance contained in DA Pam 385-64 and 385-65 applicable IMCOM regulations to compile the necessary plans, drawings, and computations and also the Explosives Safety Site Plan Developer's Guide written by USATCES. The ISO reviews the submission package and forwards the entire package through installation command channels for the GC's approval and signature of the IMCOM Safety Office. Once IMCOM has approved, it will be sent to USATCES and then forwarded to DDESB for final. Any correspondence that includes a certificate of risk with a residual risk of EXTREMELY HIGH risk will be coordinated through the SC.

c. Facilities conformance.

(1) Organizations are responsible to ensure facility construction meets requirements of approved explosives safety site plan IAW the DA Pam 385-64.

(2) Organizations are also responsible for conducting periodic inspections of their facilities to ensure continued compliance with the approved ESSP and this policy. Organizations are responsible for submitting work orders for facility non-conformances.

(3) The ISO Explosive Safety Specialist will review and directly coordinate with DPW to complete work orders pertaining to explosive safety for work completion. ISO staff has the authority to inspect any facility at any time on Fort Knox.

d. **Facility Maintenance.**

(1) All organizations will have a program to address facility maintenance. Each program will:

(a) Ensure facility maintenance plans and schedules are in place for explosives related and supporting structures, including documentation of past inspections testing.

(b) Ensure action plans are in place for identifying, funding, and correcting facility deficiencies (repair, replacement, modification).

(c) Ensure work orders are submitted to DPW annually to conduct periodic inspection and trend analysis is conducted on LPS. Testing will be conducted every two years. See DA Pam 385-64 for guidance. DPTMS/DPW will coordinate all LPSs on ranges; LRC will coordinate all LPSs in the ASP.

(2) Organizations will ensure specialized training and certification is provided (if required) to maintain explosives facilitates.

7-4. Operations.

a. **Ranges.** The Installation Range Management Authority is designated as the Senior Commander's representative for Command and Control (C2) for range and test areas on Fort Knox and will work with all the organizations to accomplish the Fort Knox range and test missions. All tenant activities will coordinate with Range Operations for current test and firing range status. Units/activities, both on- and off-post, using Fort Knox range facilities will follow all policy and procedures IAW Fort Knox Reg 385-22, AR 395-63 and DA Pam 385-63. Any military forces to include Army National Guard and Army Reserves coming onto Fort Knox for training will coordinate and schedule activities through Range Operations and the ISO.

b. **Arms Room.** This section establishes policy and provides general rules on storing ammunition in unit arms rooms.

(1) The GC will approve licenses for all ammunition storage facilities on Fort Knox that do not include a document of risk acceptance of EXTREMELY HIGH risk.

(2) Storage will be consistent with safety requirements in DA Pam 385-64, physical security requirements of AR 190-11 and accountability requirement of AR 710-2.

(3) Storage in an ammunition holding area (AHA) or ammunition supply point (ASP) will be used unless such use would adversely impact operations or result in an unnecessary commitment of resources.

(4) The term "limited quantities" is defined as the minimum amount of ammunition required to support operational missions (e.g., for security guard forces, military police, etc.) or the immediate training requirements of the unit owning the facility. For Hazard Divisions 1.2.2 this may not exceed 50 pounds NEW and for HD 1.3 this may not exceed 100 pounds NEW.

(5) Prior to a unit storing ammunition in an arms rooms, the GC will consider the need to expose the minimum number of personnel to the minimum amount of explosives for the minimum amount of time possible. The qualifier "operational necessity" is intended to provide commanders flexibility in providing readily available operational necessity munitions without exposing personnel and equipment to unnecessary explosive risks. Key justification for storing ammunitions and explosives in arms rooms is "operational necessity" not "convenience."

(6) Ammunition stored in arms rooms will be stored in original containers and packaging. Unit arms rooms that support guard forces or military police may have more than one outer pack of each caliber of small arms ammunition open for mission use.

(7) Combustibles, solvents, petroleum products or radioactive items will not be stored near ammunitions unless otherwise approved by the GC.

(8) Unit commanders wishing to store ammunition in their arms room will:

(a) Prepare a memorandum requesting authorization for storage of authorized ammunition items in an arms room to be forwarded to ISO. Memo will list DODIC, quantity, reasons for storage, (e.g., force protection).

(b) Prepare a DRAW for the arms room approved by the unit commander.

(c) Have a current Security Construction Statement, Form 4604. This document is valid for five years from the date of issue and is issued by DPW. Questions regarding Form 4604 may be addressed to DPW, Engineers.

(d) Post all documentation with the license in the arms room and personnel will be briefed annually on the best safety practices applicable to the storage and handling of ammunition.

(e) An arms room must have two fire extinguishers, rated at least 10 BC.

(f) Ammunition Handlers must be appointed on orders by their commander and meet all training requirements outlined in DA Pam 385-64.

(g) Ceremonial ammunition storage in arms rooms is not considered an operational necessity. However, limited quantities of HD 1.3 and HD 1.4 ceremonial ammunitions (e.g.75mm blank, 105mm blank) may be stored in arms room providing there are no other practical alternatives, with the CG's approval. The total amount of HD 1.4 and HD 1.3 ceremonial ammunition authorized for storage in arms rooms will not exceed the lesser of 100 pounds NEW or one full outer pack of ammunition.

c. Ammunition/weapons malfunctions.

(1) IAW AR 385-63, the definition of a malfunction of an ammunition item as expected when fired, launched, or when explosive items function under conditions that should not cause functioning. Malfunctions include hangfires, 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, malpractice, or situations such as vehicle accidents or fires.

(2) The OIC in charge of the firing unit will immediately cease firing the suspected ammunition/weapon and shut down the range, secure the firing site, and immediately notify Range Control providing the following information:

(a) Range, observation point (OP), firing point, training area and grid coordinates.

(b) Type and caliber of ammunition involved.

(c) Type of malfunction.

(d) Time and date of malfunction.

(e) Name of OIC.

(f) Name, unit, and telephone number of person reporting the malfunction.

(3) Range Operations will, in turn, notify the QASAS, Range Safety Specialist, the AMC Weapon System Logistics Assistance Representative (LAR), and the ISO Director.

(4) Unless overriding safety or security considerations exist, the immediate malfunction area (including equipment and weapons) will not be disturbed before an investigation is conducted. Weapons, ammunition and brass involving malfunction will remain undisturbed and under guard until cleared, normally by the Range Tech or QASAS, or until incident investigation is completed by all parties. After the initial inves-

tigation by the QASAS and ammunition is determined not to be a factor in the malfunction, the unit can coordinate with Range Control to resume normal operations for the other firing points.

(5) After being informed by the firing unit of a malfunction, the QASAS will immediately respond and after their preliminary inspection assisted by Range Control Safety Officer and AMC LAR, when appropriate, will: gather data as necessary for all reported malfunctions, prepare a preliminary report, locally suspend affected ammunition and immediately notify all units in possession of suspended stock.

(6) The preliminary report will not be delayed if an ammunition officer or QASAS is not available. The range safety specialist will prepare the report on the DA Form 4379.

(7) The ISO Director, through IOC, will make the notification on all information relayed to any off post agency. The appropriate AMC commodity command will notify the malfunction location within the continental US (CONUS) within 24 hours from receipt of the preliminary report as to whether an on-site investigation will be conducted. Where no on-site investigation is conducted, a local investigation will be conducted by the QASAS, Range Safety Officer, LAR and the ISO.

d. Demilitarization and Destruction.

(1) Demilitarization or destruction of ammunition, explosives, and propellants will be accomplished by reclamation, open burning/open detonation (OB/OD) incinerations, or other approved methods.

(2) IAW this regulation, units that identify UXO/DUDs and are within the training complex will notify range operations.

7-5. Emergency Preparedness

a. Risk Management.

(1) When DoD and Army Explosives Safety regulations and policies cannot be met on Fort Knox, the procedures set forth in DA Pam 385-30 will be followed. A CoRA or a Certificate of Compelling Reason (CCR) will be used for risk acceptance. The risk acceptance process for Fort Knox organizations is shown below in the approval flow chart (Flowchart 6-1). Other government agencies (OGA) and Non-Government Organizations (NGO) located on Fort Knox will document an equivalent risk acceptance process in their ESM.

Figure 7-1. Risk Acceptance Process Flowchart.

(2) Approval authority will be equivalent to Army requirements specified in DA Pam 385-30. All risk acceptances requiring risk acceptance documentation of Fort Knox will be submitted to the ISO for review and DPW Master Planner for repository. All HIGH level risk acceptances will be submitted to the SC for concurrence.

(3) A CoRA/CCR will be the last measure taken after all other controls had been exhausted.

(4) Lack of funding, improper planning, or production schedules do not constitute or validate an excuse to deviate away from compliance.

(5) If CoRA/CCR is used, strict measures must be in place for speedy corrective action to ensure a compliant state.

b. Accident Prevention Program.

(1) All units with an A&E mission on Fort Knox will have explosive safety as an integral part of their accident prevention plan (safety SOP).

(2) The organizational accident prevention plan (APP) will be tailored to their operations which addresses the requirements states in the AR 385-10 table 1-1 and DA Pam 385-10 as a minimum. A copy of the APP will be provided to the Fort Knox ISO for review.

c. Emergency Response.

(1) Fort Knox Fire Department will conduct fire prevention inspections in A&E facilities and have the authority to inspect any facility at any time on Fort Knox.

(2) All organizations located on Fort Knox with an A&E mission will maintain the proper fire and chemical hazard symbols of explosives present within the facility. In addition, the Fort Knox Fire Department will be notified when those hazards change.

(3) In the event of an explosives accident, the Fort Knox Fire Chief will be the Incident Commander (IC) in charge of the emergency response until the scene is declared safe.

(4) Once the accident site has been declared safe, the scene will be turned over to the DES, Safety, QASAS and command for scene preservation and accident investigation.

(5) The DES will secure the site after completion of the emergency response action. The GSM will control the accident site until released to the organization.

(6) Units must comply with and include provisions for complying with the Emergency Planning Community Right-to-Know Act (EPCRA). Section 302-321, DOD, and DA implementing policies IAW DA Pam 385-64, paragraph 6-20d. The GSM will participate along with the Fire Chief on the Emergency Services Working Group.

(7) The EPCRA of 1986 was created to help communities plan for emergencies involving hazardous substances. EPCRA requires hazardous chemical emergency planning by federal, state and local governments, and industry. It also requires industry to report on the storage, use and releases of hazardous chemicals to federal, state, and local governments.

(8) Each organization with A&E missions on Fort Knox will develop emergency action plans (EAP) and will practice their plan at least annually. There will be an annual Fort Knox wide emergency drill specific to an A&E accident or incident.

(9) Any releases of information to the public will be made by the Garrison Public Affairs Office (PAO) only.

(10) Army Accident Investigation teams will be coordinated through the GSM. Class A & Class B Army explosive accidents may be led by a board from US Army Combat Readiness/Safety Center.

(11) Any release of information to the public will be made by the SC or the PAO only.

7-6. Compliance

a. Training.

(1) Personnel with primary Military and Civilian occupational specialties involving ammunition and explosives require training as outlined in Table 1-1, DA Pam 385-64, Army explosive safety courses (Annex A).

(2) All personnel (supervisory and non-supervisory) who operate, handle, transport, maintain, load or dispose of ammunition and explosives must receive initial safety training before performing any of those tasks.

(3) Supervisors of civilian employees and contractors responsible for explosive safety or who's position require ammunition handler certification, will ensure workers are trained IAW Table 1-1, DA Pam 385-64.

(4) Hazardous cargo certifiers must successfully complete an initial 80-hour hazardous materials (HAZMAT) certification course from one of the DoD approved schools listed in DOD 4500.9-R, Part II, Chapter 204, IAW 49 CFR 172.700 through 172.704 and DOD component regulations. Personnel must receive refresher training every 2 years in order to continue to certify shipments of hazardous materials for transportation. Employers will maintain certification training records IAW 49 CFR Part 172.

(5) Those personnel at unit levels who will directly handle or who are exposed to munitions during the distribution process (other than the actual consuming Soldier or weapons crew) must obtain and maintain certification through the Installation Ammunition Handlers Certification Review Board. The above on-line courses must be complete before the Explosive Certification Board approves Ammunition Handler Certification. The certification is valid for 2 years from the date of certification. Unit commanders should post a copy of explosives handling/transport certifications along with the Soldiers DA Form 7281 (Command Oriented Arms, Ammunition and Explosive (AA&E) Security Screening and Evaluation Record) in the Soldiers local file prior to allowing or assigning duties to handle A&E.

(6) Commanders will ensure personnel responsible for the development and review of deviations and risk assessments receive risk management training. Risk management classes are available through the ISO.

(7) All personnel will receive 3R (Recognize, Retreat, Report) and UXO safety education training information. Training can be accessed on the Fort Knox Intranet site or the ISO webpage.

(8) All units/organizations will maintain training records on their personnel.

b. Inspections/Evaluations/Audits.

(1) ISO will conduct and document annual inspections and/or audits of A&E storage and operating areas to ensure compliance with DoD and Army policies.

(a) Inspections will be conducted annually and will include hazard identification and follow-up of corrective measures of all storage, operating and transit areas for A&E.

(b) Comparison of ammunition actually stored versus what ammunition is authorized by the license or site plans.

(c) Identification of any overages or storage compatibility violations.

(d) Verification of QD separation requirements stipulated in licenses and site plans.

(e) Evaluation of the safety of storage facilities, including adequacy of earth cover on magazines, barricades, and condition of LPS and ventilators.

(f) Review complete inventory by storage facility showing DODIC, nomenclature, quantity, and total new explosive weight.

(g) The results of these inspections will be maintained for three years IAW AR 25-400-2.

(h) Review and evaluate the latest report for the electrical grounding inspection conducted on the LPS of the ASP ammunition site. LPS files will be retained for six cycles or a total of 12 years.

(2) ISO will document final A&E facilities acceptance inspections following construction, renovation, or modification of facilities prior to accepting a facility for A&E operations.

(3) The DDESB and the Defense World Wide Ammunition Logistical Inspections will conduct evaluation of the installation explosives and ammunition safety programs. Additionally a staff assistance visit may be conducted by USATCES. The results of external inspections will be incorporated into action plans, lessons learned, and will be tracked to remediate inspection deficiencies. The ISO is the primary liaison for these activities. In order to facilitate external evaluations and surveys, an A&E Support Package as required by AR 385-64, para 3-4 and AR 700-13, para 3-1 will be gathered and provided to the inspectors at the initial briefing on the inspections.

c. Executive Explosive Safety Committee (EESC).

The EESC will consist of the Installation Ammunition Manager or his designated representative, as chairperson, all commanders or directors with an A&E mission. It provides a forum to discuss technical policy issues. The EESC may be included in the quarterly Safety Council.

d. **Explosive Safety Working Group (ESWG).**

The ESWG meets when required in conjunction with the Ammunition Manager's working group. Personnel to be included in the working group will consist of an ISO ammunition/explosive safety specialist, QASAS, ammunition manager. The ESWG gives all organizations a voice in the formulation of the installation explosives safety polices. It provides a forum to discuss and resolve explosives safety managerial and technical policy issues. Documentation/concerns from the ESWG will be forwarded to the ISO for presentation to the EESC. The EESC will make recommendations to the chairpersons on explosives safety policy and program management.

e. **Explosives Safety Issuances.**

(1) Explosive safety issuances consist of, but not limited to, local policies, SOPs, Army Regulations, Pamphlets, and other publications.

(2) All units/organizations on Fort Knox, with ammunition responsibility, will have SOPs which include A&E safety management. SOPs will be reviewed annually. The recommended format to be used for development of an ammunition SOP is detailed in AMC-R-700-107.

(3) SOP's will comply with Army and DoD requirements and will be reviewed by ISO prior to approval.

(4) Any compensatory measures to manage a risk will be documented and controls in place to ensure compliance.

(5) All personnel involved in A&E operations will be aware of and take precautions with any Hazards of Electromagnetic Radiation to Ordnance (HERO) unsafe munitions. If HERO unsafe munitions are located or if a munition will be rendered HERO unsafe, the QASAS and ISO will be notified.

f. **Explosive Licenses.**

(1) All A&E facilities will have an explosive license.

(2) Licenses have no expiration date but they must be reviewed and validated annually.

(3) Licenses can never exceed the DDESB approved ESSP but can be more strict.

(4) A copy of the signed license will be kept at the local area and the ISO.

g. **Certificate of Risk Acceptance (CoRA).**

All request for certificates of risk acceptance are submitted through the ISO to the IMCOM Safety Office for appropriate action. Certificate of risk acceptance are requested only after every effort has been made to eliminate the hazardous or substandard condition

h. **Records Management.**

(1) All offices having responsibility for A&E in any capacity: administrative, storage, issue, maintenance, transportations, etc., will maintain records as required by Army Regulations that pertain to their operations.

(2) LPS test and inspection records for the past six inspection cycles will be maintained by the responsible individuals at ASP and Range Control facilities.

7-7. Ammunition and Amnesty Found on Post (AFOP)

a. This annex references requirements and procedures for control, accountability, safety, and security of A&E. A major area of continuing concern has been the lack of written comprehensive ammunition amnesty programs to gain control of loose or uncontrolled ammunition. Reviews have found most amnesty programs did not provide for easy return of ammunition, units had no collection means, and Soldiers were unaware of amnesty.

b. To be effective, amnesty programs must stress the urgency of gaining control of ammunition items outside of the supply system, and provide for interaction of activities concerned, i.e., Military Police, ASP, and unit commanders. <u>This program is not intended to circumvent normal turn-ins procedures.</u>

c. For clarification purposes, amnesty is considered small arms ammunition only. Small arms ammunition does not contain an explosive projectile, is up to and including .50 Caliber or smaller, or is for shotguns.

d. The following amnesty and AFPO procedures are provided:

(1) Personal safety will be the primary consideration at all times. All found ammunition of unknown origin, excluding small arms ammunition .50 caliber and below, will be considered to be hazardous and must not be moved by untrained personnel. Individuals finding ammunition will follow the 3Rs (Recognize, Retreat, Report).

(2) No Questions Asked Policy. Commanders will provide a non-intimating atmosphere for Soldiers or civilians to freely turn-in or report the location of amnesty am-

munition. Do not ask personal identification questions (name, address or unit). No attempt will be made to punish or prosecute individuals using the amnesty program since that will discourage use by others in the future. Questions about AFOP, such as where it was found, may be asked so ammunition control can be improved.

(3) Turn-in procedures.

(a) The ASP is the primary amnesty and AFOP turn-in point and all ammunition, components, and ammunition residue will be accepted, with or without documentation, from military or civilian personnel, no questions asked.

(b) Persons desiring to turn-in other than small arms items will call the Ammunition Hotline at (502) 624-AMMO/2666, for information. These items will be considered to be dangerous and personnel should call the QASAS, 9-1-1 or Installation Operations Center (IOC). Commanders will inspect amnesty containers and notify ASP if assistance is needed for pickup of ammunition.

(c) Commanders will insure all Soldiers have the option to turn-in or report amnesty and AFOP ammunition through their chain of command with NO fear of reprisal.

(d) If A&E is found on a range, mark it, determine location and contact Range Operations, 624-2125. In addition, contact the chain of command.

(e) A&E found off post. When any type of A&E is found outside the installation boundary, contact local civilian authorities or military police. In addition, contact the chain of command.

(4) Amnesty containers.

(a) Amnesty containers must:

1. Prevent unauthorized removal of A&E.
2. Prevent unauthorized removal of the amnesty container.
3. Provide protection from weather exposure (such as rain sleet, and snow).
4. Prevent A&E from accumulating, dropping or falling in such a way that might cause inadvertent initiation.

(b) The establishment and use of ammunition amnesty containers on ranges is prohibited.

(c) Amnesty containers must be designed and configured in such a manner so as not to accept ammunition larger than a .50 caliber ammunition rounds. Small arms ammunition containers may be established in unit areas. All containers will be clearly marked 'AMMUNITION AMNESTY BOX FOR SMALL ARMS AMMUNTION ONLY TO DISPOSE OF OTHER ITEMS, CALL THE AMMUNITION HOTLINE AT 4-AMMO." Units may obtain approved designs for amnesty boxes from the QASAS or Explosive Safety Manager.

(d) Amnesty containers will not be made capable of accepting material larger than .50 caliber. Ammunition found, larger than .50 caliber, will be reported/and or marked so that authorized authorities can easily find.

e. An Ammunition Hotline (502) 624-AMMO (2666), has been established at the Muldraugh Ammunition Storage Area (MASA) that amnesty program users can call 24 hours a day for information on how to turn-in ammunition, directions to turn-in points, or leave information where ammunition may be picked up

f. Commanders will take the following immediate action to implement this program:

(1) Within requirements set forth in paragraph 4d above, establish ammunition amnesty containers at approved locations.

(2) If required, request small arms ammunition amnesty containers (modified metal ammunition box M2A1) on DA Form 581. The request will indicate the unit designation(s) and building numbers(s) where the containers will be installed.

(3) Brief all personnel on amnesty and AFOP procedures. Establish an atmosphere that does not intimidate Soldiers or prevent individuals from freely turning in or reporting the location of ammunition under the amnesty program. No attempt will be made to punish or prosecute individuals using the amnesty program, since this would discourage its use by others in the future.

(4) Insure amnesty containers are inspected daily and any ammunition found is promptly turned-in to ASP or deposited in the amnesty container at the entrance to ASP.

(5) Military personnel assigned duties associated with A&E will be briefed on the Amnesty Program at least semiannually and prior to operations, exercises or training events that provide access to or require the use of A&E. This training will be documented and a copy provided to the QASAS, ASCW-LKN.

(6) Develop a Standard Operating Procedures (SOP) outlining individual's responsibilities and the requirements for handling A&E amnesty items. SOP's will be approved by the QASAS and Explosives Safety Manager.

(7) Commanders will monitor the amnesty program to ensure effectiveness of ammunition accountability and that this program is not being used to circumvent normal turn-in procedures.

(8) A copy of this policy will be posted on the unit/activity bulletin board along with the amnesty turn-in poster (Annex L). Posters will contain location of ammunition amnesty turn-in point, telephone numbers and information for potential users. Amnesty box locations are found on Annex M.

g. Ammunition Surveillance Office will establish an ammunition amnesty day for the installation annually. The date, location and process will be established and published through email, post newspaper and KNOXINFO channels.

h. The importance of providing a simple and effective means to turn-in and non-intimating atmosphere cannot be overemphasized. If we agree to gain control of misappropriate ammunition, each commander, officer, noncommissioned officer, and civilian supervisor must understand the urgency and necessity for these programs and assure their best and continuing efforts in making them succeed.

7-8. Ammunition Route

a. Policy.

(1) IMCOM Regulation 5-13 requires the Installation Safety Office to designate the route ammunition and explosives will move in or through area of the installation.

(2) All military and commercial vehicles carrying US DOT placard amount of Class 1 ammunition or explosives on the installation will follow only the routes designated and specifically approved by the ISO.

(3) The following are designated route descriptions for delivery to Fort Knox, Muldraugh Ammunition Storage Area (MASA), and on post range areas. Ammunition can be delivered Monday through Friday from 0500-1300, except Federal Holidays and holiday weekends.

(a) Off post route from north of Fort Knox, via Highway 31W. Travel south on Highway 31W until reaching Brandenburg Station Road, turn right off Highway 31W,

proceed under the overpass to top of hill at the intersection with Brandenburg Station Road, turn right and proceed to Brandenburg Gate checkpoint. Stay in the right lane while proceeding through the gate checkpoint. After clearing the load, merge left with traffic, turn left onto Muldraugh Magazine Road, and proceed north until reaching the MASA.

(b) Off post route from west of Fort Knox via Highway 60. At the traffic light, Highway 60/Highway 31W intersection, turn left, proceed north on Highway 31W until reaching the exit ramp for Brandenburg Station Road (approximately 1/8 mile from the light), turn right, and follow the road proceeding to Brandenburg Gate checkpoint. Stay in the right lane while proceeding through the gate checkpoint. After clearing the load, merge left with traffic, turn left onto Muldraugh Magazine Road, and proceed north until reaching the MASA.

(c) Off post route from the south of Fort Knox via Highway 31W. After passing the traffic light, at the intersection of Highway 60 and Highway 31W, proceed north on Highway 31W until reaching the exit ramp for Brandenburg Station Road (approximately 1/8 mile from the light), turn right, and follow the road proceeding to Brandenburg gate checkpoint. Stay in the right lane while proceeding through the gate checkpoint. After clearing the load, merge left with traffic, turn left onto Muldraugh Magazine Road, and proceed north until reaching the MASA.

(d) On post ammo routes for ranges east of Highway 31W. Depart the MASA, proceed south via Muldraugh Magazine Road, turn left on 484th Engineer Road where 484th Engineer Road intercepts Baker Road, and turn left on Baker Road. Baker Road runs into Main Range Road. After reaching the intersection with Main Range Road, turn left onto Main Range Road (for delivery to northern training ranges) or turn right, and follow Main Range Road south until reaching the 4-way stop/intersection adjacent to the wash rack (on the right) or Holder Complex (on the left). Turn left at the stop sign, staying on Main Range Road for delivery to the various ranges east of the cantonment area (reverse the route for returning ammunition/explosives back to MASA).

(e) Ammo route to CP37/Densberger Base Camp or CP38. Depart the MASA and proceed south on Muldraugh Magazine Road. Muldraugh Magazine Road intercepts with Brandenburg Station Road adjacent the Brandenburg gate area. Turn right on Brandenburg Station Road, proceed west on Brandenburg Station Road departing the main post area. Turn left onto ramp leading to Highway 31W. At stop sign turn right onto 31W. At the traffic light turn right on Highway 60, proceed west until reaching CP37/Densberger Base Camp or CP38. Turn right into CP38 or CP37/Densberger and proceed to the ammo storage pad on the north side of the K-span (reverse the route for returning ammunition/explosives back to MASA).

b. Fort Knox on Post Ammunition/Explosive Movement Route is shown on map at Appendix N. Inbound Commercial Drivers Ammunition/Explosive Route is shown on map at Appendix O.

Chapter 8
Safety Organization, Structure and Training

8-1. General

Directorate/Activity Management shall define the scope of their individual Occupational Safety and Health Program and formally document this within a developed

SOP. The scope should include requirements for frequent scheduled/unscheduled self-audits of the safety program and how that is implemented within its respective areas.

8-2. Standard Operating Procedure (SOP) Minimum Requirements
The SOP shall include procedures for all hazard areas within the individual directorate. Referring guidance to relevant regulations is acceptable; however, procedures/operations peculiar to Fort Knox shall be adequately detailed within the SOP. The SOP should include how the Directorate/Activity and its employees will be expected to respond to severe weather and emergency situations. The individual SOPs shall be reviewed at least annually, when supervisors/managers change, as internal processes change, and whenever a safety related mishap/injury has occurred. The SOP should include measurable objectives, such as: compliance with AR 385-10 and this document, how the Directorate/Activity will attempt the prevention of injury and/or ill health of its employees, etc.

8-3. Hazard Identification and Mitigation.
JHA shall be completed for all tasks performed by employees. The level of detail shall be determined by the individual Directorate/Activity. JHA's shall be included as an addendum to the SOP. JHA's shall be reviewed at least annually, as internal processes change, and whenever a safety related mishap/injury has occurred.

8-4. Training.
Employees shall be trained at least annually on the Directorate/Activity SOP. Whenever a safety related mishap/injury occurs, employees within the affected area will be retrained on the related portion of the SOP in an effort to prevent future occurrences; should the event be a Directorate/Activity-wide process, then all employees within that Directorate/Activity shall receive this training.

8-5. Continuous Improvement.
Directorates/Activities will strive for continuous improvement of their safety program in order to continually reduce the risks to their employees. This should occur throughout the year, during SOP/JHA review, and during Directorate/Activity safety program self-audits. When considering changes to existing controls, take into account the reduction of risks using the hierarchy of controls:

a. Elimination
b. Substitution
c. Engineering controls
d. Signage/warnings and/or administrative controls
e. Personal Protective Equipment

8-6. Documentation.
Directorates/Activities will be expected to provide documentation of training, self-audits, review of JHA/SOPs, etc. During the annual SASOHI, ISO professionals will inspect for the requirements found within this document and specifically within this chapter. ISO professionals will also spot check for compliance with these requirements throughout the year in an effort to assist the Directorate/Activity with keeping their employees

safe and healthy. Documentation may include hard copy forms; however, electronic documentation is the preferred method.

Chapter 9
Hazard Identification.

9-1. General.
The identification and correction of unsafe practices and unsafe physical conditions through safety inspections is essential to a successful accident prevention program.

9-2. Inspections.
To properly direct efforts to eliminate the cause of accidental injuries and property damage, management personnel must ensure safety inspections are conducted at all levels. Minimum requirements for safety inspections are as follows:

a. All personnel within an organization have a responsibility to conduct safety inspections and report safety hazards and safety violations to their supervisor. Additional and Collateral Duty Safety Officers will inspect operations, and facilities and record the results of the inspection on Safety Hazard Log provides by the ISO at least quarterly.

b. Fort Knox Tenant Units/Organizations and Garrison Directorates will provide a list of all unit facilities inspected during the quarter, to include providing a copy of their HAZLOG by the 5th of the month following each quarter to the USAG Safety office.

c. ISO personnel will provide assistance to appointed CDSO's and ensure Garrison work sites are inspected at least once annually, using the SASOHI procedures described in AR 385-10. These inspections may be conducted with or without prior notification. A report of deficiencies observed by ISO during the inspection will be provided to the director/chief of the activity inspected. These reports will cite hazard severity, safety program achievements and deficiencies, and recommended corrective action. A copy of all surveys will be maintained by the Directorate/Activity Safety Manager/Officer.

d. The directorate or activity inspected will be required to respond to the ISO in writing concerning corrective action taken on each cited deficiency within the time frame indicated on the inspection report. Follow-up procedures will be established by the directorate/ activity to ensure each deficiency is corrected. After the prescribed period, the ISO will re-inspect a representative sample of noted deficient areas to ensure corrective action/abatement has been put in place, and whether this meets minimum safety standards. Abatement plans will be further followed up to ensure continued compliance on a quarterly basis, and to ensure a proper corrective action plan is being created.

9-3. Abatement Plans.
The establishment of a site-specific abatement plan is required by 29 CFR Part 1960, Occupational Safety and Health Programs for Federal Employees and AR 385-10 These plans if required will be written by the affected organization for all violations in RACs I, requiring more than 10 days to correct, RAC II requiring more than 30 days to

correct. RAC III, requiring more than 90 days to correct. See chapter 14 for descriptions of RACs. Violations often require abatement plans, a completed DA 4756 or electronic equivalent, solely because preparing, processing, scheduling, and actually doing the work requires more than 30 days. The unit will forward the work request to the ISO who will assign a RAC code to the work request and return to the POC for submission to DPW.

9-4. Reports of Unsafe or Unhealthful Working Conditions.
Management is responsible for the timely investigating and correcting (if necessary) all reports of unsafe or unhealthful working conditions such as Oral reports directly to the supervisor. Reports through operational channels. Telephone calls to the ISO. The Army Hazard Reporting System. The Army Hazard Reporting System provides a route for personnel to bring complaints directly to the installation level, by passing intermediate commands or supervisory elements. If an employee is not satisfied with the action taken to correct the alleged condition, they may make a written report to the Director, ISO, on DA Form 4755 (Employee Report of Alleged Unsafe or Unhealthful Working Conditions) or telephonically to (502-624-3381). Refer to Occupational Safety and Health Protection for Employees of the USAG and Fort Knox, DoD Safety and Occupational Health Protection Program, for reporting hazard. Reports will be investigated by Safety or health professional. The originator, if known, will be notified of the results of the investigation in writing within 10 working days following receipt of the hazard report. If the originator is dissatisfied with the Chief of Safety's response, they may appeal to the Garrison Commander who will review the findings and take appropriate action. If the originator is dissatisfied with the Garrison Commander's response, they may appeal in accordance with DA PAM 385-10.

a. Substantiated conditions will be documented on a DA Form 4753, Notice of Unsafe or Unhealthful Working Condition and posted at the location.
b. Oral reports directly to the supervisor.
c. Reports through operational channels.
d. Telephone calls to the ISO.
e. The Army Hazard Reporting System.
f. The Army Hazard Reporting System Operational Hazard Reports or DA Form 4755, provides a route for personnel to bring complaints directly to the installation level, bypassing intermediate commands or supervisory elements.

9-5. Responsibilities

a. ISO will—

(1) Perform investigation of all Class A and B accidents, documentation, and follow-up inspection for reports of unsafe or unhealthful working conditions within ten working days from receipt of the written report. Documentation report will contain, as a minimum:

(a) A narrative description and the specific location of the alleged unsafe or unhealthful condition.

(b) Confirmation of the existence of an unsafe or unhealthful working condition.

(c) Action taken or planned to eliminate or control a confirmed unsafe or unhealthful condition.

(d) A statement informing the employee filing the report that they may appeal any determination as outlined in this chapter.

(2) Maintain the investigation report and furnish a copy to the employee making the report and to the immediate supervisor.

(3) Maintain completed case files on employee reports of unsafe or unhealthful working conditions for five years following the end of the calendar year to which they relate.

(4) Post DA Form 4753, Notice of Unsafe or Unhealthful Working Condition at location of substantiated condition until the unsafe or unhealthful working condition has been abated.

b. **Supervisors will—**

(1) Conduct all Class C and D accident investigations and forward a completed copy to the ISO.

(2) Initiate prompt corrective action for unsafe or unhealthful conditions.

(3) Activate work stoppage where imminent danger exists.

(4) Ensure that no act of reprisal, coercion, etc., is taken against any employee for filing a report of unsafe or unhealthful working condition.

(5) Post Occupational Safety and Health Protection for Employees of the USAG and Fort Knox, DoD Occupational Safety and Health Protection Program (Poster) on all unit/activity bulletin boards to provide personnel with information on how to report safety and occupational health hazards.

9-6. Reporting Procedures

a. Verbally advise the workplace supervisor of the condition. Since many SOH problems can be eliminated as soon as they are identified, the existence of any formalized reporting procedures shall not preclude immediate correction by the supervisor whenever possible. Employees shall not be required to await the outcome of an oral report before filing a written notification of the condition. If an employee is not satisfied with actions taken to correct the alleged condition, they may make a written report to the Chief, ISO, utilizing the procedures outlined below.

b. Provide written notification of the condition.

(1) Written reports of the program shall utilize DA Form 4755, Employee Report of Alleged Unsafe or Unhealthful Conditions. This form is available at the Army Publications Directorate or AKO Reports can be submitted directly to the ISO.

(2) Reports that appear to involve imminent danger situations will be investigated immediately. If an imminent danger situation is discovered, the individual performing the inspection will take whatever steps necessary to ensure the immediate safety and health of affected personnel and notify the chain of command, up to and including the Commanding Officer. Upon completing the initial inspection, the investigator will initiate procedures outlined in this chapter.

(3) Investigations involving non-imminent danger reports will begin as soon as possible following receipt of the unsafe or unhealthful working condition report. Upon completing the initial inspection, the investigator will initiate procedures outlined in this chapter.

(4) The originator of the unsafe or unhealthful working condition report will be notified in writing within ten working days from the receipt of the report as to the result of

the investigation. If this ten working day suspense cannot be met, the originator will then be provided an interim response:

(5) If the determination is made that a hazard exists, the reply will include a summary of the action to be taken and anticipated date for corrective action. If the determination is made that a hazard does not exist, the reply to the originator will include the basis for that determination. The reply will encourage informal contact between the individual submitting the report and the SOH Office if additional explanations are desired. It will also inform the individual of his right to appeal as outlined in this chapter.

(6) In the event that the originator of the report is dissatisfied with the determination, they are encouraged to confer with ISO to attempt to arrive at a resolution. In the event that the originator remains dissatisfied, he/she is authorized to submit an appeal following the procedures set forth below.

(a) The originator may appeal to the installation commander. The Installation Commander will review the finding and take appropriate action.

(b) If the originator is dissatisfied with the Installation Commander's response, the originator may appeal to the Army Headquarters SOH official. Such appeals will be transmitted through channels to the Army Headquarters, which will review the finding, investigate as necessary and verify the appropriateness of the installation-level response.

(c) If the report of hazard is judged unfounded, a reply to the originator rejecting their appeal will explain the basis for the rejection and will advise him or her of their right to appeal to the Army designated Safety and Occupational Health Official Assistant Secretary of the Army for Installations and Environment. Upon receipt of an appeal, this official will review the case and reply to the originator with a statement of findings.

(d) If the appeal is rejected, the reply will advise the originator of their right to further appeal according to 29 CFR 1960 to the DoD designated occupational safety and health official.

Chapter 10
Procedures for Inspecting/Maintaining Bleachers.

10-1. General.

Organizations will utilize FK Form 5012 for safety inspection and maintenance of bleachers owned and maintained by garrison activities.

10-2. Responsibilities.

a. ISO will—

Provide assistance if needed or requested to Garrison Directorates and other organizations as assigned by the Garrison Command Group or Chief, Installation Safety Office. Conduct inspections of newly purchased or installed bleachers.

b. Directorate Collateral Duty Safety Officers will—

Maintain a current list of bleacher locations for which they are responsible. Conduct an inspection of all bleachers assigned prior to use, using appendix B, Bleacher Inspection

Criteria. Installation of new bleachers will be accomplished per the manufacturer's assembly instructions. Newly purchased bleachers will not be used until a safety inspection has been conducted.

Chapter 11
Protective Clothing and Equipment/Personal Protective Equipment (PCE/PPE).

11-1. General.
OSHA standards require that employers assess the workplace to determine if hazards are present which necessitate the use of PPE and clothing. All personnel required to wear PPE must do so when exposed to noise, foot, eye, head, hand, or breathing hazards. Directorates/activities must recognize that personal protective devices do nothing to reduce or eliminate the hazard itself. They merely establish a line of defense and any equipment breakdown, failure, or misuse immediately exposes the worker to the hazard. Many protective devices through misapplication or improper maintenance, can become ineffective without the knowledge of the wearer and can have potentially serious consequences. For this reason, proper equipment selection, maintenance, employee training (including equipment limitations), and mandatory enforcement of equipment use are key elements of an effective PPE program.

11-2. Policy.
Supervisors will ensure PCE/PPE is provided when required and enforce its use and maintenance. Contact the ISO for clarification of any questions on the use of PCE/PPE. Areas/Equipment where PCE/PPE is required will be appropriately marked. JHA and Safety Data Sheets (SDS) should be used in determining PPE requirements. Personal PCE/PPE will be provided at no cost to the employee. Defective or damaged PPE shall not be used. Employees shall be trained in the proper use, maintenance, storage and limitations of the selected PPE. PPE training shall include what PPE is necessary; when PPE is necessary; how to don, adjust and wear PPE; limitations of the PPE; proper care and maintenance, useful life and disposal of PPE. Supervisors will ensure personnel comply with the requirement to wear appropriate PCE/PPE. Failure to comply with this requirement may result in potential injury to employees and should be accompanied with administrative actions as stipulated and published in AR 690-700, Personnel Relations and Services (General).

11-3. Eye and Face Protection.
Protective eye and face equipment is required where there is a reasonable probability of injury that can be prevented by such equipment per OSHA (29 CFR 1910.133). Employees shall use eye protection at all times in a designated eye hazard area where flying particles and chips; splashes from liquids such as acids, caustics and solvents; and operations that generate hot slag or molten metal, welding glare, etc., can cause eye and/or face injury. Visitors as well as workers will wear protective eyewear suitable to guard against the hazard. Eyewash stations will be provided in workplaces where injurious chemicals are used, located within a 10 second unobstructed travel path (approximately 55 feet.) Where the workplace is supplied with potable water the eyewash shall

be plumbed, flushed weekly and inspected monthly. Workplaces without potable water may use portable eyewash units and must be inspected monthly.

11-4. Foot Protection.
Personnel exposed to potential foot hazards are required to wear safety footwear compliant with American National Standards Institute (ANSI) Z41). Guidance for type of footwear required for specific occupations will be determined by the JHA.

11-5. Head Protection.
Personnel exposed to injury from falling or flying objects will wear protective headgear. Examples of jobs requiring head protection include: working on construction and demolition sites, areas where objects are stored above head level, and when there is any potential for the head coming in contact with energized electrical circuits, such as power lines. Guidance for type of protection required for specific occupations will be determined by the JHA.

11-6. Hearing Protection.
Personnel exposed to noise hazardous environments (85 decibel (DB) or greater) must wear hearing protection per FK 40-8. Areas that are noise hazardous must be visibly marked with signs stating the area is noise hazardous. All areas identified with noise hazards will have a hearing conservation program IAW DA Pam 40-501.

Chapter 12
Severe Weather

12-1. General.
Each directorate/activity will be prepared to deal effectively with hazards associated with severe weather such as heat, cold, snow, ice, lightning, tornadoes, etc. Each directorate/activity will prepare a written plan for dealing with such hazards and will ensure all personnel are familiar with the plan. Appropriate training will be provided by supervisory personnel before each season. Communication of severe weather will be communicated in accordance with FK 385-3 (Procedures for Emergency Warning Announcements).

12-2. Snow and Ice Conditions.
In the event of inclement or hazardous weather on Fort Knox, guidance in FK 385-2, Procedures for Cold Weather Operations. To check road conditions on Fort Knox or verify delays, call 502-624-KNOX (5669). Press the corresponding number for additional information:

a. Force Protection (FPCON) status
b. Garrison Road Conditions - Green, Amber, Red or Black
c. Fort Knox Operational Status - Normal, Delay, Early Release, Closure, Etc.
d. Fort Knox Schools Information

Note: For Range road conditions, call (502) 624-2653 (COLD) and (502) 624-4328 (HEAT) for WBGT reading.

12-3. Tornadoes.
The tornado safety rules contained on www.ready.gov will be observed for maximum protection against tornadoes. Directorates/activities can also refer to their Emergency Action Plan (EAP) for specific guidance. Ensure personnel are familiar with the EAP.

12-4. Earthquakes.
The earthquake safety rules contained at www.ready.gov will be observed for maximum protection against earthquakes. Directorates/activities can also refer to their EAP for specific guidance. Ensure personnel are familiar with the EAP.

12-5. Lightning.
Supervisors at all levels will ensure that all personnel are aware of the safety precautions to take before and during lightning storms. Precautions will be implemented before the storm begins.

a. Workforce Precautions. In the event of an electrical storm, the following measures will be taken:

(1) Fort Knox cantonment, the IOC, Intranet and local television/radio stations will provide weather information.

(2) Weather briefings will be given when the potential for severe weather exists.

(3) The "30/30 rule" is one simple generally accepted criterion to use for cessation or resumption of activities. The "30/30 rule" is to cease activity when lightning is six miles away or 30 seconds from observation of lightning to sound of thunder (hence the first "30"). Use a "flash to bang" (lightning to thunder) count of five seconds equals one mile (10=2 miles; 20=4 miles; 30=6 miles). The second 30 in the "30/30 rule" means waiting 30 minutes after the last observation of lightning before resuming activities. Radios will not be used nor will personnel carry radios with antennas extended. Personnel will dismount from dozers, graders, all other machinery, and move approximately 100 yards away from equipment. Personnel will disperse, if caught in flat, open space, or on a bare hilltop. Personnel will maintain a low profile, if caught in an open, flat area. Personnel will take shelter in a deep ravine.

(a) When available, seek shelter in as large a building as possible. A well-grounded metal frame building offers the most protection. When inside, stay away from electric wiring, fireplaces, stoves, showers, bathtubs, sinks, cold water pipes, and other possible conductors of electricity.

(b) If adequate cover is not available, personnel will drop to their knees and bend forward, putting hands on knees. Do not lie flat on the ground or place hands on the ground.

(4) Prior to inclement weather, maintenance activities assigned range(s) or training area(s) should inspect any lightning protected bleacher shelters or open shelters with tables for obvious defects in the lightning protection system, such as broken ground straps, damaged lightning rods, etc. Report any deficiencies to Range Control or the Installation Safety Office.

(5) Outdoor recreational Activities; The following general rules apply during an electrical storm:

(a) Sporting events, other outdoor assembly must cease, and participants should find protective cover until the storm has passed. Do not fish, play golf, or participate in activities that involve the use of metallic instruments in open spaces. It is extremely hazardous to ride tractors, golf carts, motorcycles, and bicycles during lightning storms.

(b) Do not swim, operate boats, or participate in any aquatic activities during electrical storms.

(c) The use of hard line telephones and hand held radios during electrical storms will be held to a minimum. Lightning may be conducted through telephone lines. Playgrounds should immediately be evacuated to a safe area at the approach of, or during an electrical storm.

(d) Do not use plug-in electrical appliances such as hair dryers, razors, and televisions. All automation (computer) equipment should be unplugged during electrical storms.

Chapter 13
Recreational Safety

13–1. Introduction.
Public, family, child/youth, and recreational safety programs are an essential part of the Army Safety Program that must continually heighten accident prevention awareness during all on-duty and off-duty recreational programs for Soldiers, DA Civilians, and their Families. Sports and recreational activities continue to rank high as a major cause of accidental injury.

13–2. Policy.
a. As in all aspects of military planning and operations, Risk Management applies to public and recreational activities. Soldiers and DA Civilians must be reminded that injuries and fatalities occurring during off-duty time are detrimental to combat effectiveness; therefore, RM will be used by Soldiers when planning their off-duty activities. It is highly recommended that DA Civilians do the same.

b. The public, family, child/youth, recreation, and seasonal safety procedures and guidelines prescribed in DA Pam 385–10 will be used together with this chapter.

13-2. Off-Limits.
All bodies of water on the installation are off-limits except for fishing. Activities such as swimming, wading, water skiing, ice-skating, and ice hockey are not authorized on installation ponds, lakes, streams, or rivers. Refer to FK 210-3 (Recreational use of maneuver and live fire training areas) for authorized recreational use of training facilities and related hunting regulations.

Chapter 14
Mishap Risk Management.

14-1. General.

The Mishap Risk Management Process of Deliberate Risk Assessment (DRAW) is a five-step cyclic process that is easily integrated into the military decision-making process; it doesn't have to be a separate consideration, and shouldn't be. DA PAM 385-30, Mishap Risk Management, contains detailed risk management guidance and will be used to ensure the deliberate risk management process is conducted to standard. The standard for risk management is leadership at the appropriate level of authority making informed decisions to control hazards or accept risks. All leaders are responsible and accountable for assessing their operations as total systems. They must ensure that DRA decisions match the mission or event and that control measures reduce the risks to a level that supports their commanders' or activity leader's guidance. The degree of risk determines the level of authority at which a decision is made to accept risk. DD Form 2977 will be used to complete the 5-step risk management process prior to all events. The appropriate safety office shall review the DD Form 2977 before being signed by the appropriate level approval authority. A copy of DD Form 2977, Deliberate Risk Assessment Worksheet (DRAW) will be maintained at the event site and continuously updated as required. Safety professionals are authorized to take immediate corrective action upon identification of a hazardous condition or act that could result in personal injury and/or damage to equipment, and are further authorized to stop any operation or process that would immediately endanger life, health or property.

14-2. Risk Assessment.

A risk assessment is part of DRA. It can range from simple to complex. A risk assessment causes leaders to place identified hazards and threats in perspective relative to the mission. Hazards must be identified before the level of risk is determined.

14-3. Mission and Event Risk Assessment.

The DRA process consists of the following steps and is prepared by the organization responsible for the event, a copy will be forward to the ISO for validation and concurrence:

a. The first step in risk management is to identify hazards or factors that may adversely affect people, property, and mission/event accomplishment. All aspects of current and future situations, as well as historical problem areas must be considered. Other considerations are complexity and difficulty of the mission/event; terrain, environment weather and visibility; equipment; time available for execution, experience, supervision, training, morale and endurance of the personnel involved. Conditions can change quickly, requiring constant vigilance. List the hazards in the appropriate column of DD Form 2977. Hazard identification must take place during mission/event planning to be effective.

b. The second step is to assess hazards to determine their cumulative effect on the mission/event. Determine the potential loss and cost that could result from the identified hazards, based on probability and severity. Probability determines the likelihood that the hazard may cause a problem or an accident. Severity determines the expected result of an event in terms of the degree of injury, property damage or other mission/event impairing factors. Use the matrix to determine the initial level of risk and check the appropriate block (L - Low, M - Moderate, H - High, E - Extremely High) in appropriate column on DD Form 2977. The following tables extracted from DoDI 6055.01 will be used to determine the appropriate risk level based on evaluating the probability and severity of a potential outcome.

c. The third step is to develop controls and make risk decisions. Develop courses of action that eliminate hazards or reduce the risks. Controls may range from hazard alerts and physical warning signs to issuing protective clothing or avoiding the hazard altogether. List controls in appropriate column on DD Form 2977. After establishing controls, re-evaluate the hazards to determine residual risk, again using the matrix at Table J-1, and ensure risks are reduced to a level at which benefits outweigh potential costs, then check the appropriate block on DD Form 2977. Next, a decision must be made to accept any residual risk. The following tables extracted from DA PAM 385-30 will be used to determine risk acceptance decision authority.

Table 14-1
Military-civilian equivalent grades

Military rank	O-7 through O-10	O-6	O-5	O-4	O-3
Civilian grade	SES-1 through SES 6	GM-15/GS-15	GS-13 and GS-14	GS-12	GS-10 and GS-11
		Supervisor/manager Pay band 3	Supervisor/manager Pay band 2		varies

Notes:
OPNAVINST 11101.13J, 16 Dec 1992.

Table 14-2
Risk acceptance authority

	Risk acceptance matrix[3,4]				
	Duration of risk				
Category of risk	1 month or less	Greater than 1 month, less than 1 year	Greater than 1 year, less than 5 years	Permanent or greater than 5 years	Chartered system development programs
Extremely high risk	General officer	MSC CG-General officer	Army Headquarters CG	ASA(I&E)	Component Acquisition Executive (CAE)
High risk	Brigade CO or responsible O-6	General officer[1]	MSC CG-General officer	Army Headquarters CG	Program Executive Officer (PEO)
Moderate risk	Battalion CO[1] or responsible O-5	Brigade CO[1] or responsible O-6	General officer[1]	General officer[1]	Program manager
Low risk	Company CO[2] or responsible O-3	Battalion CO[2] or responsible O-5	Brigade CO[1] or responsible O-6	Brigade CO[1] or responsible O-6	Program manager
Tolerable risk	Not required	Not required	Not required	Not required	Not required

Table 14-3
Risk acceptance authority-continued

Legend for Table 4-2:
In organizations led by civilian leaders, equivalent civilian grades may be substituted for military ranks, see table 4-1.
The term "Army Headquarters" used in the table includes ACOMs, ASCCs, DRUs, and the Army National Guard.
Notes:
[1]May delegate in writing authority to accept at the next lower level.
[2]May delegate in writing authority to accept risk at lower levels.
[3]When the risk acceptance authority resides in a combatant command, refer to para C1.5 of DoD 6055.09-STD.
[4]Table 4-2 cannot be used for risk acceptance of new construction involving explosives and chemical agent violations; see para 4-12, below.

c. Step four is to implement controls or put into place controls that eliminate the hazards or reduce their risks. This may be done through verbal or written orders, standard operating procedures, performance standards, safety briefings, rehearsals, PPE, and as a last resort, engineered controls. Ensure unit members and others associated with the mission/event clearly understand the controls. List how controls will be implemented in appropriate column on DD Form 2977.

d. Step five is to supervise and evaluate. Supervision is more than just ensuring that people do their job. It also means following-up and continuously evaluating. It means fine-tuning the operation to accommodate unforeseen issues and incorporating lessons learned into after action reports. Supervision, evaluation requirements and responsibilities are listed in appropriate column of DD Form 2977.

e. Indicate the appropriate residual risk level for the mission/event in appropriate block on DD Form 2977. Overall residual mission risk is determined based on the hazard having the greatest residual risk. For example, if one hazard has a high residual risk, the overall residual risk of the mission/event is high no matter how many moderate or low risk hazards are present. Determining overall mission risk by averaging the risks of all hazards is not valid. The DD Form 2977 will then be signed by the proper authority as provided in Table 14-2 above.

Chapter 15
Respiratory Protection Program.

15-1. General.

This is a mandatory program. Personnel must comply with the RPP as outlined below:

a. Respirators are considered an acceptable method of protecting the health of DA personnel when the Installation Safety Manager (ISM)/Industrial Hygienist (IH)/ Occupational Health Nurse (OHN) determine the following conditions exist:

(1) Routine operations in which there are no feasible engineering controls and/or work practices that would adequately eliminate exposure to the hazard if used.

(2) Intermittent, non-routine operations (such as those not exceeding 1 hour/day or 1 day/week) when there are no feasible engineering controls and/or work practices available that would adequately control exposure to the hazard.

(3) Interim periods when engineering controls are being designed and installed.

(4) Emergencies.

(5) Federal regulation or operating license requires use of respirators.

b. Where economically feasible and the technology exists for eliminating or reducing the cause of an environmental respirator hazard, the following engineering control methods will be implemented:

(1) Substitution of less toxic substances.

(2) Installation of local exhaust systems.

(3) Natural or mechanical ventilation.

(4) Segregation or isolation of processes or operations.

c. Respiratory protection will be furnished at no cost to the employee and will be used as a condition of employment when required by the job. Employees hired after 12 December 1994 will be required to shave facial hair to wear the facial seal respirator or if it interferes with the valve functions.

d. Surgical masks worn by MEDDAC personnel (operating room personnel, dentists, dental technicians) are not considered respirators and are not covered by this regulation.

e. Military unique masks and chemical, biological, radiological, and nuclear (CBRN) respirators used for emergency response are exempt from this regulation.

f. Military firefighter masks and respirators used for emergency response are exempt from this regulation.

g. "Dust masks" used on a voluntary basis do not require a medical evaluation or fit test, but require employees be given a copy of CFR 1910.134, appendix D.

15-2. Responsibilities.

a. The ISO is responsible for the following:

(1) Administration and management of the Fort Knox RPP.

(2) Appoint an individual within ISO as the Installation Respiratory Program Director (IRPD)/Installation Respirator Specialist (IRS).

(3) Establish and annually evaluate the Fort Knox RPP per AR 11-34.

(4) Conduct random worksite inspections to ensure all respirators are approved and used, stored, cleaned, maintained, and disposed of properly.

(5) Provide guidance and supervision in establishing SOPs for respirator use.

(6) Designate, in coordination with the IH, the type of respiratory protection equipment (RPE) to be purchased and used.

b. The IRPD/IRS are responsible for the following:

(1) Plan, program, and annually evaluate the RPP.

(2) Approve all SOPS prepared for respirator use before publication.

(3) Function as the central focal point for records of training/fit testing.

(4) Coordinate with PMS, MEDDAC, regarding the type of RPE to be purchased or used.

(5) Initiate prompt corrective action on any deficiencies detected in the RPP.

(6) Coordinate with the Chief, Fire Prevention and Protection Division, DES, to ensure a monthly inspection of emergency-use respirators and self-contained breathing apparatus (SCBA) is conducted.

(7) Train or ensure training of supervisors and workers meet requirements of AR 11-34, paragraph 3-7, and 29 CFR, 1910.134. A respirator user card will be issued, by the IRS, at the completion of training.

(8) Perform required initial fit testing and ensure annual testing thereafter or as defined in AR 11-34, paragraph 3-7c.

(9) Maintain necessary inventory levels of respirators, accessories, and spare parts as needed for instructional purposes.

c. Civilian Personnel Advisory Center will provide administrative support as required to all individuals responsible for ensuring/enforcing the RPP at Fort Knox. Examples of this support are:

(1) Ensuring CPAC addresses requirements for respirator use in Fort Knox job descriptions.

(2) Referring personnel being considered for employment in areas of operations requiring the use of RPE to the OH clinic for a pre-employment physical.

(3) Reassigning employees presently working in areas requiring RPE that are unable to wear the required protection as determined by the OH clinic and ISO.

d. Preventive Medicine Services (PMS), MEDDAC, will provide the following:

(1) Worksite evaluations to determine hazardous environments where respiratory protection is required and provide copies of evaluations with recommendations to ISO. Ensure proper documentation is maintained to show breathing air systems have been tested for quality.

(2) Prescribe and disseminate instructions to worksite supervisors as to the type of approved respirator required for the task involved.

(3) Provide technical guidance to the administrator of the installation RPP.

(4) Maintain an inventory of hazardous areas in which respiratory protection is required. Provide a copy of updated listing to ISO by 31 January yearly.

(5) Provide a pre-placement medical examination and periodic medical evaluation per established directives for individuals requiring respiratory protection before job assignment.

(6) The IH and OHN will use FK Form 3149-R-E, Respiratory Protection Request, to document their required action.

(7) Perform fitting for corrective lenses inside the full-face-piece respirator to ensure proper vision and good fit.

(8) Maintain Respirator Evaluation Questionnaire (see 29 CFR 1910.134, appendix C) for each employee in the RPP (mandatory).

e. The DPW will be responsible for the following:

(1) Install and maintain breathing air systems capable of providing Grade "D" breathing air where required, to include the use of only "oil-free" compressors designed for breathing air systems.

(2) Maintain compressed air breathing system alarms in an operable manner.

(3) Implement a schedule of routine maintenance for servicing and quality assurance evaluations of airline purification panels and changing filters and cartridges as necessary.

(4) Install airline couplings that are incompatible with outlets for other gas systems.

f. The Fire Department, DES is responsible for the following:

(1) Provide training and fit-testing for firefighters. In addition provide training on the proper cleaning and disinfecting methods to be used on masks after every use.

(2) Inspect emergency use respirators and SCBA equipment monthly.

(3) Be available for emergency situations where an SCBA would be required to enter a contaminated atmosphere.

g. Supervisors will accomplish the following:

(1) Complete section 1 of FK Form 3149-R-E, Respiratory Protection Request, on all personnel that have been identified to be in the respiratory program.

(2) Develop an SOP on respirator use for their operation. Ensure SOP is approved by the IRS and PMS and employees are familiar with the SOP.

(3) Indicate job requirement to use respiratory equipment on the Standard Form (SF) 52 (Request for Personnel Action) when it is submitted to CPAC for recruitment to fill a position. Supervisors will ensure that selected personnel for vacancies requiring respiratory protection are advised of this requirement before acceptance of the position.

(4) Conduct and document monthly inspections of self-contained breathing apparatus and emergency escape equipment.

(5) Post areas where respiratory protection is required.

(6) Conduct routine inspections to ensure the proper RPE is used by employees, where required, and employees adhere to instructions relative to proper use and maintenance requirements. Consider user compliance in performance appraisals.

(7) Ensure employees receive periodic medical examinations by providing the OHS with an FK Form 3149-R-E, Respiratory Protection Request, on all individuals in the respiratory program.

(8) Provide facilities for cleaning, maintenance, and proper storage of equipment.

(9) Ensure workers are fit tested by respirator specialists before work assignment.

(10) Ensure users are supplied and trained in the use and care of appropriate RPE as specified by ISO/PMS and maintenance of this equipment meets requirements outlined in this document.

(11) Ensure individual to be fit tested on tight fitting respirators is clean shaven per AR 11-34, paragraph 3-5d which states, "Tight-fitting respirators will not be worn by personnel who have conditions that could interfere with the face-to-face piece seal or valve function. These conditions include, but are not limited to, facial hair, deep scars, facial jewelry, and missing dentures."

(12) Ensure training for personnel on RPE is documented and kept current by the respirator point of contact.

(13) Ensure respirators are maintained per manufacturer instructions. Respirators used by more than one person shall be thoroughly cleaned and disinfected after each use.

(14) Do not permit employees to wear contact lenses when wearing full face-piece respirators, helmets, hoods, or suits.

(15) Ensure procedures for rescue and standby personnel in Immediately Dangerous to Life or Health (IDLH) situations are incorporated into the unit SOP.

h. Unit/Activity Respirator Specialist are responsible for the following:

(1) Coordinate with supervisors and identify to ISO all personnel, by section, who are required to use respirators in their job.

(2) Coordinate with supervisors and schedule personnel for initial training/fit test and periodic fit test. Maintain training records and suspense for training.

(3) Update respirator users' records after determining that all requirements for medical evaluation, training, and fit testing are met.

(4) Attend training sessions and meetings scheduled by ISO.

i. Respiratory equipment users will comply with the following:

(1) Report to the OHS when scheduled for periodic medical evaluations.

(2) Use respirators according to the manufacturer's instructions, training provided, and work area SOP.

(3) Inspect the respirator before each use.

(a) The inspection will include a visual parts check of headbands, mask, and valves for deterioration. Ensure the respirator has no holes, cracks, leaks, or other obvious defects.

(b) Perform positive and negative pressure test to ensure respirator is performing properly.

(4) Notify immediate supervisor if it is suspected that RPE is needed or that the respirator is defective.

(5) Adhere to instructions governing the proper use, maintenance, and storage practices of the respirator.

(6) Store respirators under conditions that will protect them against dust, sunlight, deformation, and the concentration of contaminants and environmental conditions.

15-3. Procedures.

a. Selection of RPE.

(1) All respirators procured for use will be approved respirators (tested and listed as satisfactory jointly by the National Institute for Occupational Safety and Health and the Mine Safety and Health Administration). Any modification that is not authorized by these agencies voids the approval of a respirator. Component replacement, adjustments, or repair will follow the manufacturer's recommendations only. A respirator is approved as a whole unit with specific components.

(2) Filtering face pieces (dust masks) that are mandatory require medical evaluations, fit testing, and training.

(3) The correct respirator for each job will be specified by PMS based on environmental evaluations and requirements contained in OSHA 29 CFR 1910, Subpart Z. Once PMS, MEDDAC, has identified specific jobs which require respiratory PCE, the supervisor will complete Section I of FK Form 3149-R-E on each individual working in the identified positions. Section II of the form will be completed by the Industrial Hygiene Section and forwarded to the Civilian Health Clinic to ensure physicals/pulmonary functions testing are completed on workers in the identified positions. After assessments and physicals are completed, the FK Form 3149-R-E is forwarded to the IRS, ISO.

(4) Industrial respirators (negative pressure types) will not be used in confined spaces or where concentrations of contaminants are IDLH or in any atmosphere containing less than 19.5 percent oxygen. For entry into confined space or IDLH atmospheres, only self-contained breathing apparatus or supplied airline respirators will be used, and then only where specific controls and requirements are applied where experts

have been consulted and written procedures developed to ensure safe operation. Regulations require anyone planning any confined space entry to contact the ISO.

(5) In the event an employee desires not to wear a facial respirator, the unit/activity will negotiate with the union possible optional respiratory equipment. This applies only for employees in which respirator use is not a condition of employment.

(6) The respirator does not provide protection to exposed areas of the body against vapors, gases, and airborne particulate matter that irritates the skin or that may be absorbed by the body through penetration of the skin. The use of specialized hand and/or body coverings may be required for protection.

b. Use of RPE.

(1) A respirator will be assigned to an employee for their exclusive use except when provided for emergency use only.

(2) Supervisors will ensure that permanently assigned respirators are marked indicating who it is assigned to. The mark will not affect the respirator performance in any way. The issue date will be recorded on inventory maintained by the supervisor.

c. Initial and annual respiratory protection training and respiratory fit testing will be conducted by ISO. Training for employees will include:

(1) Why the respirator is necessary and how improper fit can compromise the effectiveness of the respirator.

(2) Limitations and capabilities of the respirator.

(3) Respiratory use in emergency situations.

(4) How to inspect, don (put on), remove, use, and check the seal of the respirator.

(5) Medical signs and symptoms that limit or prevent the effective use of the respirator.

(6) The requirements of the respiratory protection standard.

d. The training will be given prior to the respirator being used in the workplace and at least annually thereafter.

e. Contact lenses will not be worn with full face-piece respirators, helmets, hoods, or suits.

f. Each area and operation requiring respirators will be marked to inform personnel of the work hazards or health risks involved and the type of respirator required.

g. Testing for fit.

(1) Fit testing will be conducted annually. In addition, fit testing will be repeated whenever physical changes could affect respirator fit, i.e., facial scarring, dental changes, cosmetic surgery, or an obvious change in body weight. Any individual with facial hair (stubble beard growth, beard, mustache, or sideburns), which protrudes into the sealing surface, as determined by the IRS, will be refused a fit test. Fitting will be based only on a clean shaven face.

(2) A fit test is not required for loose fitting face pieces like hoods.

(3) Personnel who may use loose fitting escape respirators only are not required to have a fit test or medical evaluation. These personnel will have specific training on the purpose, use, and limitations of the respirator.

(4) Before entering an area containing a hazardous atmosphere, the respirator wearer should test the tightness of the seal by performing one of the tests below:

(a) Positive Pressure Fit Check. Place thumb through large opening in exhalation valve guard to close the exhalation valve and exhale. If the mask bulges slightly and

there is no evidence of air leaks, a tight fit has been obtained. If an air leak is detected, reposition the mask and/or tighten straps and repeat the test.

(b) Negative Pressure Fit Check. Place palms of hands over opening on filters and inhale for 5-10 seconds. If mask collapses, you have a good seal. If an air leak is detected, reposition the mask and/or adjust straps. Repeat the test.

h. Inspection, Maintenance, and Care of respirators.

(1) When a respirator is issued to an individual, that person is responsible for the primary maintenance and care of that respirator. Where respirators are kept ready for emergencies by a shop or operating activity, the work area supervisor is responsible for establishing the respirator maintenance and cleaning program. This program will be adjusted for the number of types of respirators in use, working conditions, and hazards involved and will include the basic services of inspection for defects, cleaning and disinfecting, repair, and storage. Equipment will be properly maintained to retain its original effectiveness.

(2) No attempts will be made to replace components or to make adjustments or repairs to the mask beyond the manufacturer's recommendations. If the mask is unserviceable dispose of properly.

(3) All respirators will be inspected routinely before and after each use and during cleaning. A respirator that is not routinely used but kept ready for emergency use will be inspected after each use and at least monthly to ensure that it is in satisfactory working condition using the following steps:

(a) Examine the face piece for excessive dirt, cracks, tears, holes, or distortion from improper storage or inflexibility.

(b) Examine the head straps or head harness for breaks, loss of elasticity, and broken or malfunctioning buckles and attachments.

(c) After removing the cover, examine the exhalation valve for the following: Foreign material, such as detergent residue, dust particles, or human hair under the valve seat. Cracks, tears, distortion in the valve material, or improper insertion of the valve body in the face piece. Cracks, breaks, or chips in the valve body, particularly in the sealing Surface Missing or defective valve cover or improper installation of the valve body.

(4) Examine the air-purifying elements for the below:

(a) Incorrect cartridge, canister, or filter for the hazards.

(b) Incorrect installation, loose connections, missing or worn gaskets, or cross thread in holder.

(c) Expired shelf-life date on cartridge or canister.

(d) Cracks or dents in outside case of filter, cartridge, or canister.

(e) Evidence or prior use of sorbent cartridge or canister indicated by absence of sealing material, tape, foil, etc., over inlet.

i. A monthly inspection will be conducted on all self-contained breathing apparatus type respirators. Air and oxygen cylinders will be fully charged according to the manufacturer's instructions, and it will be determined that the regulator and warning devices function properly.

j. Respirators issued to specific individuals will be cleaned and disinfected as frequently as necessary to ensure that skin-penetrating and dermatitis-causing contaminants are removed from respirator surfaces. Respirators maintained for emergency use or used by more than one person will be cleaned and disinfected after each use.

k. Cleaning and Disinfecting. The following approved procedures will be used for cleaning and disinfecting respirators:

(1) Remove any filters, cartridges, or canisters. NOTE: Do not submerge in cleaning or disinfecting solution.

(2) Wash the face piece and breathing tube in a cleaning solution of 1 tablespoon dishwashing soap to 1 gallon of warm water. To disinfect the face piece and breathing tube, use 2 tablespoons of household bleach to 1 gallon of warm water.

(3) Rinse completely in clean, warm water.

(4) Air dry in a clean/non-contaminated atmosphere.

(5) Clean other respirator parts as recommended by the manufacturer.

(6) Insert new filters, cartridges, or canisters as specified by the manufacturer, and ensure the seal is tight. Filter assemblies will be replaced if the wearer notices any odor, difficulty in breathing, or ill effects from fumes.

(7) After inspection and cleaning, respirators will be stored to protect them against dust, sunlight, heat, extreme cold, excessive moisture, or damaging chemicals. Respirators placed at stations and work areas for emergency use will be stored in compartments built for that purpose. The compartments must be clearly marked to indicate their content and must be quickly accessible at all times. Routinely used respirators may be stored in plastic bags, but respirators will not be stored in places such as lockers or toolboxes unless they are in containers or cartons. Respirators will be placed or stored so the face piece and exhalation valve will rest in a normal position in order not to impair the respirator function by affecting its physical configuration.

15-4. Records

Records of training, fit testing, medical evaluation and applicable appendices will be in the employees' file and kept for the duration of employment.

Chapter 16
Safety Awards Program.

16-1. General.

Commanders at all levels, directors, and chiefs of activities are responsible for establishing procedures for implementing the Safety Awards Program. Various individual and unit awards are available and identified in AR 385-10. All awards will be coordinated through the Installation Safety Office.

16-2. Individual Accident Prevention Awards.

Any individual recognized for instilling a safety culture within their directorates or performing safety duties in an outstanding manner can be nominated quarterly. Directors, supervisors and managers may submit one nomination quarterly to the ISO. Submissions should address the individual's involvement in the following:

a. A safety inspection program to eliminate unsafe conditions and unsafe acts.

b. A safety education and promotion program centered on identified problems.

c. Investigation and reporting of accidents.

d. Analysis of unit accident experience to determine problems and implementation of countermeasures.

e. Promoting a safety culture in their organization.

Various types of Safety Awards are addressed and authorized in AR 385-10 and DA Pam 385-10.

16-3. Documentation.

All safety awards will be documented in the individual's personnel file. Safe driving awards will be documented on the individual's DA Form 348, Equipment Operators Qualification Record.

16-4. Award Presentation.

Awards will be presented to recipients at suitable ceremonies to emphasize the leadership's importance in reducing vehicle and equipment damage and personal injury losses. Local publicity (FK form 5064), will be submitted to the Fort Knox Public Affairs Office will accompany the presentation of safety awards.

16-5. Special Awards.

Commanders, directors, and chiefs are encouraged to establish special safety awards, locally procured or devised, for their activities and units per AR 385-10.

Chapter 17
Special Emphasis Areas.

17-1. General.

Areas of emphasis in units and activities will vary depending on the operation, degree of hazard, and operational difficulty. Such potential loss areas should be identified so effective controls can be instituted.

17-2. Motor Pool Operations and Maintenance Safety

SOPs will be prepared, published, and posted in the work area covering each potentially hazardous operation such as, but not limited to:

a. Painting.
b. Using grease racks and pits.
c. Tire changing and repair.
d. Battery shops.
e. Welding.
f. Servicing brake linings and clutch pads.
g. Maintenance shops.
h. Respiratory protection.
i. Hazard communication program.

17-3. Precautions against Carbon Monoxide Poisoning.

Carbon monoxide, produced by incomplete combustion of fuels, is a serious hazard in areas where fuel-burning devices are used with insufficient ventilation. To prevent injuries from carbon monoxide:

a. Unit Commanders, directors and activity chiefs, as applicable, will:

Request surveys to be performed by IH to determine if a hazard from carbon monoxide exists within their areas of responsibility. Surveys should be made before the cold weather season in shops, warehouses, and other closed areas where combustible fuel is used. The interior of Army vehicles, cranes, and construction equipment using a combustible fuel will be checked for defective exhaust systems.
Assure personnel are oriented concerning the hazards of carbon monoxide before the cold weather season.

b. Precautions will be taken to safeguard personnel against carbon monoxide gas poisoning from main and auxiliary engine exhaust and fuel burning personnel heaters while operating, servicing, or being transported in motor vehicles.

c. Exhaust systems will be checked for leaks monthly, and engines will not be allowed to idle for an extended time without adequate ventilation.

d. Vehicle drivers will not park any military vehicle with engines running merely to keep the vehicle or driver warm.

17-4. Electrical Safety.

a. Electrical safety awareness and promotion. All personnel will be made aware of electrical hazards in their environment and how to recognize electrical hazards and further protect themselves from the identified electrical hazards. All leaders will include electrical safety awareness in their organization's safety training program. Electrical safety awareness will include basic elements of electricity, general electrical hazards, recognition of faulty wiring and equipment defects, injury causation factors, control measures including location of circuit de-energizing equipment, emergency response procedures, and local national electrical safety requirements (if applicable) to mitigate risk of potential local electrical safety hazards.

b. Electrical safety training requirements. Employee and supervisor training will be tailored to the hazards of the employee's work environment. A work environment where the employee is close to exposed electric circuits operating at 50 volts or more to ground poses a hazard. 29 CFR 1910.332 lists occupations typically considered as requiring such training. Employees and supervisors of those employees must be qualified (that is, receive training specific to the work) if they work on or near exposed energized parts.

(1) Qualified person. A qualified person is one who has skills and knowledge related to the construction and operation of the electrical equipment and installations and has received safety training to recognize and avoid electrical related hazards. Qualified persons will be trained according to NFPA 70E, 110.6(D)(1) and DA Pam 385–26.

(2) Unqualified person. An unqualified person is one who does not work close to exposed energized circuits and is untrained in recognizing hazards associated with working on such circuits but may be in the vicinity of qualified personnel close to exposed energized circuits. Unqualified persons will receive training to include, at a minimum, recognition of electrical safety warning signs, location of shutoff switches and breakers, and emergency call procedures.

c. Workplace training (general). All Army personnel will receive general electrical safety training as an element of their organization's SOH training program. Supervisors are responsible for ensuring this training is completed. Training should include, but not be limited to, basic properties of electricity; proper use of extension cords, power strips,

surge protectors, and adapters; and personal protective equipment, appropriate response to electrical mishaps, electrical heaters, and other electrical equipment used in the workplace.

d. All electrical safety training will be documented. Supervisors will maintain records of training and ensure that training is updated annually. Employees that face a risk of electric shock that is not reduced to a safe level by the electrical safety features of the equipment or electrical installation requirements (for example, those working close to exposed electric circuits operating at 50 volts or more) will be trained to understand the specific hazards associated with electrical energy. Army personnel working in electrical related operations will be given initial electrical safety training upon assignment to the job and updated whenever equipment processes and/or hazards change. Safety awareness material (such as posters and handouts) should be used to strengthen training and maintain a safe culture around electrical equipment.

e. Retraining. 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.

f. Technical assistance Directors, managers, commanders, and supervisors are encouraged to contact the controlling activity safety manager about their local electrical safety program. The safety manager can provide needed information and recommend practical measures to assist leaders in establishing an effective comprehensive electrical safety program. Safety Managers will include electrical safety as a major element of additional and/or CDSO officer training.

17-5. Machine Safety.

Rings, other jewelry and loose clothing will not be worn when working around moving machinery, during vehicle maintenance or during other hazardous industrial operations. Long hair should be bound when working around moving parts. All machine guarding will be properly installed, serviceable and not modified in any manner.

17-6. Slip, Trip and Fall Hazards.

All aisles, passageways, stairs, sidewalks, and other walking surfaces will be free of slipping, tripping or falling hazards.

17-7. Bulletin Boards.

The following items will be posted in the "Permanent" section of military and civilian bulletin boards:

a. Unit Commander's, Directors or Activity Chiefs Safety Policy memorandum.
b. Department of Defense Occupational Safety and Health Protection Program Poster and the OSHA "It's the Law" poster (applies to civilian activities).
c. Department of Labor Form CA-10, "What A Federal Employee Should Do When Injured at Work." Applies to Civilian activities.
d. OSHA Notice of Violations.
e. OSHA 300 Log from 1 Feb through 30 April.

17-8. Color Coding.
The marking of hazards and painting of safety equipment will be in accordance with OSHA regulations. 29CFR 1910 and DA PAM 385-11 (Army Guidelines for Safety Color Codes, Signs, Tags, and Markings) have examples of markings and signage for appropriate areas.

17-9. Required Safety Training.
One time required safety training can be found under the training link on the Combat Readiness/Safety Center website https://safety.army.mil. This training is mandatory for all leadership and employees. The presentations include The Manager's Safety Course, The Supervisor's Safety Course, The Employee's Safety Course, The Additional Duty Safety Course, and the Collateral Duty Safety Course. Training is also available for assigned military and civilian personnel, which must be completed within 60 days from duty appointment.

17-10. Hearing Conservation.
The Hearing Conservation Program will be followed IAW requirements of DA Pam 40-501, Army Hearing Program.

17-11. Smoking Policy.
Policy for controlling tobacco use; tobacco use is prohibited in all DA-occupied workplaces except for designated smoking areas, as authorized by DODI 1010.15, Smoke-Free DoD Facilities. The workplace includes any area inside a building or facility over which DA has custody and control, and where work is performed by military personnel, civilians, or persons under contract to the Army.

a. Notices will be displayed at entrances to buildings and facilities over which DA has custody and control that state that smoking is not allowed except in designated smoking areas. Designated smoking areas must comply with the provisions of DODI 1010.15.

b. If possible, designated outdoor smoking areas will provide a reasonable measure of protection from the elements. However, the designated areas will be at least 50 feet from common points of ingress/egress and will not be located in areas that are commonly used by nonsmokers.

c. Use of all tobacco products is prohibited in all military vehicles and aircraft, and in all official vans and buses.

17-12. Confined Spaces
In order to prevent injury and possible death, Army personnel will not enter a permit-required confined space without any approved permit, personal protective clothing, monitoring equipment, or use of isolation/lockout/tagout procedures.

a. A confined space is a space that is large enough and configured for an individual to enter and perform work, has limited or restricted means to enter and perform work, has limited or restricted means for entry or exit, and is not designed for continuous employee occupancy.

b. A permit-required confined space is a confined space that has any one of the following characteristics:

(1) Contains or has the potential to contain, a hazardous atmosphere.

(2) Contains a material which has a potential for engulfing an entrant.

(3) Is internally configured such that an entrant could be trapped or asphyxiated.

(4) Contains any other recognized serious safety or health hazard.

c. Confined spaces are, but are not limited to, boilers, cupola, degreasers, furnaces, pipelines, pits, pumping stations, septic tanks, sewage digesters, sewers, manholes, silos, storage tanks, utility, vaults, vats, tunnels, cells, ducts, or similar type enclosures.

d. Procedures for working in confined spaces include—

(1) Installation safety office in conjunction with preventive medicine will inventory all confined space possibilities to identify all permit-required confined spaces, develop a confined space training program, and evaluate confined space work sites to ensure proper protective equipment is used where mechanical ventilation sufficient to maintain nonhazardous atmosphere is not provided. This evaluation should include—

(a) Respiratory equipment.

(b) Protective clothing.

(c) Safety line.

(d) Body harness.

(e) Communication equipment.

(f) Air monitoring equipment.

(g) Air testing equipment.

(2) Confined space firefighter rescue team will—

(a) Appoint a confined space firefighter rescue team.

(b) Ensure personnel assigned to the confined space rescue team are provided with and trained to properly use the personal protective equipment, including respirators and rescue equipment necessary for making rescues from the installation's permit spaces.

(c) Ensure the rescue team is trained to perform the assigned rescue functions and has received the training required for authorized entrants.

(d) Ensure rescue teams practice making permit space rescues at least once every 12 months, by means of simulated rescue operations in which they remove dummies, mannequins, or personnel through representative openings and portals whose size, configuration, and accessibility closely approximate those of the permit spaces from which rescues may be required.

(3) **Personnel working in confined space will observe the following guidelines**:

(a) Do not enter a confined space without proper protective equipment where known explosive or oxygen deficient atmosphere exists.

(b) Establish confined space entry procedures.

(c) Develop warning signs and post at confined space areas needing a permit in accordance with 29 CFR 1910.

(4) Emergency procedures and training are provided for personnel assigned to a confined space entry job.

(5) Confined spaces are evaluated and analyzed by authorized Entrants/Supervisors Installation Safety before entry is permitted.

(6) Government confined space entry permits are reviewed by the Installation Safety Office locally to be posted by each confined space that poses a hazardous condition so that all personnel can read it.

(7) **Supervisors of employees working in confined spaces will—**

(a) Ensure the confined space is marked and identified and on the Installation Safety Office list of designated confined spaces prior to entry.

(b) All Government employees will coordinate for permits for all confined space entrants with the Installation Safety Office. Contractor managed and owned will adhere to USACE EM 385-1-1 and DA Pam 385-10 which states Army contractors will be required to have a Safety and Occupational Health Program implemented that is tailored to meet the safety requirements of each contract and the associated tasks and products of that contract.

(c) All entrants / supervisor will initiate and post confined space entry permit at each confined space that poses a hazardous condition where all personnel can read it.

(d) All will know the hazards that may exist during entry, including information on the mode, signs or symptoms, and consequences of the exposure.

(e) All will verify, by checking that the appropriate entries have been made on the permit, that all tests specified by the permit have been conducted and that all procedures and equipment specified by the permit are in place before endorsing the permit and allowing entry to begin.

(f) Terminate the entry and cancel the permit upon completion of job daily; a permit will not exceed 12 hours.

(g) Verify that rescue services are available and that the means for summoning them are operable.

(h) Do not permit unauthorized or untrained individuals to enter or who attempt to enter the permit space during an entry operation.

(i) Ensure safety precautions (proper respiratory equipment, protective equipment, safety line, safety harness, tri-pod etc.) are inspected in accordance with the preventive medicine services and the installation safety offices.

(j) Establish confined space entry procedures and training for confined space employees on entrant and rescue procedures.

(k) Provide emergency procedures and annual training for personnel assigned to a confined space entry jobs IAW OSHA 29 CFR 1910.146.

(l) Ensure confined space is monitored continuously in areas where authorized entrants are working to determine if acceptable entry conditions are being maintained during the course of the entry operations.

(8) **Authorized entrants will–**

(a) Know the hazards that may be faced during entry, recognize the signs and symptoms of exposure to the hazards, and understand the consequences of exposure to a hazard.

(b) Communicate with the attendant as necessary to enable the attendant to monitor entrant status and to enable the attendant to alert entrants of the need to evacuate the space.

(c) Properly use the following equipment:

1. Testing and monitoring equipment.

2. Ventilating equipment needed to obtain acceptable entry conditions.

3. Communications equipment.

4 Personal protective equipment (insofar as feasible engineering and work practice controls do not adequately protect employees).

5. Lighting equipment needed to enable employees to see well enough to work safely and to exit the space quickly in an emergency.

6. Barriers and shields as required.

7. Equipment, such as ladders, needed for safe ingress and egress by authorized entrants.

(d) Exit the permit space, unless it is physically impossible to do so, when either the attendant orders evacuation, the automatic alarm is activated, or the entrants perceive that they are in danger.

(9) **Attendants will–**

(a) Continuously maintain an accurate count of all persons in the confined space.

(b) Know the hazards that may be faced during entry, including information on the mode, signs, or symptoms, and consequences of the exposure

(c) Be aware of possible behavioral effects of hazard exposure in authorized entrants.

(d) Remain outside the permit space during entry operations until relieved by another attendant.

(e) Communicate with authorized entrants as necessary to monitor entrant status and to alert entrants of the need to evacuate the space.

(f) Monitor activities inside and outside the space to determine if it is safe for entrants to remain in the space, and order the authorized entrants to evacuate the permit space immediately under any of the following conditions:

1. The attendant detects a prohibited condition.

2. The attendant detects the behavioral effects of hazard exposure in an authorized entrant.

3. The attendant detects a situation outside the space that could endanger the authorized entrants.

4. The attendant cannot effectively and safely perform all the duties.

(g) Summon rescue and other emergency services as soon as the attendant determines that authorized entrants may need assistance to escape from permit space hazards.

(10) Take the following actions when an unauthorized person approaches or enters a permit space while entry is under way:

(a) Warn the unauthorized person(s) that they must stay away from the permit space.

(b) Advise the unauthorized person(s) that they must exit immediately if they have entered the permit space.

(c) Inform the authorized entrant(s) and the entry supervisor if the unauthorized persons have entered the permit space.

(d) Perform non-entry rescues as specified by the activity's rescue procedure.

(e) Perform no duties that might interfere with the attendant's primary duty to monitor and protect the authorized entrant(s).

e. All individuals working with confined spaces will—

(1) Use protective equipment, respirators, safety line, and safety harness as required.

(2) Read posted confined space permits before entry into confined space.

(3) Not enter any permit-required confined space that does not have a confined space permit posted.

f. The following requirements will be followed in accordance with Part 1910.146, Title 29, Code of Federal Regulations:

(1) An entry supervisor will verify that appropriate entries have been made before entry into a permit-required confined space.

(2) Permits will be completed and posted at entry of confined space.

g. Personnel who are required to work in a permit-required confined space or in support of those working in a permit required confined space will have additional training in the following areas:

(1) Emergency entry and exit procedures.

(2) Use of respirators, as required.

(3) Current certification in basic first aid and cardiopulmonary resuscitation (CPR) skills for personnel performing rescue service.

(4) Lockout procedures are specific to the confined space in which they operate

(5) Safety equipment use.

(6) Rescue and training drills designed to maintain proficiency will be given initially to new employees, and thereafter at least annually or at lesser intervals as determined necessary by the supervisor.

(7) Permit system — what the permit says and what it means.

(8) Recommended work practices.

h. Training will be provided to each affected employee—

(1) Before the employee is first assigned duties under this regulation.

(2) Before there is a change in assigned duties.

(3) Whenever there is a change in permit space operations that present a hazard for which an employee has not previously been trained.

(4) Whenever the employer has reason to believe that there are either deviations from the permit space entry procedures or that there are inadequacies in the employee's knowledge or use of these procedures.

i. Testing and monitoring will be performed in the following manner:

(1) The tests performed will be conducted in the following order; oxygen content, flammability, and toxic materials. These tests will include upper explosion limit (UEL) and lower explosion limit (LEL) readings.

(2) Entry into a confined space for any type of hot work will be prohibited when tests indicate the concentration of flammable gases in the atmosphere is greater than 10 percent of the lower flammability limit (LFL).

(3) Equipment for continuous monitoring of gases and vapors will be explosion-proof and equipped with an audible alarm or danger signaling device that will alert employees when a hazardous condition develops.

(4) **The percentage of oxygen for entry into a confined space will be no less than 19.5 percent nor greater than 23.5 percent at 760 mmHG.**

j. Labeling and posting will be done in the following manner:

(1) All warning signs will be printed in both English and in the predominant language of the workers who do not read English.

(2) All entrances to any confined space will be posted; signs will include but not necessarily be limited to the following information: **DANGER CONFINED SPACE ENTRY BY PERMIT ONLY.**

(3) When a specific work practice is performed or specific safety equipment is necessary, an applicable statement will be added (for example, **RESPIRATOR REQUIRED FOR ENTRY, LIFELINE REQUIRED FOR ENTRY, HOT WORK PERMITTED).**

(4) Emergency procedures, including phone numbers of fire department and emergency medical services, will be posted conspicuously within the immediate area of the confined space, or by telephone from which help would be summoned.

k. Safety equipment and clothing should take in consideration the following, in accordance with the appropriate required regulations:

(1) Eye and face protection.

(2) Head protection.

(3) Foot protection.

(4) Body protection—gloves, aprons, and over-suits.

(5) Hearing protection.

(6) Respiratory protection—the use of respiratory protection will be determined by the supervisor.

(7) Hand protection.

(8) A safety belt with "D" rings for attaching a life line will be worn at all times.

l. The combination of a body harness with life line will be used when—

(1) An employee is required to enter to complete the gas analysis.

(2) An employee is working in an area where entry for the purpose of rescue would be contradicted.

(3) Any failure to ventilation would allow the build-up of toxic or explosive gases within the time necessary to evacuate the area.

(4) The atmosphere is immediately dangerous to life and health.

m. If the exit opening is less than 18 inches (45 centimeters) in diameter, a wrist type harness will be used.

n. **Work practices are as follows**:

(1) Purging and ventilating include—

(a) Blower controls will be a safe distance from the confined area, and audible alarm will be installed in all equipment to signal when there is a ventilation failure.

(b) Air flow measurements will be made before each work shift to ensure adequate ventilation is being maintained. Where continuous ventilation is not part of the operating procedure, the atmosphere will be tested until continuous acceptable levels of oxygen and contaminants are maintained for three tests at 5 minute intervals.

(c) Local exhaust will be provided when general ventilation is inadequate due to the restrictions in the confined space or when high concentrations of contaminants occur in the breathing zone of the worker.

(2) Isolation/lockout/tagging include—

(a) The isolation procedures will be specific for each type of confined space.

(b) Confined spaces will be completely isolated from all other systems by physical disconnection, double block, and/ or blanking off all lines.

(c) Where complete isolation is not possible (sewers and utility tunnels), specific written safety procedures approved and enforced by the supervisor will be used.

(d) Shut-off valves serving the confined space will be locked in the closed position and tagged for identification.

(e) Electrical isolation of the confined space will be accomplished by locking circuit breakers and or disconnects in the open (off) position with a key-type padlock.

(f) Mechanical isolation can be achieved by disconnecting linkages or removing drive belts or chains.

(3) Medical. Workers who enter a confined space will be provided physical examination by their own physicians at no expense to the employees. The physical examination will—

(a) Include a demonstration of the workers' ability to use negative and positive pressure respirators.

(b) Include a demonstration of the workers' ability to see and hear warnings (flashing lights, buzzers, or sirens).

(c) Place emphasis on several evaluations of the employees' ability to carry out their assigned duties and the detection of anything that may preclude confined space work.

o. Entry and rescue procedures are as follows:

(1) Entry procedures include—

(a) The internal atmosphere will be tested prior to an employee entering the space.

(b) Testing will be conducted with a calibrated direct-reading instrument.

(c) Confined space entry permit will be completed.

(d) Adequate ventilation or protective equipment will be implemented to ensure atmosphere is free of hazard to entrants.

(2) Rescue procedures, specifically designed for each entry, include—

(a) A trained person with a fully charged, positive pressure, self-contained breathing apparatus (SCBA) will be on standby during a confined space entry.

(b) The standby person will maintain unprotected life lines and communications to all workers in the confined space.

(c) Under no circumstances will the standby person enter the confined space until the first person is relieved and is assured that adequate assistance is present.

(d) Before workers enter the confined spaces, the fire department will be notified.

(3) First aid provisions include—

(a) There must be someone readily available in the area of the confined space who is currently trained in CPR and basic first aid procedures.

(b) Before workers enter the confined spaces, the fire department must be notified.

p. All government employees and contractors will provide a copy of all permit confined space permits to the Installation Safety Office prior to entry.

17-13 Welding and Compressed Gas Cylinders.

a. Welding. Welding and cutting of metals is accomplished by using one of two energy sources, gas or electricity. This chapter describes hazards associated with oxygen and fuel gas (oxyacetylene) welding or cutting.

(1) Compressed gas cylinders must always be secured in such a way that they cannot be knocked over. When cylinders are not in use, the protective valve cap will be in place.

(2) Only approved standard welding hoses may be used for welding operations; not ordinary pneumatic hoses or hose fittings. Damaged or otherwise unserviceable hoses will be removed from service immediately. Fabricated adapters will not be used to install incompatible pressure regulators to gas cylinders or welding hoses to pressure regulators.

(3) Connections must be tight. No white lead, grease, or pipe-fitting compound of any kind is to be used on connections. Flashback arrestors will be provided prior to welding operation.

(4) Hoses must be placed where they will not be trampled or run over, exposed to flying sparks, or hot objects. Hoses are never to be repaired with tape.

(5) The following rules for the prevention of fires in welding and cutting operations are to be followed:

(a) Do not perform cutting or welding work in or near rooms containing flammable vapors or liquids, or exposed loose combustible material.

(b) Be sure that cutting and welding equipment is not used where there is any possibility of flammable vapors being present, or where sparks or molten metal might pass through broken or open windows, open doorways, cracks, or holes in walls or floors.

(c) If the work can be moved, it is preferable to take it to a safe place for cutting and welding rather than to perform the work in a hazardous location.

(d) Where welding or cutting must be done in the vicinity of combustible material, make certain that sparks or hot slag do not reach combustible material and thus start a fire. If the work cannot be moved, move the exposed combustible material a safe distance away. Sweep floors clean and, if they are not of fire resistant material, wet them down before starting work. Wooden floors are preferably covered with metal or other suitable noncombustible material where sparks or hot metal is likely to fall. Station a guard near any opening to warn passerby who might otherwise be burned by sparks or slag. Us sheet metal guards or flame retardant curtains where needed.

(e) Make sure that the guards and curtains are adequate. Because hot slag may roll along the floor for considerable distances, it is important when using flame retardant blankets no opening exits where the curtain meets the floor.

(f) Whenever combustible material has been exposed to molten metal or hot slag from cutting operations, keep a watch at the place of work for at least a half-hour after completion to make sure that smoldering fires have not been started.

(6) Accidents during welding and cutting on containers are not frequent, but when they do occur, they are likely to be severe. To guard against injury by explosion or fire, it is essential that any flammable vapors, liquids, or solids are removed from a container before welding, or cutting operations are commenced. This may necessitate elaborate time consuming procedures, including testing with a combustible gas indicator.

(7) When engaged in welding or cutting work, the operator must be provided with adequate protection radiating heat and flaming particles of hot metal that may fly from the operation. Noncombustible clothing is available for body protection. Outer clothing must be free from grease, open pockets, cuffs, and such items into which sparks or hot metal might fly. Properly designed and selected colored lenses fitted in goggles or in a mask must be used for protection of the eyes.

b. Compressed Gas Cylinders.

(1) Acetylene:

(a) Acetylene must always be stored in an upright position in a well-ventilated area.

(b) Valves on cylinders must be closed securely to prevent evaporation of the highly flammable acetone solvent.

(c) Valve caps must be in place at all times unless in use.

(d) Acetylene cylinders shall not be stored within 20 feet of fuel gas cylinders unless separated by an approved fire wall.

(e) Signs to indicate "no smoking or open flames" must be posed in and arounds all areas where acetylene is stored.

(f) Only the minimum amount of any compressed gasses should be on hand to accomplish the mission.

(2) Oxygen:

(a) Oxygen is nonflammable but aggressively supports combustion. It must never be stored or used near flammable materials or gases. Oil or grease must never by allowed to come into contact with oxygen cylinders, valves, regulators, gauges, flashback arrestors or fittings.

(b) Leak test will be conducted prior to striking an arc. Leak tests will not be done with a flame. Leak test solution will be nonhazardous and be suitable for the applicable compressed gas.

(c) Never use a match, lighter, or welding arcs to light torches.

(3) General Storage and Handling:

(a) References to gases shall be by the proper name of the gas versus "air" or "gas".

(b) Safety devices in valves or cylinders shall not be disturbed.

(c) Compressed gas should not be used from cylinders without a reducing pressure regulator that was designed for that purpose.

(d) When installing a regulator, care must be exercised to assure that the threads on the regulator match those on the value; open the cylinder valve ¼ turns and closes immediately to remove any foreign particles in valve opening.

Warning: Do not "crack" cylinders in hazardous environments. Incompatibilities could lead to increased risk.

(e) Compressed gasses like oxygen will not be used to dust off clothing or other objects.

(f) Compressed air used for cleaning shall have a chip guard and pressure reduced at the discharge end to no more than 30psi (2 bar).

(g) Serviceable cylinders should never be emptied completely of their contents. When exhausting excess gas from cylinders, sufficient gas should be retained to assure a positive internal pressure. The valve caps will be placed back on the cylinder and the letters "MT" will be used to distinguish empty cylinders.

(h) Cylinders should never be dropped or allowed to be struck by any object.

(i) Cylinders will not be lifted by the valve or valve protection cap. Never lift by slings or electromagnets. Do not use as rollers.

Chapter 18
Hazard Communication Program.

18-1. General. Chemicals pose a wide range of health hazards (such as irritation, sensitization, and carcinogenicity) and physical hazards (such as flammability, corrosion, and reactivity). The Hazard Communication Program is designed to ensure that information about these hazards and associated protective measures are disseminated to workers and employers. Employers are required to train workers on the Globally Harmonized System (GHS) of Classification and Labeling of Chemicals, to include the new

labels elements and safety data sheets format to facilitate recognition and understanding.

18-2. Responsibilities.

a. **Commander, USAG will–**

(1) Ensure a Hazard Communication Program (HCP) is established and implemented to inform all Fort Knox garrison employees of the hazards associated with the chemicals in their work area.

(2) Ensure funding is made available to implement and maintain the HCP as outlined herein.

b. **ISO Safety Manager will–**

(1) Oversee the HCP.

(2) Monitor unit's Chemical Hazard Inventory Log during the Standard Army Safety and Occupational Health Inspection performed annually.

(3) Monitor effectiveness of employee's hazard communication training through an established inspection program.

c. **MEDCEN, Preventive Medicine Service provide**

(1) Assistance in determining employees to be trained through the Health Hazard Inventory Module (HHIM).

(2) Conducts or coordinates medical surveillance and health hazard training for garrison employees potentially exposed to occupational health hazards. Provide copies of HHIM surveys to the ISO upon request.

d. **DPW, Environmental Division, Environmental Management Branch will–**

(1) Provide assistance in obtaining SDS.

(2) Provide assistance in determining replacement HM items for workplaces.

e. **Director of Mission and Installation Contracting Command will–**

(1) Comply with requirements of Federal Acquisition Regulations (FAR) subpart 23.3.

(2) Ensure contractor's safety programs include the OSHA requirements of hazard communication standards.

f. **Directors and chiefs, directorates/staff offices will–**

(1) An individual is appointed to coordinate the hazard communication program within their organization and act as the central point of contact. Provide the name and phone number to the ISO.

(2) All elements of this program are complied with.

(3) This regulation, the organization's hazard chemical inventory, and applicable (MSDS)/SDSs are readily available for personnel working with hazardous chemical.

g. **Supervisors will–**

(1) Ensure employee hazard communication training is conducted and documented in the civilian employee's record.

(2) Maintain an inventory of all hazardous chemicals used in the workplace.

(3) Maintain SDS on all hazardous chemicals used in the workplace, and make readily available to employees.

(4) Train employees on specific hazards associated with the chemicals used in their workplace and protective measures to prevent injury/exposure to hazardous chemicals.

(5) Apprise employees performing non-routine tasks of any hazardous chemicals they may use or come in contact with and protective measures to prevent exposure.

(6) Prepare a SOP covering the use of chemical compounds, safe handling procedures, measures, protective clothing, and equipment employees must use.

18-3. Hazard Communication Procedures
See appendix C.

Chapter 19
Contracting Safety

19-1 Introduction. This chapter prescribes DA policy for integrating safety into the contracting. DA Pam 385–10 contains technical requirements and processes for contract safety management, oversight, and control processes.

19-2 Policy.

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

b. Army SOH professionals will be trained in contracting principles and procedures and contract safety requirements and processes (DA Pam 385–10).

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

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

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

f. In addition to clauses as required by FAR, DFARS, and Engineer FAR supplement, activities will develop performance work statements and contract instructions and conditions that outline contractor safety requirements and responsibilities based on a risk assessment of the work to be performed and activity and/or command-unique requirements. CORs, requiring activity, or the Defense Contract Management Agency, in consultation with local SOH subject matter experts, will develop additional and necessary clauses to mitigate risk.

Note: The only means for imposing SOH requirements on a foreign contractor or subcontractor, or for imposing Army SOH requirements on any contractor, is by incorporating the requirement as a contractual requirement (for example, a contract clause, special clause, statement of work, guide specification, or contract modification).

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

h. Contracting officers will consult with SOH subject matter experts to ensure that clauses for safety are included in contract SOH compliance.

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

(1) Injury or occupational illness to on-duty contractors.

(2) Damage to Government furnished material, Government furnished property, or GFE provided to a contractor.

(3) Contractor accidents involving Army property and personnel.

j. The COR will inform the local SOH office of instances where the contractor has been notified to take immediate action to correct serious or imminent danger conditions.

19-3. Army oversight and inspections of contractor operations.

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

(1) Where the Army has statutory authority for oversight, such as the manufacture of ammunition.

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

b. Occupational Safety and Health Administration inspections. Army contractors operating from Army or privately owned facilities, located on or off Army installations, are "employers" as defined in 29 USC 652 and those that follow and are subject to enforcement authority by Federal and State safety and health officials as stated in the following:

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

(2) 29 USC Chapter 15 does not authorize the Secretary of Labor to assert authority over working conditions for which another Federal agency or any State agency acting under 42 USC exercises statutory authority to prescribe or enforce standards or regulations affecting SOH.

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

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

(5) Full information regarding citations issued to Army contractors for violations of Federal or State OSHA standards involving Army-furnished equipment, facilities, or

other property will be referred to all appropriate personnel, to include the COR and contracting officer, for appropriate action

c. Inspection of contract activities.

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

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

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

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

Chapter 20
Bloodborne Pathogens.

20-1 General. For guidance, requirements, and implementation
The requirements in appendix E shall be implemented.

Chapter 21
Ionizing and Non-Ionizing Radiation Protection.

21-1. General. This installation is committed to the operating philosophy of maintaining occupational radiation exposure as low as is reasonably achievable (ALARA) and maintaining effective control of radioactive items and non-ionizing radiation producing devices, to ensure that exposure to radiation and the possible release of airborne radioactive contaminants is ALARA. The IRSO will provide overall coordination, advice, and assistance for radiological safety, except for MEDDAC, which will be managed by the assigned medical Radiation Protection Officer (RPO) per paragraph 21-2c, this regulation.

21-2. Applicability. This regulation applies to any activity or person on Fort Knox who possesses or wishes to bring ionizing or non-ionizing radiation sources onto the installation.

21-3. Responsibilities.

a. The Garrison Commander shall accomplish the following:

(1) Ensure there are adequate resources to support the Radiation Protection Program to include, but not limited to, the presence of an IRSO or an alternate RSO (ARSO) for duty during all normal duty hours.

(2) Ensure that measures are established to control health and safety hazards from ionizing and non-ionizing radiation sources, devices, commodities, and radioactive materials.

(3) Ensure that occupational exposures are maintained within regulatory limits and comply with the ALARA principle.

(4) Designate in writing an Installation Radiation Safety Officer (IRSO), Laser Safety Officer (LSO) and Alternate Radiation Safety Officer (ARSO).

(5) Establishes, as needed, an Installation Radiation Control Committee (IRCC).

b. IRSO/LSO. The IRSO/LSO will be designated in writing and assigned to the Installation Safety Office and will accomplish the following:

(1) Ensure personnel have been instructed in safe working practices; emergency procedures; harmful biological effects of ionizing/non-ionizing radiation; reports of defects and noncompliance; and other topics as required by Title 10, CFR, Part 19, and appropriate Army regulations.

(2) Ensure Unit Radiation Safety Officers (URSO) have completed approved online radiation safety training.

(3) Audit/inspect subordinate command/unit radiation programs as necessary. Report results of audits/inspection to the command of the unit being audited/inspected.

(4) Administer the Installation Army Radiation Permit (ARP) Program.

(5) Serve as the Fort Knox POC with other Federal, DOD, DA and agencies for ionizing radiation issues.

(6) Evaluate all operations involving the use or storage of radioactive materials to determine the need for restricted areas, dosimetry, or other control measures. This evaluation will include, as needed, physical measurement.

(7) Review all operations involving the use or storage of radiation sources to ensure that dose rates to personnel comply with the ALARA principle.

(8) The IRSO/LSO will assure that all facilities in which non-ionizing radiological sources will be used, meet applicable regulatory requirements and standards.

(9) Per DA Pam 385-40, submit Radiation Incident/Accident reports as necessary.

(10) Ensure notices to workers, warning signs, instructions, and other notices required by Title 10, CFR, and local SOPs are posted.

(11) Determine that all shipping arrangements for radioactive materials are per DOT regulations in Title 49, CFR, and Title 10, CFR, Part 71. This includes, but is not limited to; packaging mode of transport, destination, location of transport vehicle, information supplied on shipping documents, labeling of packages for interim storage in warehouses, and placarding of vehicles.

(12) Monitor each outgoing shipment and provide information and/or readings for shipping papers as required by Title 10, CFR, Part 71, and Title 49, CFR, Part 173, or appropriate tariffs.

(13) Suspend any operation that represents a serious radiation hazard or violates applicable regulations.

(14) Monitor and advise URSO's.

(15) Provide for storage space and consolidate radioactive waste.

(16) Properly store, retain, and preserve radiation safety program records, including radiation and contamination survey reports, to ensure availability during decontamination and decommissioning.

c. Commanders (except MEDDAC), directors, and activity chiefs possessing ionizing/non-ionizing radiation sources will achieve the following:

(1) Designate a Unit Radiation Safety Officer (URSO) in writing.

(2) Ensure copies of DA Pam 385-24 and Fort Knox Reg 385-10, Chapter 21 are maintained.

(3) Ensure items containing radioactive material are used solely as intended by pertinent technical bulletins, technical manuals, operator manuals, and all other written guidance to ensure personnel exposure is kept as low as reasonably achievable.

(4) Establish procedures and provide a unit SOP to delineate responsibilities for the safe storage, use, identification, control, and disposal of radiation sources and material under their command/control.

(5) Maintain inventories of active and disposable radioactive materials, sources, commodities and non-ionizing radiation-producing devices.

(6) Ensure storage areas comply with DA Pam 385-24, The Army Radiation Safety Program, and applicable technical publications.

(7) Submit inventories of ionizing and non-ionizing radiation sources to the IRSO not later than 31 January yearly.

(8) Ensure that URSO has the training, time, and resources necessary to perform their duties.

d. Commander, MEDDAC, will adhere to the following:

(1) Maintain policies and procedures necessary to ensure that use of radiation and radioactive material is per Federal and Army regulations and any licenses or authorizations specific to the Fort Knox MEDDAC.

(2) When requested, provide medical support (i.e., bioassay) advice and technical consultation on radiation issues.

(3) Maintain an inventory of radioactive materials and devices and provide copies to the IRSO not later than 31 January each year.

(4) Provide copies of the MEDDAC Radiation Control Committee meeting minutes to the IRSO.

e. The Director, Public Works (DPW) will notify the IRSO when a building or area that currently or formerly contained radioactive commodities is scheduled for demolition or will no longer contain radioactive commodities. This is to provide appropriate notice so that the IRSO/URSO can take decommissioning actions as necessary.

f. The Director, LRC will accomplish the following:

(1) Obtain IRSO guidance and approval for all off-post shipments of radioactive material, commodities, and devices.

(2) Ensure that end items and components identified in TB 43-0116, Identification of Radioactive Items in the Army and TB 43-0216, Safety and Hazard Warnings for Operation and Maintenance of TACOM Equipment, as containing radioactive material are screened and proper disposal actions taken.

g. Director, Emergency Services will comply with the below:

(1) Ensure technical advice and consultation on proper fire control techniques is provided to radioactive material storage providers by the fire department. The IRSO will provide information regarding the radiation hazards in particular areas and what special precautions may be necessary in regards to the material stored there.

(2) In a fire emergency, the major hazard is airborne radioactive contamination. All personnel must evacuate the area and remain upwind of the fire. All ventilation equipment must be turned off and all doors must be closed, if possible.

(3) Fires should only be fought by firefighters standing upwind. Self-contained breathing apparatus will be worn.

(4) Once the fire has been extinguished, the IRSO will monitor personnel, firefighting equipment, and the affected area for contamination. Wipes will be taken and the wipes/area will be monitored.

h. Defense Reutilization and Marketing Office (DRMO) will notify the IRSO if material or equipment, which is suspected of containing or contains radioactive material, is .

i. Director, Mission and Installation Contracting Command (MICC) will accomplish the following:

(1) Identify contracts where radiation or radiation sources must be used in order to allow sufficient time before contractors begin work (30 days) to process the DA Radiation Permit (DARP)/DA Radiation Authorization (DARA). A contractor's NRC license is not always sufficient to use a controlled sources on Fort Knox.

(2) Ensure that contractors have completed and forwarded DA Form 3337, Application for DA Radiation Authorization (DARA) or Permit (DARP), to the IRSO 45 days before transporting radioactive material onto the installation.

(3) Ensure that license holders and license applicants (i.e., contractors or subcontractors) do not impose conditions in settlement agreements or in other agreements affecting employment that would prohibit, restrict, or discourage an employee from providing information on potential safety violations or hazards.

(4) Ensure that transporters of radioactive materials on or off Fort Knox are knowledgeable concerning the accident reporting requirements of DA Pam 385-40, Army Accident Investigation and Reporting, and other Federal regulations.

j. Commanders/Directors disposing/transferring radioactive waste will adhere to the below procedures:

(1) Notify the IRSO so that pickup can be arranged.

(2) Prepare all necessary paperwork for the transfer of items to IRSO.

(3) Establish handling and control procedures to preclude the unauthorized removal or salvage of radioactive material.

k. Unit Radiation Protection Officer (URPO). The URSO will accomplish the following:

(1) Formulate and implement the Radiation Protection Program in their unit to ensure personnel safety and regulatory compliance.

(2) Successfully complete the TACOM-RI Radiation Safety Course. Course can be located at TACOM LCMC Radiation Safety Course. Site. You will have to utilize the ALMS site to register for the course.

(3) Review local rules and procedures for transportation, disposition, procurement, storage and use of radioactive material and ensure compliance with the applicable regulations and directives.

(4) Provide the commander/director and radiation workers with advice and assistance on all matters pertaining to radiation protection.

(5) Provide training and instruction to users and visitors in the safe use of protective equipment, radioactive material, radiation-producing devices, etc. All training will be documented with the trainee's signature and should be conducted annually as a minimum.

(6) Review radiological operations to determine compliance with regulations and SOPs.

(7) Ensure proper personnel monitoring devices are used.

(8) Per DA Pam 385-25, maintain dosimetry records on file.

(9) Assist in the investigation of radiation accidents, incidents, and overexposure.

(10) Attend the annual IRCC meeting.

l. Supervisors of Radioactive Material. Supervisors of radioactive material or radiation-producing devices will comply with the below items:

(1) Maintain an inventory of radiation sources for which they are responsible. Copies will be forwarded to the URSO/ARSO.

(2) Post appropriate warning signs.

(3) Ensure personnel receive annual training on safe working practices, emergency procedures, and harmful effects of radiation exposure, and the training is documented.

(4) Comply with the ALARA principle by minimizing radioactive exposure and contamination.

(5) Secure radioactive sources from unauthorized use.

(6) Before the start of any operation involving radioactive material or possible exposure to radiation, prepare an SOP for review by the IRSO. The SOP will contain as a minimum:

(a) Responsibilities.

(b) Maximum levels of radiation (exposure and activity of source).

(c) Storage.

(d) Dosimetry.

(e) Fire protection.

(f) Security.

(g) Decontamination procedures.

(h) Emergency procedures.

(7) Enforce SOPs, rules, and special precautions.

(8) Report any radiological accident, unsafe incident, suspected overexposure or contamination, or any incident involving lost or found radiation-containing material to the IRSO/URSO.

21-4. Control of Ionizing Radiation Sources.

a.No radioactive material may be brought on the installation unless it is:

(1) Incorporated in a standard issue item such as is defined in TB 43-0116, Identification of Radioactive Items in the Army Supply System.

(2) Covered by a specific or general license issued by the NRC to an activity on the installation.

(3) Authorized by a DARA for Army-owned quantities exempt from NRC licensing.

(4) Included in a DA radiation permit granted for the use, storage, possession, or disposal of any source by non-Army agencies.

(5) Authorized by the Garrison Commander (temporary use or storage only) for a maximum of 15 calendar days.

b. Radiation-producing devices (i.e., industrial x-ray machines) must be reported to the IRSO within 5 days of arrival on the installation.

c. Inventories of all ionizing sources of the owning activities will be prepared by the URSO and forwarded to the IRSO by 31 January of each year.

d. Areas where ionizing radiation sources are stored or used must be properly secured and marked. Areas must be surveyed with a radiation meter, which is marked ACTIVE and is properly calibrated to determine required precautions and applicable warning signs. The IRSO will conduct and document results of surveys.

e. If warning signs are required, other documents may be required to provide information to workers, visitors, emergency rescue personnel, investigative authorities, etc. This includes but not limited to:

(1) "No eating, drinking, smoking, or applying of cosmetics is permitted in this area"

(2) CAUTION – RADIOACTIVE MATERIAL.

(3) Notice to employees: NRC Form 3.

(4) NRC notice of violations – if any.

(5) Energy Reorganization Act of 974: Section 206.

(6) Applicable licenses*

(7) Emergency procedures and SOPs*

(8) Title 10, CFR, Parts 19, 20, and 21*

Note: If posting these documents is not practical, a notice may be posted with NRC Form 3 that describes the documents and states where they may be examined.

f. Standard issue items (see TB 43-0116) containing radioactive material must be removed immediately from service when found to be broken, leaking, or unserviceable. Contact the IRSO or AIRSO for removal action. Unauthorized personnel must not take apart or attempt to repair such items. Standard issue items must be used only for their intended purpose and only under proper supervision.

g. Any proposed transfer of radioactive material, sources, devices, or commodities outside the Army must be approved by the IRSO/ARSO.

h. For technical or regulatory advice and assistance, the IRSO or ARSO may be contacted at the ISO.

21-5. Control of Non-Ionizing Radiation Sources.

a. Laser hazard classification scheme is identified by the laser output parameters and is specified in American National Standards Institute (ANSI) Z136.1. The hazards associated with each classification are:

(1) Class 1 and 1M laser devices are not capable of emitting hazardous laser radiation under any operating or viewing conditions. As such, they are exempt from any control measures.

(2) Class 2 and 2M laser devices are continuous wave, visible laser devices. Momentary exposure occurring in an unintentional viewing situation is not considered hazardous due to the aversion response to bright light sources.

(3) Class 3 laser devices are subdivided into two classes (3R and 3B). Class 3R lasers are normally not hazardous unless viewed with magnifying optics from within the beam. Class 3B lasers are potentially hazardous under diffuse reduction.

(4) Class 4 laser devices are a hazard to the eye and the skin from the direct beam, a specular reflection, and sometimes from a diffuse reflection. A Class 4 can also be a fire hazard.

b. Standards for exposure to laser radiation are delineated in ANSI Z136.1. Distance to which the exposure standards are exceeded, and optical density requirements for last eye protection are specified in the technical manual for the device.

c. Personal protection equipment:

(1) Personnel will be furnished suitable laser safety goggles per MIL-HDBK-828.

(2) Needless skin exposure will be avoided for Class 3b and 4 lasers. When the hands or other parts of the body must be exposed to potentially hazardous levels, protective coverings, gloves, or shields will be used.

d. Indoor laser range safety:

(1) Windows in a Class 4 laser facility will be covered to prevent passage of a hazardous beam into uncontrolled areas and to reduce reflective surfaces.

(2) Areas will be free from polished and reflective surfaces (unless the beams are totally enclosed). Walls and ceilings will be finished with diffuse, non-glass material.

(3) Safety interlocks will be provided at the entrances of facilities to deny access to unauthorized or transient personnel while the laser is energized and the laser is capable of firing. A warning light with explanatory sign will be conspicuously placed on the walls of the closed room to alert personnel that the laser is in operations.

e. RF hazard warning signs are required at all access points in which levels exceed the controlled environment Permissible Exposure Limits (PELs). Instructional or warning statements should be inserted on the signs. Commanders may waive the RF hazard signs when all personnel are briefed of the possible RF hazards and other administrative means are employed to reduce the inadvertent exposure to RF hazards in excess of PELs.

f. Outdoor laser range safety:

(1) All Class 3b and 4 laser beams shall be terminated on outdoor laser ranges using natural and/or artificial backstops, unless the beam characteristics render the beam harmless when viewed through magnifying optics at the range boundary. The ground can be effectively used as a backstop when the laser is operated from an elevated position. No Class 3b or 4 laser beams will be directed upward into airspace. These precautions will eliminate a need for concern for individuals off the range, even if they are using magnifying optics. To ensure Class 3b and 4 laser beams strike the chosen backstop, limiting apertures should be used to limit the beam to the solid angle captured by the backstop.

(2) All specular reflecting objects will be removed from the beam and target areas or covered to eliminate the possibility of any specular reflections. Glossy foliage, raindrops, and other natural objects <u>are not</u> considered specular objects. Calm, smooth water and clean ice <u>are</u> considered specular surfaces.

(3) The use of optical viewing to observe the target will not be permitted unless all specular surfaces have been removed.

(4) Radio communications with personnel downrange in the target area will be provided during laser operation to ensure protective eyewear is being worn during laser operations by down range personnel. Any break in communication or entrance of unprotected personnel into the laser surface danger zone will automatically terminate laser operations. At times when communication is disturbed, it will be assumed the laser is on.

(5) Range warning lights or range flags will be illuminated or flown during laser operation to notify personnel that live firing is in progress.

(6) The laser exit port shall be covered with opaque material at times when it is not being used to prevent accidental firing of the device.

(7) Lasers on aircraft shall be secured and unable to fire when the aircraft is in some location other than an authorized firing site. Pilots will make a dry run to the mission to become acquainted with the prescribed course and test area.

(8) Lasing will be terminated promptly if positive control of the laser beam is lost.

(9) Operators and crews will laser only at approved targets.

f. Laser pointers used in classrooms or for presentations:

(1) Users of the laser pointer must never aim the pointer into the audience. These devices are not toys and should not be used by children.

(2) Despite their size and the fact that most are powered by small, commonly available batteries, these pointing devices can cause eye damage as a consequence of improper operation. Laser pointers with a "caution" warning label require few safety controls and should be purchased rather than one with a "danger" label.

g. Laser safety control measures have been established for use on Army ranges address laser range safety in outdoor operations.

h. Laser safety responsibilities. See paragraph 21-3b.

i. Arc welding and cutting operations:

(1) Welding, cutting, and allied operations may produce radiant energy (radiation) harmful to the health. Radiant energy may be ionizing (such as x-rays) or non-ionizing (such as ultraviolet, visible light or infrared). Radiation can produce a variety of effects such as serious and painful ultraviolent induced eye and skin irritation or possible blindness.

(2) Protection from possible harmful effects caused by non-ionizing radiant energy from welding include the following:

(a) Do not look at welding arcs except through welding filter plates which meet the requirements of ANSI Standards 287.1-1979.

(b) Protect exposed skin with adequate gloves and clothing as specified in ANSI Z49.1.

(c) Beware of reflections from welding arcs, and protect all persons from intense reflections.

(d) Avoid exposing passersby to welding operations by use of screens, curtains, or adequate distance from aisles, walkways, etc.

(e) Safety glasses with UV protective side shields have been shown to provide beneficial protection from ultraviolet radiation produced by welding arc.

j. Vision/Ocular Assessments for personnel in laser environments.

(1) Pre-placement screenings are performed on all laser workers using Class 3b and 4 lasers and all incidental laser personnel working with Class 3b and 4 lasers. The purpose of this examination is to determine the baseline visual acuity and ocular health status of the employee.

(2) Termination vision screenings will be performed on all laser workers and on incidental laser personnel who work with Class 3b and 4 lasers when they terminate their employment. Individuals having abnormal findings will be referred for a diagnostic examination.

21-6 Radiation Procedures.

a. If a radioactive item is lost, immediately notify the chain of command and the IRSO. The IRSO must report the loss to the license holder who telephonically notifies the Nuclear Regulatory Commission (NRC). Subsequently, the license holder will request the unit to submit a form report of findings and corrective actions within 30 days through the IRSO. The report will be forwarded by the license holder to NRC.

b. If a radioactive items is damaged or broken, double bag equipment using clear plastic bag to minimize the need to reopen bags and label "Broken or damaged (nomenclature) – DO NOT OPEN" and place in a cardboard box. Notify the chain of command and IRSO. In the case of broken or damaged tritium vials, IRSO will conduct wipe tests to determine whether equipment can be repaired or will go to radiation waste locker. Where tritium vials are not damaged or broken and still illuminating, equipment may be forwarded to direct support for repair.

c. Army Chemical Agent Detectors (ACADAs), Improved Chemical Agent Monitors (ICAMs), and Chemical Agent Monitors (CAMs) do not require annual leak tests.

d. If a Notice of Violation (NOV) is issued against a license, it must be posed until the corrective action has been taken.

e. Instructions concerning prenatal radiation exposure.

(1) Per NRC Regulatory Guide 8.13, June 1999, Revision 3: Dose to an Embryo/Fetus require licensees to ensure that the does to an embryo/fetus during the entire pregnancy, due to occupational exposure of a declared pregnant woman does not exceed 0.5 rem.

(2) A declared pregnant woman is defined as a woman who has voluntarily informed her employer, in writing, of her pregnancy and the estimated date of conception.

(3) The choice whether to declare pregnancy is completely voluntary. If radiation workers choose to declare their pregnancy, they must do so in writing and a lower radiation dose limit will apply to the embryo/fetus. (Appendix Q). If a woman chooses not to declare their pregnancy, the pregnant worker and the embryo/fetus will continue to be subject to the same radiation dose limits that apply to other occupation workers. Pregnant women shall be offered reassignment, for the duration of pregnancy, from specific tasks that are likely to result in a total dose to the unborn child of 0.5rem, or more.

21-7. Transportation of Radioactive Materials.

a. Off-post shipments must comply with regulations established by the DOT, the NRC, affected states, and Army regulations. Packages will be monitored/wipe tested by the IRSO/ARSO to ensure appropriate information is placed on the shipping documents.

b. Radioactive materials may be temporarily stored in connection with movement (transportation using standard procedures) as long as the following guidelines are followed.

(1) They will not be stored in the same warehouse section with explosives, flammable materials, photographic film, or unsealed food products.

(2) Packages containing radiation will be placed in an approved/controlled area of the warehouse.

(3) The IRSO/ARSO will be made aware of the location of any package with Radioactive White I, Yellow II, or Yellow III labels.

c. Unsealed or leaking "sealed sources" will be moved only by the IRSO or ARSO.

d. Drivers of vehicles carrying radioactive materials will adhere to the procedures governing transportation of hazardous materials.

e. Radioactive items may not be transported in privately owned vehicles.

21-8. Disposal of Radioactive Waste.

a. When material has been determined (by radiac meter, AMDEF, or published TB) to be radioactive waste, the IRSO/ARSO will be notified. The following information must be provided:

(1) NSN.

(2) Number of items.

(3) Nomenclature.

(4) Other identifying information.

(5) Whether or not the device is leaking or suspected of leaking.

(6) Serial numbers (if applicable).

(7) Radioactive isotope

b. Arrangements must be made by the owning activity to drop the items from accountability so that disposal actions can be accomplished.

c. The IPRO or AIRSO will provide instructions to the owning activity. Leaking sources will be picked up and moved only by the IRSO or AIRSO.

d. When sufficient material has been accumulated to make disposal desirable, the IRSO will request disposal instructions from the applicable license holder.

21-9. Emergencies. When any abnormal or emergency situation involving radioactive materials develops at Fort Knox, the IRSO or AIRSO must be notified immediately. The first few minutes after the discovery of a radiological accident can be the most critical if there are injuries involved. During this period, personnel present at the site must take immediate action (based on an assessment of the degree and nature of the hazard) to ensure appropriate lifesaving, control, and containment procedures are initiated.

a. Actions taken should follow roughly in the order given:

(1) Administer lifesaving first aid.

(2) Remove injured personnel from radiation area.

(3) Notify the MEDDAC as soon as possible that personnel have been contaminated.

(4) Keep all unnecessary personnel out of the area.

(5) Administer first aid for lesser injuries.

(6) In case of fire, clear the downwind area as far as feasible, at least to a distance free from direct smoke inhalation.

(7) Decontaminate injured personnel as soon as possible.

(8) Do not allow any personnel, equipment etc., thought to be contaminated out of the area.

(9) Identify and record names of affected personnel.

(10) Any action which increases the chance of radioactive materials entering the body must be prevented. Open wounds must be cleaned (decontaminated) thoroughly. Smoking, eating, and drinking will not be permitted in any area thought to be contaminated.

(11) Every attempt should be made to decontaminate individuals before they are transported to receive medical treatment.

b. The following paragraphs provide some guidance for accomplishment of the actions above. Accurate assessments and good judgment, however, must be exercised.

c. Normal first aid procedures may be used with the following exceptions, modifications, and considerations:

(1) Only those personnel with severe (i.e., life or limb endangering injuries) should be treated before removal from the immediate site of the accident. Once lifesaving procedures have been accomplished, the dangers of moving personnel from the site must be weighed against the danger of continuing radiation exposure from remaining at the site. Decontamination of injured personnel should begin as soon as possible with emphasis on removal of gross amounts of radioactive contaminants, especially from the vicinity of wounds.

(2) Personnel with minor injuries should be removed from the immediate site of the accident and decontaminated before treatment is given.

d. The priority of radiation exposure control is second only to the preservation and safety of human life and limb. Therefore, after emergency first aid has been given, all efforts will be directed towards the reduction of exposure of personnel to radiation. Thus, it should be remembered that any unnecessary radiation exposure is considered excessive. The following guidance is provided:

(1) Radiation exposure is reduced by minimizing exposure time by increasing the distance between the source of radiation and personnel and by shielding (dense materials, (e.g., lead, cement, sand, plastics) between the radioactive source and personnel.

(2) All but the most severely injured personnel will be removed from the site of an accident at the earliest possible time. First aid for minor injuries should be delayed until the patient is decontaminated, (if injury permits).

e. Medical personnel at the hospital/clinic and ambulance personnel must be informed ASAP of the possibility of contamination to injured personnel. Information given should be as detailed and complete as possible.

f. Prompt decontamination (removal of contaminants) can be accomplished in various ways. Methods selected will depend on the circumstances encountered at the site, (i.e., location and concentration of contaminant on personnel, number involved, etc.).

g. Actions taken to decontaminate personnel can include the below:

(1) Removal of clothing (most contaminants are usually on clothing and shoes).

(2) Thorough washing with nonabrasive soap and lukewarm water. Avoid the use of organic solvents; they increase the probability of radioactive materials penetrating through the pores of the skin.

(3) Localized contaminated areas should be marked off and cleansed with swabs to minimize the danger of spreading contaminants by general washing.

(4) Showering under tepid water using a mild soap solution in the event contamination is not localized or several individuals have been contaminated.

h. All materials used in the decontamination of personnel will be treated, handled, and disposed of as low-level radioactive waste under the supervision of the IRSO/AIRSO/MEDDAC RPO/DES.

i. If there has been a fire or airborne release of radioactive contaminants suspected, nose wipes will be taken from all personnel in the immediate vicinity of the accident before they are released from the site. Wipes will be protected from cross contamination and will be identified, as a minimum, with the name, SSN, unit, and telephone number of the individual.

j. In any case, the name, SSN, address, unit, and telephone number (as applicable) will be obtained from each individual involved.

k. Proper control and containment of radioactive contamination assists in minimizing personnel exposure and in the eventual task of area decontamination.

(1) Take all possible steps to isolate and close off the accident site to include sealing all windows and doorways, shutting down ventilation systems, and limiting access to authorized personnel only (i.e., emergency response team members, fire fighters, military police, medical personnel).

(2) If fire is involved, extinguish (if possible) as quickly as possible. Take precautions to prevent water run-off from leaving the area.

(3) Contain and isolate all contaminated or possibly contaminated personnel and equipment until decontamination and monitoring operations are complete.

(4) If it is essential (loss of life or limb) to remove any individual or piece of equipment from the scene before decontamination is complete, take all prudent precautions to prevent the cross-contamination of otherwise uncontaminated personnel, areas, equipment, and vehicles.

(5) Suspect that everyone and everything involved with the accident is contaminated (worst case scenario) until it is shown by monitoring to be otherwise.

l. The IRSO will advise the DES of areas used to store radioactive material and the particular hazards associated with each area.

(1) Per published technical data, radioactive materials will be stored strictly to ensure prevention of any significant external dose under any conditions. Fire fighters should wear self-contained breathing apparatus and protective clothing while fighting fires that possibly involve radioactive materials.

(2) The IPRO will be informed of any fire involving an area where radioactive material is stored.

21-10. Procedures for Control of Storage Areas. Radioactive storage areas must be approved by the IRSO/AIRSO.

21-11. Report of Safety Hazards.

a. Any individual discovering or having knowledge of an ionizing radiation safety hazard must report such knowledge to the IRSO or AIRSO in an expeditious and timely manner. Possible safety hazards include, but are not limited to:

(1) Release of unauthorized amounts of radioactivity to an unrestricted area (the environment). Action such as incinerating, crushing, throwing in dumpsters, etc., of radioactive material (with some minor exceptions) is strictly prohibited by law.

(2) Unauthorized disassembly of a radioactive component.
(3) Leaking "sealed" source.
(4) Overexposure or suspected overexposure of personnel.
(5) Loss of control of radioactive items.
(6) Dose rates in **unrestricted** areas in excess of 0.5 millirem per hour.
(7) Failure to use individually-controlled radioactive items strictly per applicable technical publications.

b. The IRSO will evaluate the information, investigate if necessary, and determine if the accident/incident should be reported as a "Substantial Safety Hazard" in accordance with Title 10, CFR, Part 21.

21-12. Installation Radiation Control Committee (IRCC). The Garrison Commander may at his/her discretion, form an IRCC to oversee the installation radiation safety program. The following guidance applies to the IRCC, if established.

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

b. Membership includes the Garrison Commander as chair (or a designee who is a senior member of the Commander's staff), the IRSO (recorder), and all organization RSOs, including tenant activities.

c. IRCC, if established, will meet at least once each calendar year or at the call of the chair.

Appendix A
Publications, Forms and Abbreviations/Terms

Section I
Publications

AR 11-34, The Army Respiratory Protection Program
AR 25-400-2, The Army Records Information Management System (ARMIS)
AR 190-11, Physical Security of Arms, Ammunition, and Explosives
AR 385-10, The Army Safety Program
AR 385-63, Range Safety
AR 385-64, Ammunition and Explosive Safety Standards
AR 600-55, The Army Driver and Training Program
AR 690-700, Personnel Relations and Services (General)
AR 700-13, Worldwide Ammunition Logistics/Explosives Safety Review and Technical Assistance Program
AR 700-141, Hazard Material Information System
AR 710-2, Supply Policy Below the National Level
DA Pam 40-501, Army Hearing Program
DA Pam 385-10, The Army Safety Program
DA Pam 385-11, Army Guidelines for Safety Color Codes, Signs, Tags, and Markings
DA Pam 385-24, The Army Radiation Safety Program
DA Pam 385-25, Occupational Dosimetry and Dose Recording for Exposure to Ionizing Radiation
DA Pam 385-26, The Army Electrical Safety Program
DA Pam 385-30, Risk Management
DA Pam 385-40, Army Accident Investigations and Reporting
DA Pam 385-63, Range Safety
DA Pam 385-64, Ammunition and Explosive Safety standards
DA Pam 385-65, Explosive and Chemical Site Plan Development and Submission
IMCOM Reg 5-13, Installation Ammunition Support
IMCOM Reg 385-10, Safety Program
FK Reg 385-2, Procedures for Cold Weather Operations
FK Reg 385-22, Range Safety
AMC-R 350-4, Training and Certification Program for Personnel Working in Ammunition Operations
AMC-R 385-10, US Army Materiel Command (AMC) Safety Program
AMC-R 700-107, Preparation of Standing Operating Procedures for Ammunition Operations (SOP)
DOD 1010.15, Smoke-Free DOD Facilities
DOD 4500.9-R, General Cargo Movement
DOD 6050.5, DOD Hazard Communication (HAZCOM) Program
DOD 6055.1, Safety and Occupational Health Program
DOD 6055-9, DOD Ammunition and Explosive Safety Standards
10 CFR, Department of Energy

29 CFR, Department of Labor
49 CFR 172 and 173, Hazardous Materials
23.3 FAR Hazardous Material Identification and Material Safety Data
Executive Order 12196 Occupational safety and health programs for Federal Employees
The Williams-Steiger Occupational Safety and Health Act of 1970 (OSH Act)

Section II
Forms

DA Form 285, Technical Report of US Army Ground Accident
DA Form 285-AB, US Army Abbreviated Ground Accident Investigation Report (AGAR)
DA Form 348, Equipment Operators Qualification Record
DA Form 581, Request for Issue and Turn-in of Ammunition
DA Form 2028, Recommended Changes to Publications and Blank Forms
DA Form 3337, Application for DA Radiation Authorization or Permit
DA Form 3953, Purchase Request and Commitment
DA Form 4283, Facilities Engineering Work Requests
DA Form 4604, Security Construction Statement
DA Form 4753, Notice of Unsafe or Unhealthful Working Conditions
DA Form 4755, Employee Report of Alleged Unsafe or Unhealthful Working Conditions
DA Form 7281, Command Oriented Arms, Ammunition and Explosive Security Screening and Evaluation Record
DD Form 1348-6, Single Line Item Requisition System Document, DOD (Manual-Long Form)
Occupational Safety and Health Protection for Employees of the USAG and Fort Knox,
Department Of Defense Safety and Occupational Health Protection Program
DD Form 2977, Deliberate Risk Assessment Worksheet
Optional Form 346, U.S. Government Motor Vehicle Operators' Identification Card
FK Form 3149-R-E, Respiratory Protection Request
FK Poster 700-22-1, Fort Knox Ammunition Amnesty Program
ATZK-S Poster 385-11-1, Radioactive Instructions
NRC 3, Notice to Employees
Energy Reorganization Act of 2974, Section 206

Appendix B
Bleacher Inspection Criteria

BLEACHER INSPECTION CHECKLIST
For use of this form, see Fort Knox Reg 385-10.

UNIT:	DATE:
HHC 126th ID	10 Oct 2016
BLEACHER ID #:	**LOCATION:**
#5617	Brooks Field

	YES	NO
1. General:		
a. Are the bleachers on level ground?	[X]	[ ]
b. Are the bleachers leaning to one side?	[ ]	[X]
c. When walking on the bleachers, do they feel unstable in any way?	[ ]	[X]
2. Structural supports:		
a. Are there any signs of corrosion or rot?	[ ]	[X]
b. Are there any damaged, loose, or missing cross braces?	[ ]	[X]
c. Do any braces protrude past the bench seat edges?	[ ]	[X]
d. Are any welds cracked?	[ ]	[X]
3. Seat and foot boards:		
a. Do seat and foot boards protrude over 20 inches from end of frames?	[ ]	[X]
b. Are all seat and foot boards present and securely fastened?	[X]	[ ]
c. Are all nuts and bolts present and tight?	[X]	[ ]
d. Are any seat and foot boards abnormally bowed?	[X]	[ ]
e. Are seat and foot boards splintered, cracked, or termite and insect infested?	[ ]	[X]
4. Are bleachers four or more risers high equipped with standard handrails?	[X]	[ ]
5. If no handrail, is the top seat and a 4 inch strip on open sides of bleacher painted yellow?	[X]	[ ]

INSPECTOR'S PRINTED NAME:
INSPECTOR JOE

DUTY POSITION:
UNIT SAFETY

SIGNATURE:
/Signature/

FK FORM 5012, JUN 2015 PREVIOUS EDITION IS OBSOLETE. FK LCES2 v9.0

Figure B-1. Sample Bleacher Inspection Checklist.

Appendix C
Hazard Communication Procedures

C-1. Basic Procedures

a. Labeling.

(1) Labeling shall provide workers with baseline information on the substances to which they are exposed. A label is not intended to provide full information on the substance.

(2) There is no standard format for the GHS label, however, workplace labeling requires product identifier and words, pictures, symbols, or combination thereof, which provide at least general information regarding the hazards of the chemicals, and which, in conjunction with the other information immediately available to employees under the hazard communication program, will provide employees with the specific information regarding the physical and health hazards of the hazardous chemical.

(3) Containers into which a toxic substance or mixture is being transferred from a labeled container, and which is intended for immediate use by the employee making the transfer, are exempt from labeling.

(4) Containers must be individually labeled. The labels must be affixed and displayed in such a manner that employees can easily identify the hazardous substance contained within.

(5) If labeling or re-labeling is required, the user shall ensure the label complies with OSHA 29 CFR 1910.1200.

(6) Information on the hazardous chemical label shall include the chemical name and the name of the manufacturer, importer, or responsible party, and appropriate hazards.

(7) The chemical/common name on the label shall be the same as shown on the SDS.

(8) Hazardous wastes must also meet the labeling requirements of the environmental Protection Agency. Activities generating hazardous wastes will contact the DPW Environmental Management Division, to properly dispose of hazardous waste.

b. SDS

(1) Contents of any SDS used in Garrison must meet OSHA requirements.

(2) SDS for locally purchased items and nonstandard stock hazardous chemicals should be requested at time of purchase.

(3) If a SDS is not received with a locally purchased hazardous chemical, the supervisor may contact the vendor, manufacturer or find it on the Internet by typing "SDS" in the search window. The hazardous chemical will not be used until an SDS is available.

(4) Identification of a hazardous material and correct matching to its SDS is required. Critical differences exist between similarly named chemicals/products from different manufacturers.

(5) All personnel will have ready access during each work shift to SDS applicable to their work area. Accessibility will be achieved by placing copies in the immediate work area or by providing rapid response from a centralized SDS file. Employees who question the safe use of a material will not be required to use it

until an approved SDS is provided and the hazards and protective procedures explained.

(6) Protection of trade secret information is required. Data contained in the limited release edition of the hazardous materials information system will be treated in the same manner as "For Official Use Only" information.

C-2. Checklist for Hazard Communication Compliance.

a. Is an individual appointed to coordinate the Hazard Communication Program within the activity?

b. Is there a hazardous chemical inventory covering all hazardous chemicals within the organization and is the inventory list readily available to workers?

c. Is the hazardous chemical inventory kept up-to-date and is the updated list forwarded to the appropriate safety personnel?

d. Is a copy of the hazardous chemical inventory and the location of the SDS's maintained on the worksite bulletin board?

e. Is there a Safety Data Sheet for each chemical in the inventory and are the SDS's readily available for the worker's review?

f. Is there an SOP developed covering the execution of the hazardous chemical program within the directorate/activity?

g. Have all personnel who work with hazardous chemicals as a normal part of their duties been properly trained (i.e., The Federal Hazard Communication Training Program and unit specific training)?

h. Are all hazardous chemical containers properly labeled?

i. Are all hazardous chemicals properly stored?

j. Have all personnel who work in facilities where hazardous chemicals are stored been informed of their presence and told what to do in case of emergency.

Appendix D
Lockout Tagout Procedures

D-1. Lockout Procedures

a. Individual(s) performing maintenance will notify all affected employees that a lockout is required and the reasons for the lockout.

b. If the equipment is operating, shut it down by normal stopping procedure (depress stop button, open toggle switch, etc.).

c. Operate the switch, valve, or other energy-isolating device so that the energy source(s) (electrical, mechanical, hydraulic, etc.) is disconnected or isolated from the equipment. Stored energy such as that in capacitors, springs, elevated machine members, rotating flywheels, hydraulic systems, and air, gas, steam, or water pressure, etc., must also be dissipated or restrained by methods such as grounding, repositioning, blocking, bleeding-down, etc.

D-2. Restoring Equipment to Service

Removal of lockout/tagout devices by persons other than the employee(s) who applied them is not authorized unless circumstances are such that the employee(s) who applied them is unable to remove them. See paragraph E-5.

D-3. Procedure Involving More Than One Person

a. All employees performing maintenance on the same equipment or machinery shall place their own personal lockout/tagout device on the energy device(s).

b. When employees no longer need to maintain their lockout protection, they will remove their lock/tag from the energy isolating device(s).

D-4. Shift or Personnel Changes

a. If work on equipment is required by the next shift, the employee(s) shall affix their lockout/tagout to the equipment identifying them as the responsible party for locking or tagging out the energy sources to the equipment.

b. The employee replacing the existing lock or tag should follow procedures in paragraph E-1.

D-5. Removal of Isolating Devices

a. This procedure will only be applied to those situations where circumstances are such that the employee who applied the lockout or tagout is unavailable to remove them.

b. The supervisor must verify that the employee who applied the device is unavailable to remove the lock or tag.

c. Every reasonable effort will be made to contact employees to inform them that their lockout or tagout device has been removed.

d. The supervisor will ensure that the employees have been informed that their tags have been removed before the employees resume work in the facility where the lockout or tagout device was removed.

e. The reason for removal of a employee's energy isolating device shall be documented by the supervisor with a copy provided to the ISO.

D-6. Training

a. Training shall be provided to ensure the purpose, function, knowledge and skills of the lockout/tagout programs and procedures are understood by supervisors, operators, and qualified equipment maintenance. Training shall include the following:

(1) Each supervisor, operator, or any qualified equipment maintenance person shall receive initial job training on the type and magnitude of applicable energy sources, the methods and means necessary for energy isolation and control, and the use of the lockout/tagout procedures.

(2) All other personnel whose duties are, or may be in an area where lockout/tagout procedures may be utilized, shall be briefed on the lockout/tagout program during the initial job safety briefing.

b. When lockout/tagout procedures are used, supervisors, operators, or any qualified equipment maintenance personnel shall receive initial job training on the use of locks and tags as follows:

(1) Tags are essentially warning devices attached to energy isolating devices and do not provide the physical restraint on those devices that is provided by a lock.

(2) When a lock or tag is attached to an energy-isolating device, only the person, supervisor or the designated representative, who initially installed the lock/tag, can remove it. The lockout/tagout shall never be bypassed, ignored, or otherwise defeated.

(3) Tags may cause a false sense of security. Their use and limitations need to be understood as part of the overall energy control program.

(4) Tags will be securely attached so they cannot be inadvertently or accidentally detached during use.

c. Retraining shall be provided for supervisors, operators, and qualified equipment maintenance personnel at least annually or when a change in their job assignments, a change in machines or equipment, processes that present a new hazard, or when there is a change in the lockout/tagout procedures. Additional retraining shall also be conducted whenever a periodic inspection reveals that there are deviations from, or inadequacies in, the supervisor, operator, or qualified equipment maintenance personnel's knowledge or use of the lockout/tagout procedures. All training shall be certified, documented, and kept up-to-date. The certification shall contain each individual's name and dates of training.

Appendix E
Bloodborne Pathogen Procedures

E-1. Procedures

a. Directors and chiefs, having personnel with occupational exposure to bloodborne pathogens or other potentially infectious materials shall establish a written SOP designed to mitigate personnel exposure. The SOP shall contain at least the following elements:

(1) An exposure determination shall be developed which includes all job classifications in which personnel have occupational exposure to blood, body fluids, or other potentially infectious materials. In addition to the job classifications, list all tasks and procedures that are performed by personnel in which occupational exposure occurs. This exposure determination shall be made without regard to the use of PPE.

(2) A copy of the SOP shall be accessible to all personnel.

(3) The SOP shall be reviewed and updated at least annually, when necessary to reflect new or modified tasks and procedures that affect occupational exposure, and to reflect new or revised personnel positions with occupational exposure. The JHAs will be attached as an appendix.

b. Methods of compliance:

(1) General. Standard precautions shall be observed to prevent contact with blood or other potentially infectious materials. All body fluids shall be considered potentially infectious materials.

(2) Antiseptic hand cleanser, in conjunction with clean cloth/paper towels or antiseptic towelettes, may be used when hand-washing facilities are not available. When antiseptic hand cleansers or towelettes are used, hands shall be washed with soap and running water as soon as possible.

(3) Personnel will wash hands and any other skin with soap and water, or flush mucous membranes with water immediately or as soon as feasible, following contact of such body areas with blood or other potentially infectious materials.

(4) Equipment that may become contaminated with blood or other potentially infectious materials shall be decontaminated. Decontaminate equipment by using an Environmental Protection Agency (EPA)-approved disinfectant. Read and follow the product instructions found on the container as well as the Safety Data Sheet.

E-2. Personal Protective Equipment (PPE)

a. Appropriate PPE shall be provided at no cost to personnel. PPE provides for the protection of work clothes, street clothes, undergarments, skin, eyes, mouth, or other mucous membranes under normal conditions of use and for the duration of time that the protective equipment will be used.

b. The supervisor shall:

(1) Ensure that PPE is cleaned, laundered, or disposed of at no cost to personnel.

(2) Ensure that PPE is repaired or replaced as needed to maintain its effectiveness.

c. Employees will:

(1) Remove garment(s) that is penetrated by blood or other potentially infectious materials as soon as possible.

(2) Remove PPE before leaving the work area and place in an appropriate designated area or container for storage, washing, decontamination or disposal.

E-3. Housekeeping

Contaminated work surfaces shall be decontaminated with an appropriate disinfectant after completion of procedures; when surfaces are overtly contaminated; after any spill of blood or other potentially infectious materials; and at the end of the work shift.

E-4. Employee Health Components

a. Hepatitis B vaccine will be made available to personnel who have been determined by the Chief, PMS to be at high risk for occupational exposure to blood or other potentially infectious material (OPIM). Hepatitis B vaccine is available for personnel in high-risk occupations. Requests for the vaccine are issued and administered by the Occupational Health Clinic.

b. Civilian employees who choose not to accept the offer of the Hepatitis B vaccination must sign the mandatory declination statement, found in (paragraph G-9) 29 CFR 1910.1030, appendix A. If an employee initially declines the vaccination but later decides to undergo the vaccination series the employer must provide the vaccine at that time, provided the employee is still occupationally exposed.

E-5. Post-Exposure Evaluations and Follow-Up

a. Personnel who have had an exposure to blood or OPIM are to seek a medical evaluation immediately. The medical evaluation will be conducted at the emergency room with a consultation to Occupational Health for follow-up. The medical evaluation and follow-up will include the following elements:

(1) Documentation of exposure route and circumstances surrounding the exposure incident.

(2) Identification of the source individual should be determined if feasible. The source individual's HIV and HBV infection status must be determined and documented per laws and regulations related to consent for testing, documentation, and confidentiality.

(3) The source individual's laboratory results, as they pertain to exposure, will be made available to the affected individual. The affected individual must be informed of applicable confidentiality laws relative to source individual.

(4) Collection of the individual's blood for baseline Hepatitis B Virus and Human Immunodeficiency Virus testing must be done as soon as possible after consent is obtained. If the Individual consents to a baseline blood collection but does not give permission at that time for HIV testing, the sample must be stored in a manner that would preserve it for testing within the next 90 days. This 90-day period provides time for the individual to receive counseling and make an informed decision about testing. If, within the 90-day period, the individual decides to proceed with testing and provides consent. Occupational Health Service would submit the order to conduct the testing as soon as possible.

b. The supervisor must assure that the evaluating healthcare professional is provided with:

(1) A copy of the blood borne pathogens standard.

(2) A description of the affected individual's duties as they relate to the occupational exposure.

(3) Documentation of route of exposure, circumstances as to how exposure occurred, and results of the source individual's blood testing related to the exposure incident, if available, and the affected individual's medical records

c. The health care provider must provide the health care professional's written opinion to the supervisor, who in turn must give a copy to the affected individual within 15 working days of the completion of the evaluation.

d. The written opinion is documentation that the affected individual has been told about any medical conditions resulting from exposure to blood or OPIM, which requires further evaluation or treatment. Documentation confirms if Hepatitis B vaccination was indicated and if the affected individual received the vaccine.

E-6. Recordkeeping

a. Medical Records. A confidential health record is initiated by the health care professional when an individual receives the Hepatitis B vaccination or is treated following an exposure incident. This record includes:

(1) Name and social security number of the individual.

(2) A copy of the individual's Hepatitis B vaccination status.

(3) Testing and examination results and follow-up procedures.

(4) A copy of the health care professional's written opinion and information provided by the employer to the health care professional about the exposure incident.

b. Training Records. Information that must be maintained in these records include:

(1) Dates of the training sessions.

(2) Contents or a summary of the training sessions.

(3) Names and qualifications of the people conducting the training sessions.

(4) Names and job titles of all personnel attending the training sessions.

(5) Training records shall be maintained by the supervisor for 3 years from the date on which the training occurred.

E-7. Information and Training

a. All personnel with potential occupational exposure will participate in a training program, which will be provided during duty hours. A qualified instructor will provide the necessary training.

b. Training shall be provided at the time of initial assignment to tasks where occupational exposure may take place and at least annually thereafter. Additional training shall be provided when changes such as modification of tasks or procedures, or new tasks or procedures, affect the individual's occupational exposure.

E-8. Employee Declination Statement for Hepatitis B Vaccine.

Civilian employees who choose not to accept the offer of the Hepatitis B vaccination must sign a mandatory declination statement per 29CFR1910.1030 (f)(2)(iv). (See figure E-1, sample of an Employee Declination Statement for Hepatitis B Vaccine.)

I understand that due to my occupational exposure to blood or other potentially infectious materials, I may be at risk of acquiring Hepatitis B Virus (HBV) infection. I have been given the opportunity to be vaccinated with Hepatitis B vaccine, at no charge to myself. However, I decline Hepatitis B vaccination at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring Hepatitis B, a serious disease. If, in the future, I continue to have occupational exposure to blood or other potentially infectious materials and I want to be vaccinated with Hepatitis B vaccine, I can receive the vaccination series at no charge to me.

SIGNATURE/DATE

Figure E-1. Sample of an Employee Declination Statement for Hepatitis B Vaccine.

Appendix F

Table F-1.
Army Explosives Safety Courses

Legend	
AMMO-107 OR 107-DL	Introduction to Explosives Safety for Safety Professionals
AMMO-45-DL	Introduction to Ammunition
AMMO-31-DL	Environmental Considerations for Ammunition Personnel
AMMO-63-DL	U.S. Army Explosives Safety Familiarization
AMMO-78-DL	Ammunition Publications
AMMO-54-DL	Risk Management for and Preparation of SOPs for A&E Operations
AMMO-68-DL	Military Munitions Rule
AMMO-65	DoD Contractors' Explosives safety Standards
AMMO-82	Explosives Safety Quantity Distance
AMMO-99-DL	Application of U.S. Army ESQD Principles
AMMO-28-DL	Electrical Explosives Safety For Army Facilities
AMMO-112-DL	Explosive Safety in Storage
AMMO-100-DL	U.S. Army Explosives Safety Site Planning Course
AMMO-101-DL	Tutorial for DDESB QD Calculator
AMMO-103-DL	Explosives Safety Siting and Army Site Submission Electronic Tool (ASSET)
AMMO-87-DL	Military Munitions Response Program (MMRP)
AMMO-90-DL	Munitions Response Site Prioritization Protocol
AMMO-97-DL	Munitions History Program

Notes:

1-AMMO designated numbers are U.S. Army Defense Ammunition Center course numbers.

2-Course numbers ending with DL indicate a distance learning course.

3-See chapter 20 for certification and training requirements associated with the transportation of AE.

4-USACE Ordnance and Explosives Safety Specialists (OESSs) shall follow the minimum requirements of DDESB TP-27 and the CP12 Explosives Safety Handbook.

5-Pre-requisite courses for AMMO-107 are: AMMO-45-DL, AMMO-63-DL, and AMMO-78-DL.

6-Commanders will designate the Ammunition Area/Operation Supervisors and Ammunition Handling and/or Operating Personnel for which this training is mandatory based on their duties.

7-Mandatory for safety professionals with explosives safety roles and responsibilities in industrial and RDT&E missions and functions; recommended for safety professionals with explosives safety roles and responsibilities in munitions response missions and functions.

8-Mandatory for safety professionals with explosives safety roles and responsibilities in munitions response missions and functions.

Appendix G
Explosive Certification Board

G-1. Purpose. To establish an ammunition and explosives handler certification board for personnel involved in conventional ammunition operations IAW Army regulations. This requires the Garrison and tenant activities to permit interim and certified personnel to participate in operations involving ammunition, explosives, and explosive components. The program is designed to increase ammunition safety awareness, technical knowledge, and employees' operational proficiency.

G-2. The board will meet at the call of the Chairman (Ammunition Accountable Officer), Representative or the Installation Safety Office, and is composed of the following members or alternates:

a. Installation Safety Director or ISO Representative
b. Ammunition Accountable Officer, LRC
c. Installation Ammunition Manager, DPTMS
d. Quality Assurance Specialist Ammunition Surveillance (QASAS), DOL/LRC
e. Ammunition Supply Point Lead Contract Representative
f. Ammunition Representative, Cadet Command
g. Ammunition Representative, 19th Engineer Battalion
h. Ammunition Representative, 84th Training Command
i. Ammunition Representative, 83rd ARTTC Command
j. Ammunition Representative, 1st Army East Command
k. Ammunition Representative, 1103rd MP Command
l. Ammunition Representative, 11th Aviation Command
m. Ammunition Representative, State Ammunition Mangers (STAM)

G-3. The training and certification program covers all Department of the Army (DA) civil service employees, military personnel, and contract employees who perform work involving ammunition, explosives or explosive components.

G-4. All personnel involved in ammunition and or explosive planning and operation, must have interim or final certification prior to their assignment.

Appendix H
Salute Cannon

H-1. Guidance for salute cannons can be found in US Army Cadet Command (USACC) and Fort Knox, Standard Operating Procedures – Retreat Flag Call/Salute/Ceremony Cannon Firing Procedures, dated 8 May 2014.

H-2. This SOP references policy governing the scheduling, planning, preparation and execution of firing procedures for ceremonial cannon firing with an emphasis on safety protocol

H-3. Ensure operating manuals (AR, TM, FM, etc.) are on hand and match type of cannon being fired and ammo being used, to include: references for cannon firing procedures, clearing, check fire, and misfire.

Appendix I
Inspection Checklist

FORT KNOX SAFETY CHECKLIST

ADDITIONAL/COLLATERAL DUTY SAFETY OFFICERS

1. INSPECTED BY:	2. UNIT:	
Mr. John Wood	Cadet Command	
3. INSPECTED BUILDING #:	**4. BUILDING POC:**	**5. DATE:**
6547	Jennifer Johnson	10/10/2016

Use lines to write in locations of deficiencies found

6. Have additional duty safety personnel been appointed in writing? (AR 385-10 Para 2-5)	YES☒	NO☐	N/A☐
7. Is coordination effected between Fire Department and Occupational Health personnel to ensure that hazards identified are entered into the appropriate abatement plan? (AR 385-10 Para 18-12)	YES☒	NO☐	N/A☐
8. IS DD Form 2272 (Department of Defense Safety and Occupational Health Program), posted in all industrial workplaces? (AR 385-10 Para 16-2 (g))	YES☐	NO☐	N/A☒
Has updated form			
9. Are all workplaces inspected at least annually using Standard Army Safety and Occupational Health Inspections, (SASOHI), procedures? (AR 385-10 Para 17-6 (a)) (This form meets regulation)	YES☒	NO☐	N/A☐
10. Do Additional or collateral duty safety personnel conduct their Facility inspections on an annual basis's in order to assure buildings are being properly maintained? (AR 385-10 Para 17-6(g))	YES☒	NO☐	N/A☐
11. Is a representative of the official in charge of the workplace and an authorized representative of civilian employees given the opportunity to accompany the inspector during physical inspections of the workplace? (AR 385-10 Para 17-6 (j))	YES☒	NO☐	N/A☐
12. Are all places of employment, passageways, storerooms, and service rooms kept clean and orderly and in a sanitary condition? (1910.22(a)(1))	YES☒	NO☐	N/A☐
13. Are the floors of every workroom maintained in a clean and, so far as possible, dry condition? (1910.22(a)(2))	YES☒	NO☐	N/A☐
14. Is every floor, working place, and passageway free of protruding nails, splinters, holes and loose boards? (1910.22(a)(3))	YES☒	NO☐	N/A☐
15. Where mechanical handling equipment is used, is sufficient safe clearance allowed for aisles, at loading docks, through doorways and wherever turns or passage must be made? (1910.22(b)(1))	YES☒	NO☐	N/A☐
16. Are aisles and passageways kept clear and in good repairs, with no obstructions across or in aisles that could create a hazard? (1910.22(b)(1))	YES☐	NO☒	N/A☐
Exit door blocked with boxes			

FK FORM 1026, SEP 2017

FK LCES4 v3.0

Figure I-1. Sample Inspection Checklist form.

17. Are the floors of every workroom maintained in a clean and, so far as possible, dry condition? (1910.22(a)(2))	YES☒	NO☐	N/A☐
18. Is every floor working place, and passageway free of protruding nails, splinters, holes and loose boards? (1910.22(a)(3))	YES☒	NO☐	N/A☐
19. Where mechanical handling equipment is used, is sufficient safe clearance allowed for aisles, at loading docks, through doorways and wherever turns or passage must be made? (1910.22(b)(1))	YES☒	NO☐	N/A☐
20. Are aisles and passageways kept clear and in good repairs, with no obstructions across or in aisles that could create a hazard? (1910.22(b)(1))	YES☒	NO☐	N/A☐
21. Are permanent aisles and passageways appropriately marked? (1910.22(b)(2)) Needs to be repainted	YES☒	NO☐	N/A☐
22. Are exit routes permanent? (1910.36(a)(1))	YES☒	NO☐	N/A☐
23. Are openings into exits protected by a self-closing fire door that remains closed or automatically closes in an emergency upon the sounding of a fire alarm or employee alarm system? (1910.36(a)(3))	YES☒	NO☐	N/A☐
24. Are at least two exit routes available in the workplace to permit prompt evacuation of employees and other building occupants during an emergency, except as allowed in paragraph (b) (3) of this section? (1910.36(b)(1))	YES☒	NO☐	N/A☐
25. Are exit routes located as far away as practical from each other so that if one exit route is blocked by fire or smoke, employees can evacuate using the second exit route? (1910.36(b)(1))	YES☒	NO☐	N/A☐
26. Does each exit discharge lead directly outside or to a street, walkway, refuge area, public way, or open area with access to the outside? (1910.36(c)(1))	YES☒	NO☐	N/A☐
27. Is each street, walkway, refuge area, public way, or open area to which an exit discharge leads large enough to accommodate the building occupants likely to use the exit route? (1910.36(c)(2))	YES☒	NO☐	N/A☐
28. Are employees able to open an exit route door from the inside at all times without keys, tools, or special knowledge? (A device such as a panic bar that locks only from the outside is permitted on exit discharge doors) (1910.36(d)(1))	YES☒	NO☐	N/A☐
29. Are exit route doors free of any device or alarm that could restrict emergency use of the exit route if the device or alarm fails? (1910.36(d)(2))	YES☒	NO☐	N/A☐

Figure I-1. Sample Inspection Checklist form-continued.

30. Are exit doors prohibited from being locked from the inside except in mental, penal, or correctional facilities and then only if supervisory personnel are continuously on duty and the employer has a plan to remove occupants from the facility during an emergency? (1910.36(d)(3))	YES☒	NO☐	N/A☐
31. Is the width of an exit route sufficient to accommodate the maximum permitted occupant load of each floor served by the exit route? (1910.36(g)(3))	YES☒	NO☐	N/A☐
32. Are objects that project into the exit route prohibited from reducing the width of the exit route to less than minimum width requirements for exit routes? (1910.36(g)(4))	YES☒	NO☐	N/A☐
33. Are exit routes kept free of explosive or highly flammable furnishings or other decorations? (1910.37(a)(1))	YES☒	NO☐	N/A☐
34. Are exit routes maintained free of obstructions? (1910.37(a)(3))	YES☒	NO☐	N/A☐
35. Are materials and equipment prohibited from being placed, either permanently or temporarily, within exit routes? (1910.37(a)(3))	YES☐	NO☒	N/A☐
Delivery of boxes are in exit			
36. Are safeguards designed to protect employees during an emergency, (e.g., sprinkler systems, alarm systems, fire doors, exit lighting), maintained in proper working order at all times? (1910.37(a)(4))	YES☒	NO☐	N/A☐
37. Is each exit route adequately lighted so that an employee with normal vision can see along the exit route? (1910.37(b) (1))	YES☒	NO☐	N/A☐
38. Is each exit clearly visible and marked by a sign marked exit? (1910.37(b) (2))	YES☒	NO☐	N/A☐
39. Is each exit free of decorations or signs that obscure the visibility of the exit route door? (1910.37(b) (3))	YES☒	NO☐	N/A☐
40. Does each doorway or passage along an exit access that could be mistaken for an exit marked "Not an Exit" or similar designation, or identified by a sign indicating its actual use, (e.g. closet) (1910.37(b))	YES☒	NO☐	N/A☐
41. Is each exit sign illuminated to a surface value of at least five foot-candles (54 lux) by a reliable light source and is it distinctive in color? (self-luminous or electroluminescent signs that have a minimum luminance surface value of at least .06 foot lamberts (0.21 cd/m^2) are permitted) (1910.37(b) (6))	YES☒	NO☐	N/A☐
42. Does each exit sign have the word "Exit" in plainly legible letters not less than six inches (15.2cm) high, with the principal strokes of the letters in the word "Exit" not less than three-fourths of an inch (1.9cm) wide? (1910.37(b) (7))	YES☒	NO☐	N/A☐

Figure I-1. Sample Inspection Checklist form-continued.

43. Has the employer installed and maintain an operable employee alarm system that has a distinctive signal to warn employees of fire or other emergencies, unless employees can promptly see or smell a fire or other fire in time to provide adequate warning to them? (1910.37(e))	YES☒	NO☐	N/A☐
44. Is the emergency action plan in writing, kept in the workplace, and available to employees for review? (employers with 10 or fewer employees may communicate the plan orally) (1910.38(b))	YES☒	NO☐	N/A☐
45. Does the emergency action plan include, at a minimum, the following elements? (1910.38(c)) Procedures for reporting a fire or other emergency, Procedure for emergency evacuation, including type of evacuation and exit route assignments, Procedures to be followed by employees who remain behind to operate critical plant operations before they evacuate, Procedures to account for all employees after evacuation, Procedures to be followed by employees performing rescue and medical duties and names or job titles of every employee who can be contacted for further information or explanation of duties under the plan.	YES☒	NO☐	N/A☐
46. Does the employer designate and train employees to assist in a safe and orderly evacuation of other employees? (1910.38(e))	YES☒	NO☐	N/A☐
47. Does the employer review the plan with each employee who is covered by the plan at the following times? (1910.38(f)) When the plan is developed or the employee is initially assigned to a job, whenever the employee responsibilities under the plan change, or whenever the plan is changed.	YES☒	NO☐	N/A☐
48. Is the fire prevention plan in writing, kept in the workplace and made available to employees for review? (employers with 10 or fewer employees may communicate the plan orally) (1910.39(b))	YES☒	NO☐	N/A☐
49. Does the fire prevention plan include the following? (1910.39(c)) A list of the major fire hazards, proper handling and storage procedures for hazardous materials, potential ignition sources and their control, and the type of fire protection equipment necessary to control each major hazard, procedures to control accumulations of flammable and combustive waste materials, procedures for regular maintenance of safe guards installed on heat-producing equipment to prevent the accidental ignition of combustive materials.	YES☒	NO☐	N/A☐
50. Does the employer inform employees of the fire hazards to which they are exposed upon initial assignment to a job? (1910.39(d))	YES☒	NO☐	N/A☐
51. Does the employer review with each employee those parts of the plan necessary for self-protection? (1910.39(d))	YES☒	NO☐	N/A☐
52. Are portable fire extinguishers provided and are they mounted, located and identified so that they are readily accessible to employees, without subjecting the employees to possible injury? (1910.157(c)(1))	YES☒	NO☐	N/A☐

Figure I-1. Sample Inspection Checklist form-continued.

53. Are fire extinguishers maintained in a fully charged and operable condition and kept in their designated place at all times except during use? (1910.157(c)(4))	YES☐	NO☒	N/A☐
One Fire extinguisher was being used as a door stop and not in bracket			
54. Are portable fire extinguishers for use by employees on Class A fires distributed so that the travel distance for employees to any fire extinguisher is 75 feet or less? (1910.157(d)(2))	YES☒	NO☐	N/A☐
55. Are portable fire extinguishers or hoses used in lieu of portable fire extinguishers, visually inspected monthly? (1910.157(e)(2))	YES☒	NO☐	N/A☐
56. Are portable fire extinguishers subjected to an annual maintenance check? (1910.157 (e)(3))	YES☐	NO☒	N/A☐
2 Fire Extinguishers were not inspected annually by Fire department			
57. Is the employee alarm capable of being perceived above ambient noise or light levels in the affected portions of the workplace? (1910.165(b)(2))	YES☒	NO☐	N/A☐
58. Does the employer explain to each employee the preferred method of reporting emergencies, such as manual pull box alarms, public address systems, radio or telephone? (1910.165(b)(4))	YES☒	NO☐	N/A☐
59. Does the employer post emergency telephone numbers near telephones, or employee notice boards and other conspicuous locations when telephones serve as a means of reporting emergencies? (1910.165(b)(4))	YES☒	NO☐	N/A☐
60. Is there an established procedure for sounding emergency alarms in the workplace? (1910.165(b)(5))	YES☒	NO☐	N/A☐
61. Are only approved containers and portable tanks used for flammable and combustible liquid storage? (1910.106(d)(2)(i))	YES☒	NO☐	N/A☐
62. Are outside storage buildings located fifty (50) feet or more from a building or line of adjoining property that may be built upon (buildings located within 50 feet must have a two (2) hour fire resistant wall)? (1910.106(d)(5)(vi))	YES☒	NO☐	N/A☐
63. Are open flames and smoking prohibited in flammable and combustible liquids storage areas? (1910.106(d)(7)(iii))	YES☒	NO☐	N/A☐
64. Is electrical equipment free from recognized hazards that are likely to cause death or serious physical harm to employees? (1910.303 (b) (1))	YES☒	NO☐	N/A☐
65. Are conductors entering boxes, cabinets, or fittings protected from abrasion; and openings, through which conductors enter, effectively closed? (1910.305 (b) (1))	YES☒	NO☐	N/A☐
66. Are all unused openings in cabinets, boxes, and fittings effectively closed? (1910.305(b)(1)(ii))	YES☒	NO☐	N/A☐

Figure I-1. Sample Inspection Checklist form-continued.

67. Are all pull boxes, junction boxes, and fittings provided with approved covers? (1910.305(b)(2)(i))	YES☒	NO☐	N/A☐
68. Are flexible cords and cables prohibited from use as a substitute for permanent wiring of a structure, and prohibited from being run through holes in walls, ceilings, or floors, running through doorways, windows, or similar openings? (1910.305(g)(1)(iv))	YES☒	NO☐	N/A☐
69. Are flexible electric cords prohibited from fastened with staples or otherwise hung in such a fashion as could damage the outer jacket or insulation? (1910.334(a)(1))	YES☒	NO☐	N/A☐
70. Are attachment plugs and receptacles prohibited from connections and alterations that would prevent proper continuity of the equipment grounding connector? (1910.334 (a)(3)(ii))	YES☒	NO☐	N/A☐
71. Are extension cords not used in a daisy chain (two extension are not allowed to be plugged into each other)? This is a prohibited use of extension cords. (DA Pam 385-26 Para 2-4(o))	YES☐	NO☐	N/A☐
72. Is OSHA Poster (DD Form 2272) posted on the bulletin board? (AR 385-10 Para 16-2(g))	YES☐	NO☐	N/A☒
73. Is OSHA Poster (DD Form 2272) posted on the bulletin board? (AR 385-10 Para 16-2 (g).	YES☒	NO☐	N/A☐
74. Is good housekeeping being practiced? (29 CFR 1910.22)	YES☒	NO☐	N/A☐
75. Are employees cautioned of the danger associated with leaning back in chairs?	YES☒	NO☐	N/A☐
76. Do chairs have loose casters? Are rungs, legs and backs sturdy?	YES☒	NO☒	N/A☐
They are sturdy			
77. Is broken, cracked or splintered furniture taken out of service until repaired or replaced?	YES☒	NO☐	N/A☐
78. Are sharp tools such as scissors, razor blades, letter openers, etc., stored in such a manner as to minimize the chance of injury?	YES☒	NO☐	N/A☐
79. Are employees advised to open file drawers one at a time?	YES☒	NO☐	N/A☐
80. Are drawers, boxes, desks and chairs prohibited from use as ladders when climbing from one level to another?	YES☒	NO☐	N/A☐
81. If the office is equipped with storage cabinets, are heavy items stored in lower and middle shelves? (29 CFR 1910.176)	YES☒	NO☐	N/A☐

82. Is the lighting adequate in working areas?	YES☒	NO☐	N/A☐
83. Do personnel know proper techniques for lifting?	YES☒	NO☐	N/A☐
84. Are employees discouraged from carrying oversized loads?	YES☒	NO☐	N/A☐
85. Are chemicals stored in appropriate plastic or metal containers with tight-fitting lids?	YES☒	NO☐	N/A☐
86. Has each office employee been made aware of all hazardous materials they may contact in their work area. The *Hazard Communication Program* includes: Written Program, Material Safety Data Sheets for each hazardous substance used, specific safe handling, use and disposal and Employee Training?	YES☒	NO☐	N/A☐
87. Are the critical aspect of the Office Safety Program reviewed to include the housekeeping and storage of office materials and supplies for convenience, efficiency, and to reduce fire and personal injury hazards? Housekeeping Programs cover trash removal, recycling, destruction of discarded sensitive information, office maintenance, office storage and removal of ice/snow during inclement weather.	YES☒	NO☐	N/A☐
88. Are Material Storage programs established to maintain office materials for the convenience of the users, purchasing efficiency and fire prevention? The following general procedures are to be followed: shelf storage should be used for office supplies, paper products and flammable materials should not be stored in HVAC closets or electrical rooms, materials should not be stored within three feet of exits/emergency equipment or within 18 inches of ceilings/sprinkler heads.	YES☒	NO☐	N/A☐
89. Are heavy items, such as, cartons of office supplies and boxes of paper, broken-down to individual reams and stored at waist level? Commonly used items, like pens, paper clips and staples are stored at chest to eye level. Proper step-stools or ladders are provided to reach items stored overhead or out of reach. Materials should not be stored on a bare floor, within 18 inches of the wall/sprinkler heads or block any	YES☒	NO☐	N/A☐
90. Are Electrical Hazards reviewed which would include fire, electric shocks, trips and falls? Areas to review are efficient work station design, adding convenient outlets, use of fixed power strips with ground fault circuit and circuit overload interrupters in place of extension cords, replacing worn or broken power cords, never running power cords under carpet or chair pads, providing operation manuals and training for exposed-not qualified employees under the *Electrical Safety Program*. Office employees should be trained to never operate or repair electrical equipment unless they have read and understood the directions and to always un-plug the equipment before attempting any adjustments or repairs.	YES☒	NO☐	N/A☐

Figure I-1. Sample Inspection Checklist form-continued.

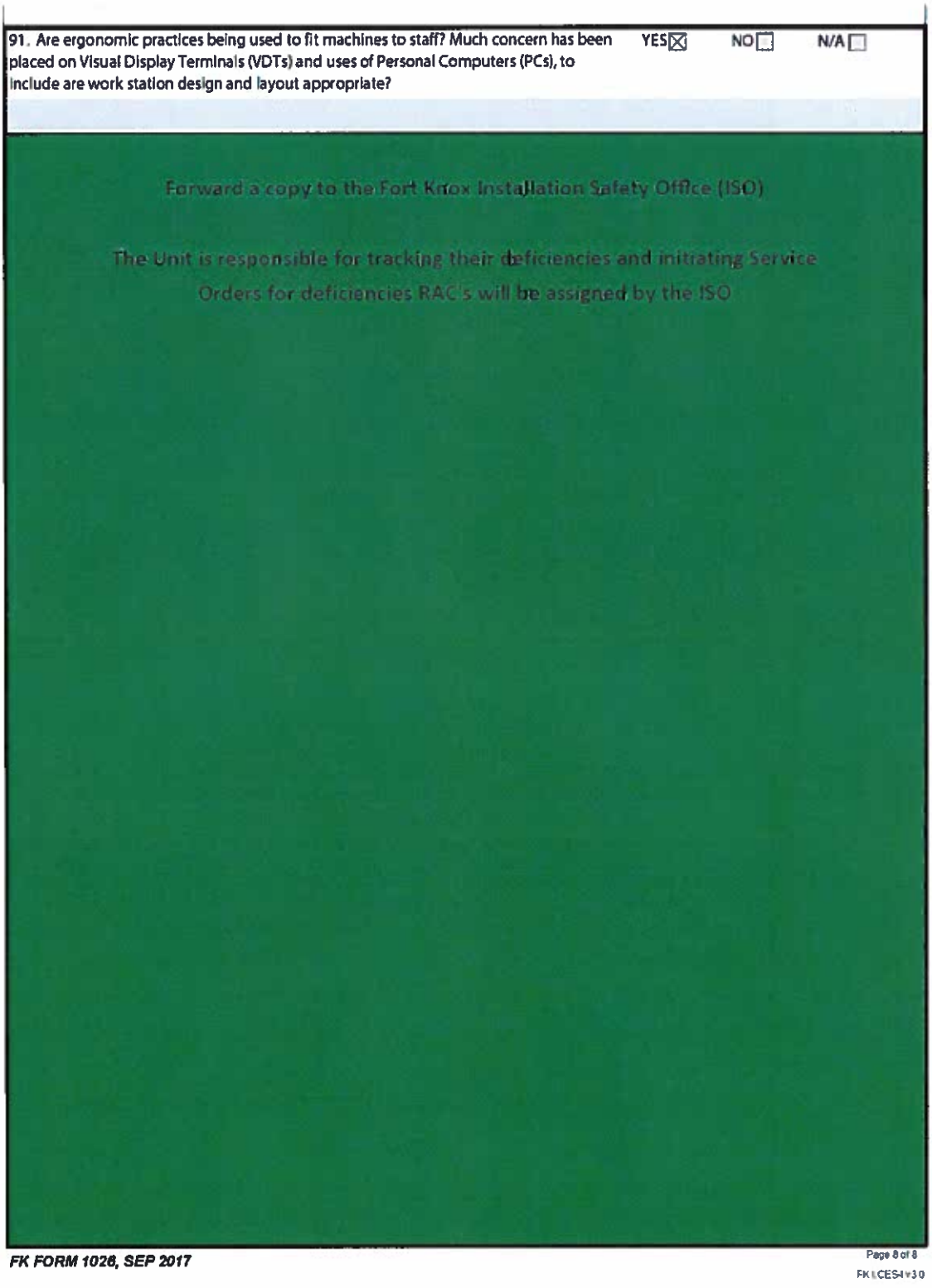


Figure I-1. Sample Inspection Checklist form-continued.

Appendix J
RAC Metric

Table J-1
RAC Matrix

Hazard Severity		Mishap Probability			
Description	Code	A Likely to occur immediately	B Probably will occur in time	C Possible to occur in time	D Unlikely to occur
Death, permanent total disability, or loss of facility or asset	I	1 Critical	1 Critical	2 Serious	4 Minor
Permanent partial disability or major property damage	II	1 Critical	2 Serious	3 Moderate	4 Minor
Lost workday injury or compensable injury, or minor property damage	III	2 Serious	3 Moderate	4 Minor	5 Negligible
Injury involving first aid or minor supportive medical treatment, a minimal threat to personnel or property, or a violation of a standard	IV	4 Minor	4 Critical	5 Negligible	5 Negligible

Table J-2.
Exposure Points Assessed

Alternate Exposure Route?	Exposure Condition			
	95th percentile <0.1 occupational Exposure limit (OEL)	95th percentile Between 0.1 OEL and 0.5 OEL	95th percentile Between 0.5 OEL and OEL	95th percentile >OEL
No	0	3	5	7
Yes	1-2	4	6	9

Table J-3.
Medical Effects Points Assessed

Condition	Points
No medical effect, such as nuisance noise and nuisance odor	0
Temporary reversible illness requiring supportive treatment, such as eye irritation and sore throat	1-2
Temporary reversible illness with a variable but limited period of disability, such as metal fume fever	3-4
Permanent, non-severe illness or loss of capacity, such as permanent hearing loss	5-6
Permanent, severe, disabling, irreversible illness. Such as asbestosis, lung cancer, or death.	7-8

Table J-4.
Determining the HHSC

Total Points (sum of exposure and medical effects points)	**HHSC**
13-17	**I**
9-12	**II**
5-8	**III**
0-4	**IV**

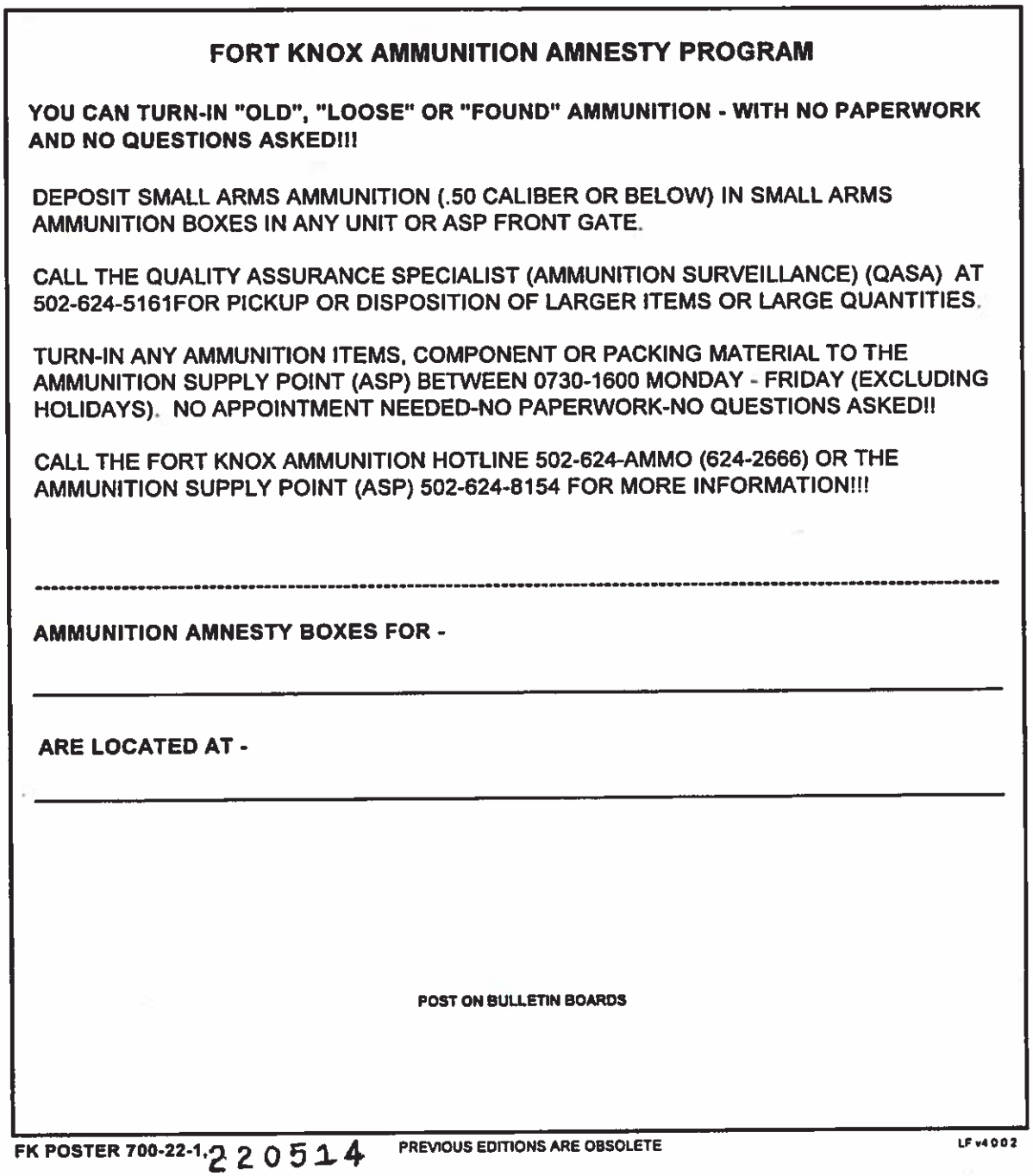
Appendix K
HAZLOG

Table K-1.
Safety Hazard Log (HAZLOG)

Safety Hazard Log								
Item #	Dat e	Location	Defi- ciency	Corrective Action	Safet y	Target Date For	RA Z	Work der

Sample Safety Hazard Log (HAZLOG)

Appendix L
Ammunition Amnesty Program



FORT KNOX AMMUNITION AMNESTY PROGRAM

YOU CAN TURN-IN "OLD", "LOOSE" OR "FOUND" AMMUNITION - WITH NO PAPERWORK AND NO QUESTIONS ASKED!!!

DEPOSIT SMALL ARMS AMMUNITION (.50 CALIBER OR BELOW) IN SMALL ARMS AMMUNITION BOXES IN ANY UNIT OR ASP FRONT GATE.

CALL THE QUALITY ASSURANCE SPECIALIST (AMMUNITION SURVEILLANCE) (QASA) AT 502-624-5161FOR PICKUP OR DISPOSITION OF LARGER ITEMS OR LARGE QUANTITIES.

TURN-IN ANY AMMUNITION ITEMS, COMPONENT OR PACKING MATERIAL TO THE AMMUNITION SUPPLY POINT (ASP) BETWEEN 0730-1600 MONDAY - FRIDAY (EXCLUDING HOLIDAYS). NO APPOINTMENT NEEDED-NO PAPERWORK-NO QUESTIONS ASKED!!

CALL THE FORT KNOX AMMUNITION HOTLINE 502-624-AMMO (624-2666) OR THE AMMUNITION SUPPLY POINT (ASP) 502-624-8154 FOR MORE INFORMATION!!!

AMMUNITION AMNESTY BOXES FOR -

_____

ARE LOCATED AT -

_____

POST ON BULLETIN BOARDS

FK POSTER 700-22-1, 220514 **PREVIOUS EDITIONS ARE OBSOLETE** LF v4002

Figure L-1. Sample Fort Knox Ammunition Amnesty Form.

Appendix M
Locations of Amnesty Containers
Current Locations of Amnesty Containers

a. USACC Arms Room, Bldg. 5926.

b. Corner of Upton Rd. and Main Range Rd.

c. Boatwright, Bldg. 2770 (outside fence at main entrance).

d. EUSS Parking Lot (east end of Bldg. 2380).

e. Wash Rack, Bldg. 9357 (across from Range Control).

f. 19th Engineers COFT (north end of Bldg. 2864).

g. ASP (corner of 484th Engineer and Muldraugh Magazine Rd.).

h. Corner of Wilson Rd. and 15th Cavalry Rd. (50 ft. east of dining facility, Bldg. 5940).

i. 15th Cavalry Rd. (85 ft. east of southeast corner of dining facility, Bldg. 6012).

j. Second Dragon Rd. (220 ft. north of NW corner of Bldg. 6555).

Note: Three additional temporary amnesty containers may be placed at LSA Densberger, Baker, Poorman, or FOB Professional as required for Cadet Summer Training (CST.

Appendix N
On Post Ammo Route

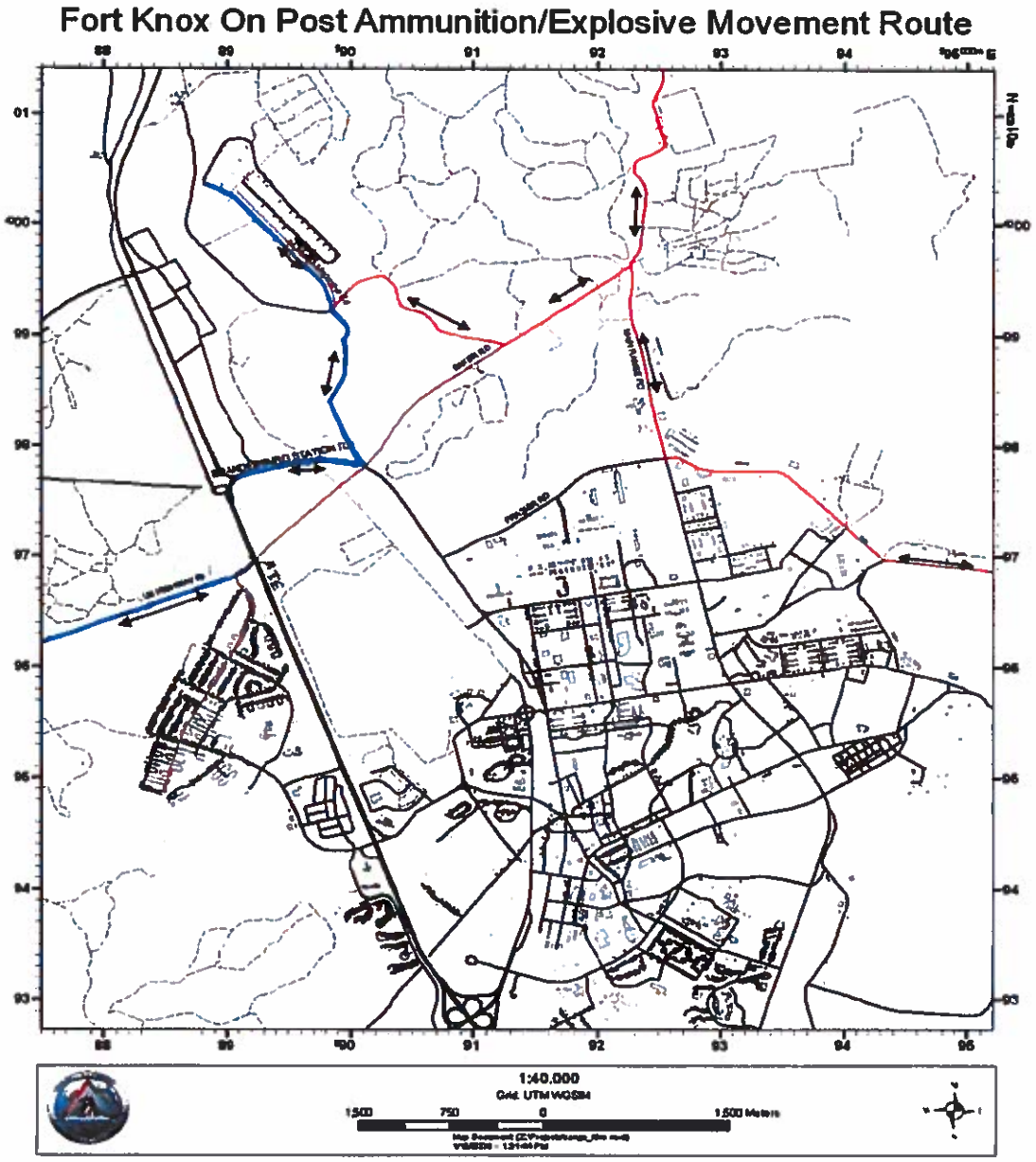


Figure N-1. Fort Knox On Post Ammunition/Explosive Movement Route.

Appendix O
Off Post Ammo Route

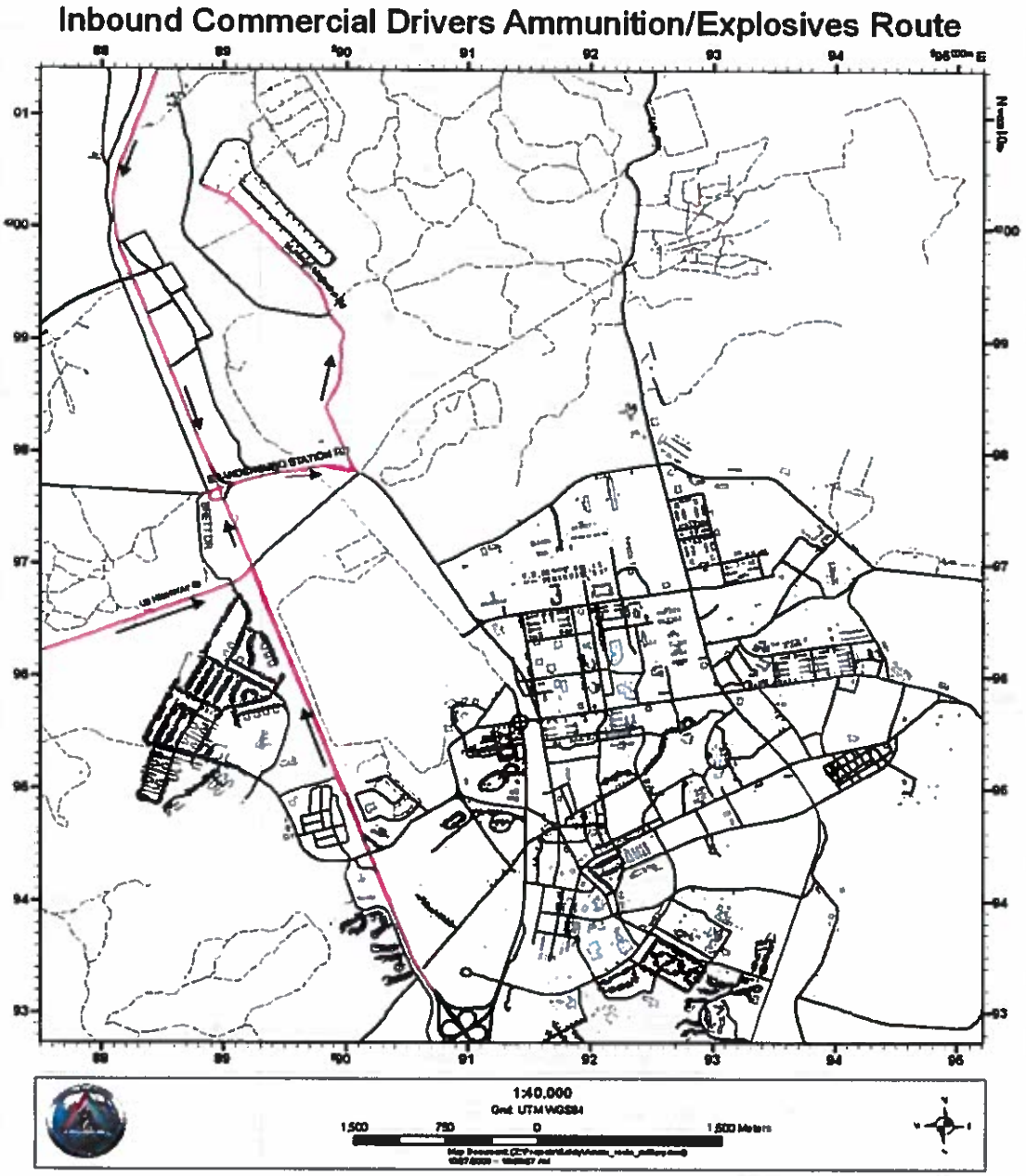


Figure O-1. Fort Knox Off Post Ammo Route.

Appendix P
Safety Incident Notification Form

FORT KNOX DA CIVILIAN SAFETY INCIDENT REPORT

For use of this form, see AR 385-40

ATTENTION: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes. When completed, this form is considered personal in nature and should be protected by a "FOR OFFICIAL USE ONLY" cover sheet.

FROM:	TO: Installation Safety Office IMKN-SO 197 6th Ave Ste 229 Fort Knox, KY 40121-5720
DFMWR CDC Bldg 4957	

SECTION I - PERSONNEL INFORMATION

1. EMPLOYEE NAME: Mr. Fred Jackson

2. UNIT: CDC	3. JOB TITLE: Care giver
4. JOB LOCATION: BLDG 4957	
5. AGE: 53 / 6. SEX: male	7. DUTY PHONE: 502-624-4447

SECTION II - INCIDENT INFORMATION

8. EXACT LOCATION OF INCIDENT:
Bldg 4957 Room 127

9. TIME AND DATE OF INCIDENT: 0900 10 Oct 2017	10. EQUIPMENT INVOLVED/AFFECTED: none TRAINED/LICENSED: ☐ YES ☐ NO

11. CAUSE OF INCIDENT: *(e.g., Struck by, struck against, fell, caught in/under/between)*
Fell

12. TYPE OF INCIDENT: *(e.g., Contusion, puncture, fracture, burn, amputation, sprain/strain)*
Strained

13. BODY PART(S) AFFECTED: *(e.g., Left foot, right arm, nose, back)*
back

14. a. DETAILED DESCRIPTION OF INCIDENT:
While taking care of 24 month old children turned to pick one up and tripped on a toy

b. ACTION TAKEN TO PREVENT RECURRENCE AMONG OTHER EMPLOYEES:
During safety meeting brought to the attention of all employees of the danger of not picking up toys and being aware of their surroundings.

15. PPE REQUIRED: ☐ YES ■ NO USED: ☐ YES ☐ NO	16. TRAINED ON TASK: ■ YES ☐ NO

SECTION III - SUPERVISOR INFORMATION

17. SUPERVISOR'S NAME: Ms. Jane Doe

18. EMPLOYEE TREATED AT: ■ IRELAND ARMY HOSPITAL ☐ PRIVATE PHYSICIAN/FACILITY ☐ NEITHER

19. DUTY PHONE: 502-624-1000	20. LOST TIME/RESTRICTED DUTY: 3 day restricted from lifting

21. CA FORM SUBMITTED: *(Date)* 10 Oct 2017

22. I CERTIFY THAT ALL INFORMATION PROVIDED IN THIS REPORT IS A TRUE REPRESENTATION OF THE INCIDENT ABOVE.

23. SUPERVISOR'S SIGNATURE:	24. DATE:

FK FORM 5070, JUN 2015 PREVIOUS EDITIONS ARE OBSOLETE. FK LCES2 v00

Figure P-1. Fort Knox DA Civilian Safety Incident Report.

Appendix Q
Declaration of Pregnancy

FORM LETTER FOR DECLARING PREGNANCY

This form letter is provided for your convenience. To make your written declaration of pregnancy, you may fill in the blanks in this form letter. You may use a form letter the licensee has provided to you or you may write your own.

DECLARATION OF PREGNANCY

To: Jane Doe

In accordance with the NRC's regulations at 10 CFR 20.1208, "Dose to an Embryo/Fetus", I am declaring that I am pregnant. I believe I became pregnant in 1 September 2017 (only the month and year need be provided).

I understand the radiation dose to my embryo/fetus during my entire pregnancy will not be allowed to exceed 0.5 rem (5 millisievert) (unless that dose has already been exceeded between the time of conception and submitting this letter). I also understand that meeting the lower dose limit may require a change in job responsibilities during my pregnancy.

Ms. Jane Doe
Ms. Jane Doe
14 September 2017

Figure Q-1. Sample Form Letter for Declaring Pregnancy.

Glossary
Abbreviations

3R
Recognize, Retreat, Report

A&E
Ammunition and Explosives (ammo)

ACADA
Army Chemical Agent Detector

ADSO
Additional Duty Safety Officer

AFOP
Ammunition Found on Post

AGAR
Army Ground Accident Report

AHA
Ammunition Holding Area

AHCRB
Ammo Handlers Certification Review Board

ALARA
As Low as Reasonably Achievable

AMC
Army Materiel Command

AMV
Army Motor Vehicle

ANSI
American National Standards Institute

APP
Accident Prevention Plan

AR
Army Regulation

ARC
Advance Rider Course

ASP
Ammunition Supply Point

ARSO
Alternate Radiation Safety Officer

ATSTP
Army Traffic Safety Training Program

ATV
All-Terrain Vehicle

BRC
Basic Rider Course

C2
Command and Control

CAM/ICAM
Chemical Agent Monitor/Improved Chemical Agent Monitor

CCMCK
Close Combat Mission Capability Kit

CCR
Certificate of Compelling Reason

CDSO
Collateral Duty Safety Officer

CFR
Code of Federal Regulations

CID
Criminal Investigation Division

CO
Carbon Monoxide

CONUS
Continental United States

COR
Contracting Officer Representative

CoRA
Certificate of Risk Acceptance

CPAC
Civilian Personnel Advisory Center

DA
Department of the Army

DA Pam
Department of the Army Pamphlet

DARA/DARP
Department of the Army Radiation Authorization/Permit

DB
Decibel

DDESB
Department of Defense Explosives Safety Board

DES
Directorate of Emergency Services

DFARS
Defense Federal Acquisition Regulation Supplement

DGC
Deputy Garrison Commander

DLRC
Directorate of Logistics Readiness Center

DoD
Department of Defense

DODI
Department of Defense Instruction

DPTMS
Directorate of Plans, Training, Mobilization and Security

DPW
Directorate of Public Works

DRAW
Deliberate Risk Assessment Worksheet

DRMO
Defense Reutilization and Marketing Office

EAP
Emergency Action Plans

ECOD
Estimated Cost of Damages

EESC
Executive Explosive Safety Council

EPCRA
Emergency Planning Community Right-to-Know Act

ERC
Experienced Riders Course

ESL
Explosive Site License

ESMP
Explosive Safety Management Program

ESSP
Explosive Safety Site Plan

ESWG
Explosive Safety Working Group

F
Fahrenheit

FAR
Federal Acquisition Regulations

FECA
Federal Employee Compensation Act

FKR
Fort Knox Regulation

FORSCOM
Forces Command

FPCON
Force Protection

FRP
Forward Rearming Point

GAAF
Godman Army Airfield

GC
Garrison Commander

GHS
Global Harmonizing System

GIS
Geographic Information System

GMV
Government Military Vehicle

GSM
Garrison Safety Manager

GSO
Garrison Safety Office

H
High Hazard

HAZCOM
Hazard Communication Program

HAZLOG
Hazard Log

HAZMAT
Hazardous Material

HERO
Hazards of Electromagnetic Radiation to Ordnance

HPV
Hepatitis B Virus

IAW
In Accordance With

IC
Incident Commander

IDLH
Immediately Dangerous to Life or Health

IH
Industrial Hygiene/Hygienist

IMCOM
Installation Management Command

IOC
Installation Operations Center

IRCC
Installation Radiation Control Committee

IRP
Installation Restoration Program

IRPD
Installation Respiratory Program Director

IRA
Installation Respiratory Specialist

IRSO
Installation Radiation Safety Officer

ISO
Installation Safety Office

JHA
Job Hazard Analysis

LH
Low Hazard

LAR
Logistics Assistance Representative

LEL
Lower Explosive Limit

LFL
Lower Flammable Limit

LPS
Lightning Protective System

LSO
Laser Safety Officer

MH
Moderate Hazard

MASA
Muldraugh Ammunition Storage Area

MEDCEN
Army Medical Center

MEDDAC
Army Medical Command

MICC
Mission and Installation Contracting Command

MMR
Military Munitions Rule

MRT
Motorcycle Refresher Training

MSF
Motorcycle Safety Foundation

MSRC
Military Sports Bike Rider Course

NCOER
Non-Commissioned Officer Evaluation Report

NEW
Net Explosive Weight (in lbs.)

NFPA
National Fire Prevention Agency

NOV
Notice of Violation

NRC
Nuclear Regulatory Commission

OB/OD
Open Burning/Open Detonation

OER
Officer Evaluation Report

OGA
Other Government Agencies

OH
Occupational Health

OHN
Occupational Health Nurse

OP
Observation Point

OPIM
Other Potentially Infectious Materiel

ORV
Off-Road Vehicle

OSHA
Occupational Safety and Health Act

PAO
Public Affairs Office

PC
Personal Computer

PCE/PPE
Protective Clothing and Equipment/Protective Personal Equipment

PES
Potential Explosive Site

PII
Personal Identifying Information

PM
Preventive Medicine

PMS
Preventive Medicine Services

POC
Point of Contact

POM
Privately Owned Motorcycle

POV
Privately Owned Vehicle

QASAS
Quality Assurance Specialist (Ammunition Surveillance)

QD
Quantity Distance

RAC
Risk Assessment Code

RAWLS
Rotating Amber Warning Lights

RPE
Respiratory Personal Equipment

SASOHI
Standard Army Safety and Occupation Health Inspection

SC
Senior Commander

SCBA
Self Contained Breathing Apparatus

SDS
Safety Data Sheet

SIR
Significant Incident Report

SME
Subject Matter Expert

SOH
Safety and Occupational Health

SOHAC
Safety and Occupational Health Advisory Committee

SOP
Standard Operating Procedure

STAM
State Ammunition Manager

URSO
Unit Radiation Safety Officer

USACC
US Army Cadet Command

USAG
US Army Garrison

USATCES
US Army Technical Center for Explosive Safety

UXO
Unexploded Ordnance

VDT
Visual Display Terminal