

**Virginia Defense Force  
Regulation 385–10-7**

**Safety**  
**Virginia Defense Force**  
**Safety Program**  
**Training Requirements**

**Headquarters  
Virginia Defense Force  
5001 Waller Road  
Richmond, VA 23230-2915  
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**Headquarters  
Virginia Defense Force  
George Washington Division  
Richmond, VA  
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## **Safety**

### **VDF Safety Program**

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**Summary.** This document is an adaptation of the Army Regulation 385-10, Army Safety Program, for use by the units of the Virginia Defense Force (VDF). This regulation provides guidance to commanders and other personnel in regards to the safety program in the Virginia Defense Force.

**Applicability.** This regulation applies to units of the VDF. During mobilization for state active duty, procedures in this publication can be modified to support policy changes as necessary.

**Suggested Improvements.** Users are invited to send comments and suggested improvements directly to Headquarters, Virginia Defense Force, George Washington Division, Division Safety Office, 5001 Waller Road, Richmond, Virginia 23230-2915.

**Distribution.** Distribution is intended for all VDF units down to, and including, company-level.

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## **Chapter 1**

### **Training Requirements**

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

This chapter establishes the training requirements for safety support during VDF operations and is intended to reduce losses or manpower and equipment to ensure VDF operational capabilities.

#### **1-2. Required safety training**

All VDF personnel will be provided CRM training in those areas needed for a safe and efficient execution of their task(s). This training shall specifically address:

- a. The PPE required.
- b. General safety requirements particular to the operation.
- c. Risk mitigation techniques and controls.
- d. Special safety requirements.
- e. Lessons learned from previous operations.
- f. Procedures for reporting and responding to accidents.
- g. Identification of all known and perceived hazards.

#### **1-3. Risk management in training**

Leaders and managers are responsible for integrating CRM into all VDF processes and operations. Safety and occupational health staffs will provide mishap risk management component of CRM training, tools, and other related assistance. Risk reduction through application of controls by training, procedures, cautions, and warnings help reduce accident probability.

#### **1-4. Training**

- a. VDF commanders and supervisors should attend the VDF Safety Course. This is to familiarize them with the program and to enable them to execute their safety and occupational health and CRM leadership responsibilities properly.
- b. Additional duty safety officers (ADSO) personnel also need to attend the VDF Safety Course.
  - (1) Training is to include command, local, and safety / occupational health requirements; evaluation and abatement of local hazards; local procedures for reporting and investigating allegations of reprisals; the recognition of local potential hazardous conditions and environment; identification and use of VDF and local required occupational safety and health standards; and other appropriate rules and regulations that will assist ADSOs in performing their duties.

#### **1-5. Educational material**

Safety education and promotional materials such as posters, technical publications, pamphlets, and related materials are proven cost effective safety awareness tools and, therefore, will be used whenever available. Sources of relevant materials may include sources such as the various DoD safety agencies, OSHA, Va. Department of Labor and Industry (VA DoLI), or locally produced materials.

**1-6. Specialized training requirements**

Radiation training. The training and experience of the RSO and the alternate RSO must be commensurate with the radiation program for which they will be responsible for.

**Appendix A**  
**References**

Section 1.  
Publications

ANSI (American National Standards Institute) Safety Code Z87.1, Occupational and Educational Personal Eye and Face Protection Devices.

AR 15-6, Procedures for Investigating Officers and Boards of Officers

AR 40-5, Preventive Medicine

AR 95-1, Flight Regulations

AR 95-30, Participation in a Military or Civil Aircraft Accident Safety Investigation.

AR 190-5, Motor Vehicle Traffic Supervision

Code of Federal Regulations (CFR) (<http://www.gogpoaccess.gov/cfr/index.html>)

10 CFR, Energy

29 CFR 1910.38, Emergency Action Plans

29 CFR 1910.39, Fire Prevention Plans

29 CFR 1910.120, Hazardous Waste Operations and Emergency Response (HAZWOPER)

29 CFR 1910.147, Control of Hazardous Energy (Lockout/Tag out)

29 CFR 1910.165, Employee Alarm Systems

29 CFR 1910, Subpart E, Means of Egress.

29 CFR 1910, Subpart H, Hazardous Materials

29 CFR 1910, Subpart I, Personal Protective Equipment

29 CFR 1910, Subpart L, Fire Protection

40 CFR, Protection of the Environment

42 CFR, Public Health

49 CFR, Transportation

DA Pam 385-1, Small Unit Safety Officer / NCO Guide

DA Pam 385-10, Army Safety Program

DA Pam 385-16, System Safety Management Guide

DA Pam 385-24, The Army Radiation Safety Program

DA Pam 385-30, Mishap Risk Management

DA Pam 385-40, Army Accident Investigations and Reporting

DA Pam, 385-63, Range Safety

DA Pam 385-90, Army Aviation Accident Prevention Program

FM 3-0, Operations (<http://www.apd.army.mil>)

FM 4-01.011, Unit Movement Operations

FM 5-0, The Operations Process

FM 5-19, Composite Risk Management (CRM)

FM 21-60, Visual Signals

FM 21-305, Manual for the Wheeled Vehicle Driver (<http://atiam.train.army.mil>)

FM 55-30, Army Motor Transport Units and Operations

HSPG (Highway Safety Program Guidelines) Number 1, 4, 8, and 20.  
(<http://www.nhtsa.gov/nhtsa/whatsup/tea21/tea21programs/>)

IATA (International Air Transport Association), Dangerous Goods Regulations, Restricted Articles Tariff 6-D. (<http://www.iata.org/index>)

ICAO (International Civil Aviation Organization) Web Site (<http://www.icao.int>)

Manual on Uniform Traffic Control Devices for Streets and Highways  
(<http://mutcd.fhwa.dot.gov>)

MIL STD 822D, System Safety (<http://assist.daps.dla.mil/quicksearch>)

MIL-STD-1180B(1), Safety Standards for Military Ground Vehicles  
(<http://assist.daps.dla.mil/quicksearch>)

NFPA (National Fire Prevention Association) 101, Life Safety Code.

NIMS (National Incident Management System) (<http://www.fema.gov>)

NRF (National Response Framework) (<http://www.fema.gov>)

Section 2.

Forms

OSHA Form 300, Log of Work-Related Injuries and Illnesses (<http://www.osha.gov>)

OSHA Form 300A, Summary of Work-Related Injuries and Illnesses (<http://www.osha.gov>)

VDF Accident Investigation Report Form

## **Glossary**

### **Section 1**

#### **Abbreviations**

ADSC – Additional Duty Safety Course

ADSO – Additional Duty Safety Officer (or NCO)

ANSI – American National Standards Institute

AR – Army Regulation

ARNG – Army National Guard

ASO – Aviation Safety Officer

ATV – All-terrain vehicle

BBP – Bloodborne pathogens

BBPECP – Bloodborne Pathogen Exposure Control Program

BBPP – Bloodborne Pathogen Program

CAI – Centralized accident investigation

CBRNE – Chemical, Biological, Radiological, Nuclear, and Explosives

CFR – Code of Federal Regulations

CG – Commanding General

CHEMTREC – Chemical Transportation Emergency Center

CONOPS – Continuity of operations

CORA – Certificate of Risk Acceptance

COTS – Commercial off-the-shelf

CPR – Cardio-pulmonary resuscitation

CPSC – Consumer Product Safety Commission

CPX – Command post exercise

CRM – Composite risk management

DA – Department of the Army

DA Pam – Department of the Army Pamphlet

DoD – Department of Defense

DoDD – Department of Defense Directive

DoDI – Department of Defense Instruction

DoLI – Virginia Department of Labor and Industry (i.e., State OSHA)

DOT – Department of Transportation

DRU – Direct reporting unit

DUI – Driving under the influence

ECP – Exposure control plan

EO – Executive Order

EPA – Environmental Protection Agency

FAA – Federal Aviation Administration

FM – Field Manual

FOIA – Freedom of Information Act

GFE – Government furnished equipment

GFP – Government furnished property

GOV – Government Owned Vehicle

HAZMAT – Hazardous Materials

HBV – Hepatitis B virus

HIV – Human immunodeficiency virus

HSPG – Highway Safety Program Guidelines

IAI – Installation-level accident investigation

IATA – International Air Transport Association

IACO – International Civil Aviation Organization

IN – Initial notification

JHA – Job hazard analysis

MIL-STD – Military Standard

MP – Military Police

MSDS – Material safety data sheet (see also SDS or safety data sheet)

MTF – Medical treatment facility

NARM – Naturally occurring / accelerator produced radioactive material.

NCO – Noncommissioned Officer

NFPA – National Fire Protection Association

NRC – Nuclear Regulatory Commission

NTSB – National Transportation Safety Board

OJT – On-the-job training

OSH – Occupational Safety and Health

OSHA – Occupational Safety and Health Administration

OSH Act – Occupational Safety and Health Act

PL – Public Law

POC – Point of Contact

POV – Privately Owned Vehicle

PPE – Personal Protective Equipment

RAC – Risk Assessment Code

RSO – Radiation Safety Officer

SDS – Safety data sheet (see also MSDS – MSDS being phased out by revision of OSHA Hazard Communications Standard)

SME – Subject matter expert

SOH – Safety and occupational health

SOP – Standing Operating Procedure or Standard Operating Procedure

SSMP – Safety System Management Plan

SSP – Strategic Safety Plan

SSRA – Safety System Risk Assessment

TDY – Temporary Duty Assignment

USACHPPM – U.S. Army Center for Health Promotion and Preventive Medicine

VC – Vehicle Commander

VDF – Virginia Defense Force

## Section 2

### Terms

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

**Accident-based risk management** – A component of CRM used to identify, evaluate, manage and prevent accidents to personnel, equipment, and the environment during peacetime and contingency operations due to safety and occupational health factors and other accident-based factors.

**Aircraft** – Flying machines, whether manned or unmanned, weight carrying structure for navigation of the air that is supported by the dynamic action of the air against its surfaces.

**Aircraft ground accident** – Injury or property damage accidents involving aircraft in which no intent for flight exists and the engine(s) is/are in operation.

**Annual basis or annually** – Annual basis or annually should be from the month of the current year to the same month of the following year. However, the time will not exceed 13 months.

**Audit** – A process of collecting information about an organization's safety and occupational health management system and making judgments about its adequacy and performance, identifying both the strengths and weaknesses of the safety and health program as implemented by the organization. To ensure that all necessary safety and health program elements are operating and that procedures are in place for thorough implementation. The aims of auditing should be to establish that: appropriate management arrangements are in place; an adequate CRM control system exists which both reflect the hazard profile of the organization and is properly implemented; and appropriate workplace precautions are in place.

**Barrier** – A permanent or temporary impediment to foot and/or vehicular traffic that personnel are prohibited to pass without approval from range control or other appropriate authority. A barrier may be a sentinel, wire fencing, gate, sign, or other access-limiting device.

**Command responsibility** – Commanders down the entire chain of command are responsible for the safety of their personnel.

**Commander** – An individual that lawfully exercises over subordinates by virtue of rank or assignment. This includes the authority and responsibility for effectively using available resources for planning the employment or, organizing, directing, coordinating and controlling forces for the accomplishment of assigned missions. This also includes responsibility for health, welfare, morale and discipline of assigned personnel in his or her "command."

**Competent authority** – An individual designated in command, responsible for the direction, coordination and control of personnel. The commander alone is responsible for everything his or her unit does or fails to do. They cannot delegate their responsibility or any part of it, although

they may delegate portions of their authority to competent individuals. An individual designated by the commander to address areas of primary interest within that individual's technical expertise.

**Composite risk** – Blends threat-based risks with accidental, hazard-based risks.

**Control** – Action taken to eliminate hazards or reduce their risk.

**Days away from work** – The actual or estimated number of days lost that the individual could not work, excluding the day of the injury / occupational illness. Count all calendar days including weekends and holidays.

**Double hearing protection** – Wearing ear plugs **AND** noise attenuating headsets.

**Educational** – Includes classroom training, excludes field settings such as field training exercises and maneuvers. Examples: Teach/instruct/brief/counsel student/audience activities.

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

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

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

**Establishment** – A single physical location where business is conducted or where services or operations are performed. Where distinctly separate activities are performed at a single physical location, each activity shall be treated as a separate establishment. Typically, an establishment refers to a field activity, regional office, area office, installation, or facility.

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

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

**Explosion** – A chemical reaction of any chemical compound or mechanical mixture that, when initiated, undergoes a very rapid combustion or decomposition, releasing large volumes of highly heated gases that exert pressure on the surrounding medium. Depending on the rate of energy release, an explosion can be categorized as a deflagration or a detonation.

**Extremely hazardous substances** – The EPA uses the term extremely hazardous substance for the chemicals that must be reported to the appropriate authorities of released above the threshold reporting quantity. Each substance has a threshold reporting quantity. The list of extremely

hazardous substances is identified in Title III of Superfund Amendments and Reauthorization Act (SARA) of 1986 (40 CFR 355).

**Facility** – An area within a building that provides appropriate protective barriers for persons working in the facility and the environment external to the facility and outside of the building.

**Federal OSHA official** – Investigator or compliance officer employed by, assigned to, or under contract to OSHA.

**Field operations** – Operations conducted outdoors or outside of man-made enclosures or structures. Short-term operations in storage structures are also considered as field operations.

**Firefighting** – Activities associated with developing or using firefighting skills.

**First aid** – First aid is defined as using a list of procedures that are all-inclusive and is not a recordable injury. If a procedure is not on the list, it is not considered first aid for recordkeeping purposes. The following are the procedures contained in the list:

- a. Using nonprescription medication at nonprescription strength. However, if an individual is provided prescription medications or nonprescription medications at prescription strength, this is considered medical treatment.
- b. Tetanus immunizations.
- c. Cleaning, flushing, or soaking surface wounds.
- d. Wound coverings, butterfly bandages, Steri-Strips. The use of wound closure methods such as sutures, medical glues, or staples is considered medical treatment.
- e. Hot or cold therapy regardless of how many times it is used.
- f. Nonrigid means of support.
- g. Temporary immobilization device(s) used to transport accident victims.
- h. Drilling of fingernail or toenail; draining fluid from blister.
- i. Eye patches.
- j. Removing foreign bodies from eye using irrigation or cotton swab. However, use of other methods to remove materials from the eye is medical treatment.
- k. Removing splinters or foreign material(s) from areas other than the eye by irrigation, tweezers, cotton swabs, or other simple means.
- l. Finger guards.
- m. Massages. Massage therapy is first aid, but physical therapy or chiropractic treatment is considered medical treatment.
- n. Drinking fluids for relief of heat stress. (Drinking fluids for relief of heat stress is first aid, but administering an IV is medical treatment.)

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

**Flight mission** – Flight or series of flights (sorties), conducted to accomplish a specific task or series of tasks in support of the unit's approved mission statement. Each mission is assigned to a designated pilot-in-command (PC) and/or air mission commander.

**Foreign object damage (FOD)** – Damage to VDF vehicle/equipment/property as a result of objects alien to the vehicle/equipment damaged. Excludes aircraft turbine engines defined as a FOD incident.

**Ground accident** – Any accident exclusive of aviation (flight / flight-related / aircraft-ground).

**Hazard** – Any actual or potential condition that can cause injury, illness, or death of personnel or damage to or loss of equipment, property, or mission degradation or a condition or activity with potential to cause damage, loss, or mission degradation.

**Hazard analysis** – A hazard analysis is a clear, systemic, concise, well defined, orderly, consistent, closed-loop, quantitative or qualitative and objective methodology used to identify possible hazards within a mission, system, equipment, or process that can cause losses to the mission, equipment, process, personnel, or damage to the environment. Examples of hazard analyses are: What-If, Preliminary Hazard Analysis, Sneak Circuit Analysis, Hazard and Operability Study, Fault Tree Analysis, Failure Mode and Effects Analysis, and Fault Hazard Analysis.

**Hazardous chemical** – OSHA uses the term hazardous chemical to denote any chemical that would be a risk to individuals if exposed in the workplace. Hazardous chemicals cover a broader group of chemicals than the other chemical lists.

**Hazardous wastes** – The EPA uses the term hazardous wastes for chemicals that are regulated under the Resource Conservation and Recovery Act (RCRA) (42 USC 6901). Hazardous wastes in transportation is regulated by DOT (49 CFR 170 through 49 CFR 179).

**Hazard class** – The United Nations Organization hazardous classification system, which contains 9 hazard classes, is used by the DOT for dangerous materials to identify the hazardous characteristics of the material(s).

**Hazardous materials (HAZMAT)** – Definitions are:

- a. “Hazardous material” means any material that has been designated as hazardous under 49 USC 5101 to 49 USC 5127 and is required to be placarded under 49 CFR 172, Subpart F or any quantity of material listed as a select agent or toxin in 42 CFR 73.
- b. Substances that have hazardous characteristics such as flammable, corrosive, reactive, toxic, radioactive, poisonous, carcinogenic or infectious, having properties capable of producing adverse effects on the health and safety or the environment of a human being. Legal definitions are found in individual regulations.
- c. Any substance of material involved in an accident and released in sufficient quantities, poses a risk to people’s health, safety, and/or property. These substances and materials include explosives, radioactive materials, flammable liquids or solids, combustible liquids or solids, poisons, oxidizers, toxins, and corrosive materials (Federal Emergency Management Agency definition).
- d. The DOT uses the term hazardous materials which covers 8 hazard classes, some of which have subcategories called classifications and a ninth class covering other regulated materials. The DOT includes in its regulations hazardous substances and

hazardous wastes as other regulated materials-E (ORM-E), both of which are regulated by the EPA, if their inherent properties would not otherwise be covered.

**Hazardous Substances** – Two form of definitions:

- a. The EPA uses the term hazardous substance for the chemicals that, if released into the environment above a certain amount, must be reported and depending on the threat to the environment, Federal involvement in handling the incident can be authorized. A list of the hazardous substances is published in 40 CFR 302, Table 302.4.
- b. OSHA uses the term hazardous substance in 29 CFR 1910.120, which resulted from Title I of SARA and covers emergency response. OSHA uses the term differently than the EPA. Hazardous substances, as used by OSHA, cover every chemical regulated by both DOT and EPA.

**Health hazard** – An existing or likely condition, inherent to the operation, maintenance, storage or disposal or materiel or a facility, that can cause death, injury, acute or chronic illness, disability, or reduced job performance.

**Health hazard assessment** – The application of biomedical and psychological knowledge and principles to identify, evaluate, and control the risk to the health and effectiveness of personnel.

**Hospitalization** – Admission to a hospital as an in-patient for medical treatment.

**Human error** – Human performance that deviated from that required by the operational standards or situation. Human error in accidents can be attributed to a system inadequacy / root cause in training, standard, leader, individual, or support failure.

**Human factors** – Human interactions (man, machine, and/or environment) in a sequence of events that were influenced by, or the lack of human activity, which resulted or could result in an accident.

**Imminent danger** – Conditions or practices in any workplace that pose a danger that reasonably could be expected to cause death or severe physical hardship before the imminence of such danger could be eliminated through normal procedures.

**Independent evaluation** – The process used by the independent evaluators to independently determine if the system satisfies the approval requirements. It will render an assessment of data from all sources, simulation and modeling, and an engineering or operational analysis to evaluate the adequacy and capability of the system.

**Individual risk** – Risk to a single exposed person.

**Inherent hazard** – An existing or permanent hazard (i.e., high voltage).

**Injury** – A traumatic wound or other condition of the body caused by external force, including stress or strain. The injury is identifiable as to time and place of occurrence and member or

function of the body affected, and is caused by a specific event, incident, or series of events within a single day or work shift.

**Inspection** – Comprehensive survey of all or part of a workplace in order to detect safety and health hazards. Inspections are normally performed during regular work hours or the organization, except as special circumstances may require. It is also the process of determining compliance with safety and health standards through formal and informal surveys of workplaces, operations, and facilities.

**Intent for flight** – Intent for flight begins when power is applied or brakes released to move the aircraft under its own power, for the purpose of commencing authorized flight with an authorized crew. Intent for flight ends when the aircraft is at a full stop and power is completely reduced. Intent for flight is the physical act of applying power to move the aircraft, not the thought process of the crew member as to what is going to occur in the future.

**Investigation** – A systematic study of an accident, incident, injury, or occupational illness circumstance.

**Job transfer** – When personnel are assigned to a job other than their regular job for part of the day as a result of an injury or occupational illness.

**Laser** – A device capable of producing a narrow beam of intense light (LASER = light amplification by stimulated emission of radiation).

**Life cycle** – The life of a system from conception to disposal.

**Maintenance / repair / servicing** – Activities associated with the maintenance, repair or servicing of equipment or other property. Excludes janitorial, housekeeping, or grounds-keeping activities.

**Medical treatment** – Medical treatment is the management and care of a patient to combat disease or disorder. It does not include:

- a. Visits to a physician or licensed health care professional solely for observation or counseling.
- b. Diagnostic procedures.
- c. First aid.

**Mishap risk management** – A component of CRM used to identify, evaluate, and prevent accidents to personnel, equipment, and the environment during peacetime and contingency operations due to safety and occupational health factors, design and construction of equipment, and other mishap factors.

**Mission** – Flight or series of flights (sorties), conducted to accomplish a specific task or series of tasks in support of the unit's approved mission statement. Each mission is assigned to a designated pilot in command and/or air mission commander.

**Motorcycle** – Powered two- and three-wheeled vehicles, including mopeds and motorbikes.

**Near miss** – A potentially serious accident or incident that could have resulted in personnel injury, death, or property damage, damage to the environment and/or illness, but did not occur due to one or more factors.

**Non-DoD component** – Any entity (government, private, or corporate) that is not a part of DoD.

**Note** – Additional information provided to expand understanding of the subject and to call attention to areas of interest.

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

**Occupational illness** – Non-traumatic physiological harm or loss of capacity produced by systemic infection; continued or repeated stress or strain; for example, exposure to toxins, poisons, fumes; or other continued and repeated exposures to conditions of the work environment over a long period of time. Includes any abnormal physical or psychological condition or disorder resulting from an injury caused by long- or short-term exposure to chemical, biological, or physical agents associated with an occupational environment. For practical purposes, an occupational illness is any reported condition that does not meet the definition of an injury.

**Occupational injury** – A wound or other condition of the body caused by external force, including stress or strain. The injury is identifiable as to time and place of the occurrence and a member or function of the body affected, and is caused by a specific event, incident, or series of events or incidents within a single day or work shift.

**Office** – Activities associated with the performance of clerical, typing, and administrative type duties. Excludes supervisory activities. Examples: Typing / work processing, filing / posting, telephoning, operating office machines.

**Off-duty** – VDF personnel are off-duty when they:

- a. When they are not in an on-duty status, whether on or off a VDF facility or military installation.
- b. Have departed official duty station or temporary duty station at termination of normal work schedule. (**NOTE:** For VDF personnel, this normally includes the one-way travel period to and from the individual's home of record and the duty location. It does not include travel time for multiple-day events other than the initial travel to and the final travel from the duty location.)
- c. Are participating in voluntary and/or installation team sports.
- d. Are on lunch or other rest break engaged in activities unrelated to eating and resting.

**On-duty** – VDF personnel are considered on-duty, for the purposes of accidents, when they are:

- a. Physically present at any location where they are to perform their officially assigned work. (This includes those activities incident to normal work activities such as lunch,

- coffee, or rest breaks. This does not include non-work related activities (e.g., working on a personal vehicle during work hours).
- b. Being transported by VDF owned or contracted vehicles for the purpose of performing officially assigned work. This would include initial travel to and from a drill or TDY location in a POV, but not daily transportation to or from a work location.
  - c. Participating in compulsory physical training activities or other organization events.

**Operational control** – Operational control is the authority to perform those functions of command over subordinate forces involving organizing and employing command and forces, assigning tasks, designating objectives, and giving authoritative direction necessary to accomplish the mission. Operational control includes authoritative direction over all aspects of military operations and Joint training necessary to accomplish missions assigned to the command. It does not, in and of itself, include authoritative direction for logistics or matters of administration, discipline, internal organization, or unit training.

**Operating vehicle** – Activities associated with operating vehicle under power. Examples: Driving, convoying / road marching, towing / pushing, mowing, hauling / transporting, driver testing, flying.

**Over-the-road** – Operation or driving on paved roads / highways.

**Permanent partial disability** – Any injury or occupational illness that does not result in death or permanent total disability, but in the opinion of competent medical authority, results in the loss or permanent impairment of any part of the body, with the following exceptions:

- a. Loss of teeth.
- b. Loss of fingernails or toenails.
- c. Loss of tip of fingers or toes without bone involvement.
- d. Inguinal hernia, if it is repaired.
- e. Disfigurement or sprains or strains that do not cause permanent limitation of motion.

**Permanent total disability** – Any nonfatal injury or occupational illness that, in the opinion of competent medical authority, permanently and totally incapacitates a person to the extent that he or she cannot follow any gainful employment. (The loss of, or the loss of use of, both hands, feet, eyes, or any combination thereof as a result of a single accident will be considered as permanent total disability.)

**Physical training** – Body conditioning or confidence building activities. Examples: Confidence courses, marches, running / jogging, physical training test.

**Probability** – Probability is the qualitative or quantitative likelihood of a particular event or sequence of actions initiated by a hazard-related Cause resulting in a Maximum Credible Loss. The Probability can be expressed as the product of the Incident Rate and Mishap Set Likelihood.

**Qualified safety and health personnel** – Includes personnel who have been primarily engaged in safety and occupational health specialties in the military or civilian occupations, have

documented training within these areas (i.e., associates, bachelors, and/or masters degrees), and/or are qualified under the civil service classifications for safety, medical, occupational health, or industrial hygiene.

**Recommendations** – Those actions advocated to the command to correct system inadequacies that caused, contributed, could cause or contribute to a VDF accident. Also referred to in this regulation as corrective action, remedial measures and/or countermeasures.

**Recordable accident** – Reportable accident that meets the minimum criteria stated in the regulation for aviation and ground Class A-D accidents.

**Reportable accident** – All occurrences that cause injury, occupational illness, or property damage of any kind must be reported to the local safety office and to the VDF, G.W. Division Safety Office.

**Residual hazards** – Hazards that are not eliminated by design.

**Residual significant risk** – Any risk remaining in a system after corrective actions have been executed.

**Residual risk** – The levels of risk remaining after controls have been identified and countermeasures selected for hazards that may result in the loss of effectiveness. Risks remaining after hazard mitigation measures have been applied.

**Restricted work activity** – Individual's injury is such that they are unable to perform their normal duties (e.g., light duty).

**Risk** – Risk is directly related to the ignorance or uncertainty of the consequences of any proposed action. Risk is an expression of possible loss in terms of hazard severity and hazard probability. Risk is the expected value of loss associated with a loss caused by a hazard expressed in dollars. The risk associated with this loss is mathematically derived by multiplying the probability of the loss's likelihood by the probable dollar loss associated with the loss's severity. Note that risk has two dimensions – likelihood and magnitude, while a hazard has only one – varied magnitude.

**Risk acceptability** – Risk acceptability is that level of risk which has been determined as tolerable in order to fulfill mission requirements. It represents a level of risk where either the output of resources to rectify safety deficiencies does not result in a proportional increase in the level of safety to be provided; or so restricts the performance that the assigned mission cannot be executed.

**Risk acceptance** – Risk acceptance is a formal and documented process indicating that leadership understands the hazard, its associated cause, and the probable consequences to mission, personnel, equipment, public and/or the environment and that they have determined that the total risk is acceptable because of mission execution.

**Risk acceptance level** – Used to denote the level of risk a particular level of leadership may accept. These levels are based on the magnitude of the risk involved and the duration of the risk acceptance.

**Risk assessment** – An evaluation of a risk in terms of loss should a hazard result in an accident and against the benefits to be gained from accepting the risk.

**Risk decision** – The decision to accept or not accept the risk(s) associated with an action; made by the commander, leader, or individual responsible for performing the action and having the appropriate resources to control or eliminate the risk's associated hazard.

**Safety** – Freedom from those conditions that can cause death, injury, occupational illness, or damage to, or loss of, equipment or property.

**Safety objectives** – Criteria for comparing and judging measures for adequacy. Safety objectives incorporate the safest measures consistent with operational requirements.

**Security / law enforcement** – Activities associated with MP or other personnel performing security or law enforcement rescue duties. Examples: Traffic safety guarding / patrolling, controlling disturbances.

**Severity** – A qualitative or quantitative assessment of the degree of injury, occupational illness, property, facility, or environmental damage associated with a maximum credible loss. Severity is dependent only on the Maximum Credible Loss. Once established for a Maximum Credible Loss, it does not change. Only the probability of a Maximum Credible Loss can be reduced.

**Significant Risk** – A risk associated with a particular hazard where the hazard likelihood of occurrence and its potential impact on the mission, person, equipment, or facility is such that it can be reasonably expected to cause bodily harm, damage to equipment, or the facility, or delay in the execution of the mission unless corrected. Normally, they are assigned a RAC of 1, 2, or 3.

**Single-hazard risk** – Risk associated with a single hazard of the system.

**Single hearing protection** – Wearing either ear plugs or noise attenuating headsets.

**Special hazards areas** – Areas identified containing hazards which due to their nature could not be eliminated through design selection and therefore depend upon training, procedures, and PPE for control of the hazards to tolerable levels. Examples: Kitchens, machine shops, areas around conveyor belts, hazardous chemical storage areas, etc.

**Standards failure** – Standards / procedures not clear or practical, or do not exist.

**State OSHA official** – Investigator or compliance officer employed by, assigned to, or under contract to state OSHA / Commonwealth of Virginia Department of Labor and Industry.

**Supervisory** – Activities associated with the management of personnel.

**Support failure** – Inadequate equipment / facilities / services in type, design, availability, or condition, or insufficient number / type of personnel, which influenced human error, resulting in a VDF accident.

**System** – A composite, at any level of complexity, of trained personnel, procedures, materials, tools, equipment, facilities, and software. The elements of this composite entity are used together in the intended operational or support environment to perform a given task or achieve a specific production, support, or mission requirement.

**System inadequacy** – A tangible or intangible element that did not operate to standards, resulting in human error or materiel failure. Also referred to as causes, readiness shortcomings, and/or root causes.

**System safety** – The application of engineering and management principles, criteria, and techniques to optimize safety within the constraints of operational effectiveness, time, and cost throughout all phases of systems', equipment's, or facilities' life cycle.

**System safety lesson learned** – A collection of real or potential safety or health-related problems based on data analysis or experience that can be applied to future and current systems to prevent similar recurrences.

**System safety management** – An element of management that defines the system safety program requirements and ensures the planning, implementation, and accomplishment of system safety tasks and activities consistent with the overall program requirements.

**System safety management plan (SSMP)** – A management plan that defines the system safety program requirements of the VDF or Government. It ensures the planning, implementation, and accomplishment of system safety tasks and activities consistent with the overall program requirements.

**Tolerable risk** – The level of risk associated with a specific hazard below which a hazard does not warrant any expenditure or resources to mitigate. From a legal standpoint it would be considered as a “de minimus” risk, from the Latin phrase “de minimus noncurat lex,” meaning “the law does not concern itself with trifles.”

**Training-related death** – A death associated with a non-combat type exercise or training activity that is designed to develop an individual's physical ability or to maintain or increase individual / collective skills, and is due to either an accident or the result of natural causes occurring during or within one hour after any training activity where the exercise or activity could be a contributing factor. This does not apply to individuals participating in personal wellness or exercise programs.

**VDF accident** – A VDF accident is defined as an unplanned event, or series of events, which results in one or more of the following:

- a. Occupational illness to VDF personnel.

- b. Injury to on-duty VDF personnel.
- c. Damage to VDF property.
- d. Damage to public or private property, and/or injury or accident to non-VDF personnel caused by VDF operations (i.e., the VDF had a causal or contributing role in the accident).

**VDF property** – Any item of VDF property, or property leased by the VDF for which the VDF has assumed risk of loss, such as aircraft, vehicle, building, structure, system, etc.

**VDF Vehicle** – Any vehicle that is owned, leased, or rented by the Virginia Defense Force. A vehicle that is primarily designed for over-the-road operation. A vehicle whose general purpose is the transportation of cargo or personnel. Examples are passenger cars, station wagons, trucks, ambulances, and buses.

**Workplace** – A place (whether or not within or forming a part of a building, structure, or vehicle) where any person is to work, is working, for the time being works, or customarily works, for gain or reward; and in relation to an employee, includes a place, or part of a place, under the control of the employer.

**Work-related injuries** – Injuries or occupational illnesses incurred while performing duties in an on-duty status.