

CHAPTER TEN

SAFETY RESPONSIBILITIES

10-1. COMMANDER

The unit commander is responsible for the unit safety program. Safety awareness and safe operating practices must be included in all aspects of unit operations.

10-2. CHAIN OF COMMAND

The chain of command must know the unit safety program and special safety requirements for various maintenance operations. Daily contact with workers allows supervisors to see working conditions and detect hazards. Direct and forceful action must be taken to correct unsafe conditions. Supervisors must be alert when new or unusual maintenance operations are being conducted since the possibility for an accident is increased.

10-3. INDIVIDUAL

Individuals must know and practice the special safety needs of their jobs. They must recognize the fact that the unsafe acts of others create needless hazards that should be corrected on the spot or reported to the chain of command. Active involvement and safety awareness on the part of all individuals is vital to accident prevention.

10-4. UNIT SAFETY PROGRAM

An effective unit safety program is necessary for mission completion. A maintenance mission cannot be considered a success if it involved death or injury

or damage to equipment or buildings. AR 385-10 and DA Pam 385-1 outline the basic requirements for a unit safety program. Higher headquarters may give added guidance. Commanders must expand on these requirements to fully cover the safety needs of their particular operations.

10-5. STANDING OPERATING PROCEDURES

The unit safety program should be part of the unit SOP. The program should be reviewed and updated as required.

10-6. UNIT SAFETY OFFICER

A unit safety officer supervises and coordinates activities related to unit safety, keeps the commander informed, and suggests improvements to the unit program.

10-7. UNIT SAFETY COUNCIL

The commander must organize a unit safety council consisting of members of the chain of command. They meet at set times or as required to discuss better safety practices, reduction of mishaps, removal of hazards, and safety training where applicable.

10-8. SUPERVISOR MEETINGS

Supervisors must include safety in their plans and talks of daily maintenance operations. Regular safety meetings should be held in the work area. They serve to review and critique performance, draw out ideas on improving the safety program, and publicize new

or changed safety procedures. This type of meeting is notably useful prior to unit safety council meetings since it serves as a source of information and ideas which may have wider use.

10-9. FACT FINDING

When an accident occurs, it is important to get the right details for reports and possible corrective action. The following facts should be obtained in each accident:

- Name of personnel injured, identification of equipment or buildings damaged.
- Time and place of injury or damage.
- Severity and cost of injury or accident.
- Nature of the injury or accident.
- How and why of the accident.

Additional information is needed for accident prevention purposes and should include data on the unsafe act, if any, and the reason for doing it. Any mechanical or physical hazard should be named. If a tool or piece of equipment was a factor, it should be determined if the proper tool or piece of equipment was being used, if it was being used properly, and if it was defective.

10-10. CORRECTIVE ACTION

Corrective action should be based on specific facts about the accident. Near accidents should also be reported so that existing hazards and unsafe methods or conditions can be corrected. Any method or condition that threatens safety should be reported so that corrective action can be taken. If the same people are often in accidents, remedial training on accident prevention should be given and work assigned where they are less likely to be a danger to themselves or others,

10-11. ACCIDENT REPORTING

The unit safety program must set clear and specific methods for accident reporting. All accidents are reportable, however, only those accidents where death, lost-time injury, or property damage in excess of \$700 are recordable. Accidents must be reported IAW AR 350-40 and local rules and directives.

10-12. EQUIPMENT OPERATOR SELECTION, TRAINING, TESTING, AND LICENSING

The unit safety program must be closely tied with equipment operator selection and training. The operator is the main cause of accidents involving equipment. Accident studies usually show that the operator did not use correct methods or was not fit to operate the equipment. The commander must strive to have an effective equipment operator qualification program and strongly enforce correct operation of equipment. As many people as possible should be trained to operate vehicles; materials handling equipment; generators; space, immersion, and duct-type heaters; and other equipment. This permits safe operation in an emergency when the assigned operator is not there. AR 600-55 contains data about motor vehicle driver selection, testing, and licensing.

10-13. SAFETY HAZARDS AND PRECAUTIONS

Maintenance operations present many hazards to maintenance personnel and others in the area. The best defense against a disabling or costly accident is knowing the safety hazards associated with each maintenance operation and using proper safeguards. The following paragraphs address the more common hazards associated with maintenance operations and some of the safeguards to be taken.

10-14. QUALITY CONTROL

The maintenance activity must ensure that equipment is safe to operate when it is returned to the user. Technical inspectors should give special attention to safety related items when doing the final inspection.

10-15. FIRE PREVENTION

This hazard should be a separate unit program. AR 420-90 outlines the details for a unit fire prevention program.

NO SMOKING signs should be posted wherever fire hazards exist. Smoking should be permitted only in approved areas. Gasoline, oil, paint, and other flammables should be stored only in approved locations and in special containers. Containers should be safety color-coded and labelled. Oxygen and acetylene bottles must be stored away from each other and from other flammables. Use of approved solvents and cleaning materials, proper containers, and good airflow in these areas will reduce the chance of fire. High pressure bottles must be securely chained to a nonmovable object.

Field operations during cold weather present an added fire hazard from heating devices. Heating devices must be in good working condition, use approved fuel, and be operated by qualified licensed people. Unit SOP should specify fireguards for tents to include having the proper fire extinguishers on hand when heating devices are in use,

Fire extinguishers and water and sand containers should be available in all maintenance areas. All personnel must be familiar with the location and operation of firefighting equipment. Frequent inspections must be made to ensure the equipment is serviceable and operable.

10-16. EQUIPMENT OPERATION

Equipment operators must know their equipment's operational limits. They must also know and abide by any special safety considerations peculiar to their equipment and obey the local traffic rules. The following cautions should be observed when working with or around equipment and vehicles:

- Ground guides must be used when moving tracked or large wheeled vehicles and equipment in the maintenance area.
- Cranes and conveyors must have controls to reduce the chance of injury or damage and should never be moved without a ground guide.
- Wrecker and recovery vehicle crews must be alert to possible accidents during recovery and lifting operations. Personnel must stand clear of equipment during recovery operations. The danger area extends to twice the length of the payed-out cable.
- Depending on the situation and circumstances, personnel should not ride in towed vehicles.
- Exercise care when operating top-heavy vehicles such as fuel tankers or when towing fuel pods.
- Slow down on slopes and rough roads.
- Never allow radio antennas to meet high tension wires.
- Always fasten tracked vehicle hatches.
- Always wear protective headgear when riding in tracked vehicles.

10-17. TRAFFIC

Any moving equipment must be regarded as a safety hazard. Vehicular traffic within maintenance areas must be controlled by speed limits and if possible by one-way flow. Other types of moving equipment, such as cranes, bulldozers, and forklifts, must have added safety controls (such as boom, blade, and fork position) set to reduce possible injury to personnel and damage to equipment.

10-18. MOVING HAZARDOUS MATERIALS

When moving hazardous materials or recovering/evacuating equipment carrying hazardous materials, special attention must be given to correct operation of the vehicle and adherence to proper markings and other safety precautions.

10-19. SPECIAL CLOTHING AND EQUIPMENT

Personnel must be familiar with the location, use, care, and inspection of special clothing or equipment they may be required to use (for example, welding mask, goggles, respirators, safety shoes, aprons, gloves, and so forth). When a job requires the use of such clothing and equipment, their use must be strictly enforced by the platoon leader or section chief. Personnel should never weld or watch welding without welding goggles or helmets. Lathe or grinding machine operators should never work without wearing goggles. Personnel working in noise-hazardous areas should never work without wearing proper hearing protection devices.

10-20. EXPLOSIVES SAFETY

Every military unit will have some type of explosives within its area of operation, such as grenades, flares, demolition items, and fuels. Proper storage facilities and limited access to these items are required. These items must be removed from retrograde materiel and vehicles entering maintenance shops.

10-21. WEAPONS SAFETY

Since some unit missions require soldiers to have their weapons loaded, commanders should establish clearing points outside the maintenance area. Prior to vehicles or weapons entering maintenance areas, all weapons should be cleared and checked to preclude accidental firing. A box or barrel filled with sand or dirt should be provided near all troop billet areas, maintenance areas, and arms storage areas into which weapons may be discharged.

10-22. NOISE SAFETY

Noise is a hazard to the physical and mental abilities of all personnel. Constant high noise levels, either in frequency or volume, have a degrading effect on personnel efficiency. Ear damage can result from loud, sharp noises such as artillery fire and high frequency chatter from machine operations. Protection from noise should be a safety consideration in all maintenance operations.

10-23. HORSEPLAY

PLATOON SERGEANTS AND SECTION CHIEFS SHOULD NOT ALLOW HORSEPLAY OR PRACTICAL JOKES AT ANY TIME; ANY SUCH ACTIONS WITHIN MAINTENANCE AREAS ARE GROUNDS FOR DISCIPLINARY ACTION.

Many accidents are the result of horseplay and practical jokes. All personnel should be told that maintenance areas are for hard work only. Platoon sergeants and section chiefs should not allow horseplay or practical jokes at any time; any such actions within maintenance areas are grounds for disciplinary action.

10-24. LASER BEAM

A laser beam is extremely dangerous to eyesight. Avoid all eye contact with a laser beam. Wear protective goggles when in an area that a laser beam is being used. Give warning when a laser beam is being used and do not point laser at personnel.

10-25. CARBON MONOXIDE

Carbon monoxide is deadly. Engines should never be operated inside buildings unless there is either good ventilation or hoses are used to carry exhaust fumes to the outside. Similar safeguards should be observed when using all stoves and heaters whether they are operated by liquid fuel, gas, coal, or wood.

10-26. CHEMICAL FLUIDS

Certain chemical fluids such as ammonia, battery acid, and cleaning compounds may present a hazard to people and equipment. These items must be properly stored in an area away from other items.

10-27. ELECTRICAL SAFETY

Electrical hazards, such as heat, shock, spark, and high frequency, must be considered. All electrical equipment must be properly grounded when used. Personnel should never wear rings, dog tags, bracelets, or watches when working near electrical devices.

10-28. RADIATION SAFETY

Radioactivity, either from nuclear weapons or peaceful use of radiation, must be monitored. Per-

sonnel must use dosimeters when required, Calibration of equipment must be current. Any item that emits radiation must be properly marked and stored.

10-29. LIFTING DEVICES

The capacity of lifting devices should never be exceeded. When appropriate, blocks or jackstands should be used to protect personnel working under equipment which is suspended by a lifting device. All lifting devices such as hoists, lifts, and booms, must be load tested and properly marked with maximum lift capacity.

10-30. TOOLS

Tools must be used for their intended purpose and be properly maintained. Use of the wrong tool for the job may result in injury to the user or damage to the tool and/or equipment. Lubricating prevents rust and corrosion. Keeping edges dressed or sharpened decreases risk of injury and increases work quality.

10-31. MISSION ORIENTED PROTECTIVE POSTURE

Working in MOPP 3 and 4 reduces visibility and increases fatigue and the potential for accidents. Safety must be stressed when doing maintenance operations in MO PP.

10-32. ARMED WEAPONS SYSTEMS

Recovery and evacuation crews should know how to disarm weapon systems. When in doubt, help should be obtained from the using unit or explosive ordnance disposal (EOD).

10-33. BOOBY TRAPS/CONTAMINATION

Abandoned equipment may be booby trapped or contaminated. Help may be obtained from the supporting EOD or chemical company.

10-34. SANITATION/HYGIENE

Inadequate sanitation facilities and poor personal hygiene increase danger from disease. Commanders must insist on high standards of cleanliness. Commanders should organize a field sanitation team and ensure, as a minimum, that the team leader is formally trained.

10-35. FOOD AND WATER

Food and water should be obtained from approved sources. If water from nonapproved sources must be used, it should be treated before use.

10-36. SHOP CLEANLINESS

Maintenance areas must be kept clean and orderly. Supervisors must ensure immediate clean up of oil spills, proper storage for used cleaning rags, control of bad components, proper tool maintenance, and dust control. Besides a clean-as-you-go policy, a scheduled **15** to **30** minute cleanup period should be established for each shift.

10-37. PAINTING

Painting should be done in a well-ventilated area, and the same safeguards as those for use of other flammables should be observed. Personnel engaged in spray painting must wear respirators.

10-38. SAFETY COLOR CODE MARKINGS AND SIGNS

AR 385-30 states need for safety color code markings of certain vehicles, shop areas, and signs.