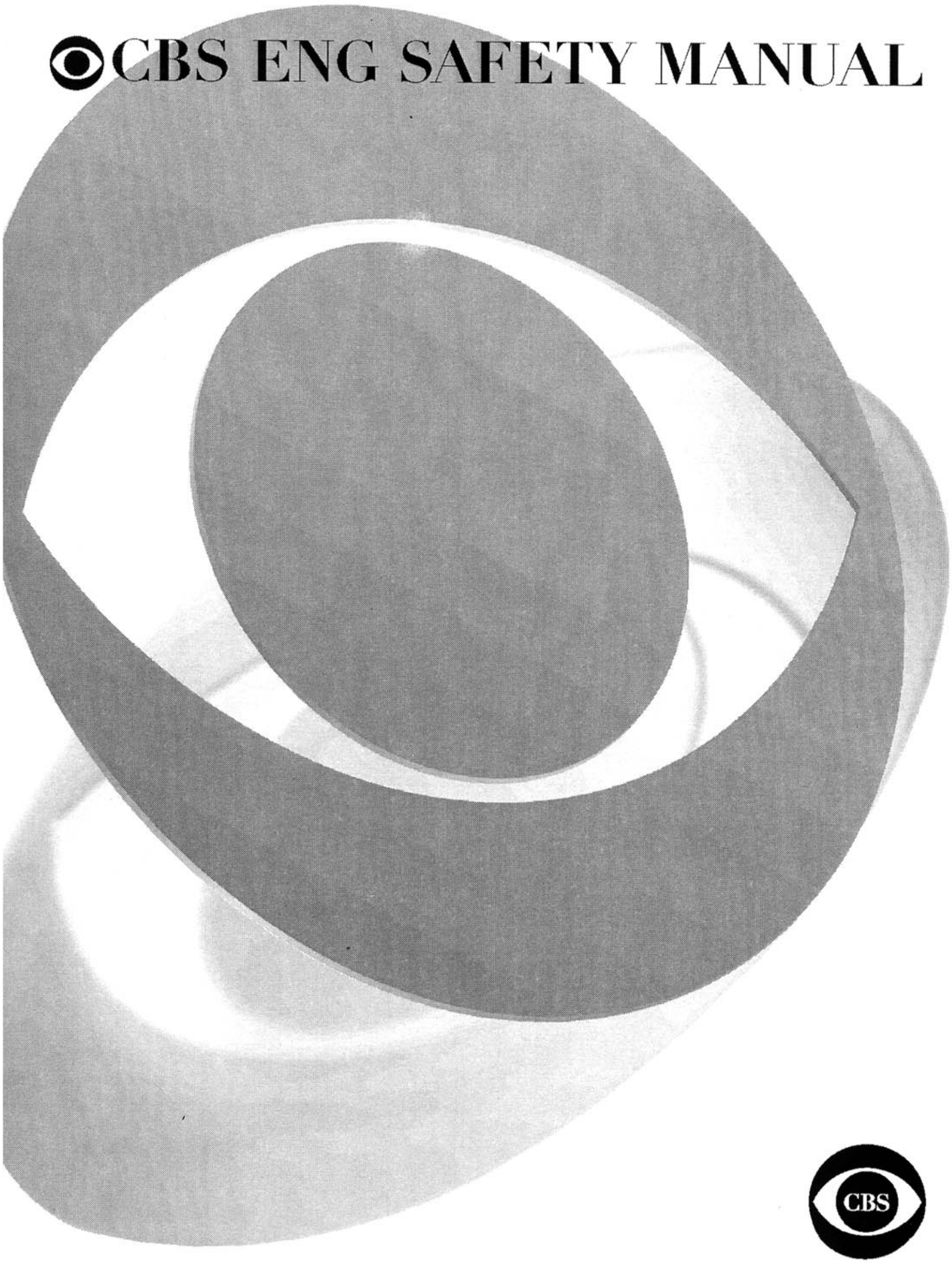
CBS ENG SAFETY MANUAL



CBS ENG SAFETY MANUAL
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GENERAL SAFETY INFORMATION

INTRODUCTION

CBS/Viacom believes in the dignity and importance of the individual employee and his or her right to derive personal satisfaction from the job. The prevention of occupational injuries and illness is of such consequence to this belief, that it will be given top priority at all times. Our policy is that no assignment is so important, and no deadline is so crucial, that we cannot take the time and initiative to do the job safely.

This commitment to safety is an integral part of successful job performance. Quality and efficiency cannot be maintained without your good health and safety. Our safety program is designed to maintain a high degree of excellence through adherence to safety rules, regulations, and policies wherever possible.

EMPLOYEE SAFETY GUIDELINES

This safety policy must be considered as a minimum standard. It cannot cover every situation. The need will always exist for common sense and good judgment to protect yourself and others around you from injuries.

MANAGEMENT RESPONSIBILITIES

-Supervising a safe and healthful work environment.
-Supervising an accident prevention program.
-Supervising a training and education program.
-Supervising new employee orientation on company's safety program and the investigation and reporting of serious injuries.
-Supervising the reporting of multiple hospitalization accidents or fatalities to OSHA within eight hours.
-Maintaining a record keeping system for occupational injury and illness (OSHA Form 200).
-Performing self-inspections (audits) to identify and eliminate hazards.
-Providing first aid/CPR training (1910.151).
-Providing necessary safety equipment to all employees.
-Ongoing Safety and Health committee.

EMPLOYEE RESPONSIBILITIES

-Follow established safety procedures and rules of conduct.
-Coordinate and cooperate with all other employees in an attempt to eliminate accidents.
-Study and learn all safe practices governing their work using this manual as a reference.
-Offer safety suggestions which may contribute to a safer work environment.
-Apply the principles of accident prevention in their daily work and use proper safety devices and protective equipment as required by management.
-Report to their supervisor each individual injury or occupational illness, regardless of degree of severity.
-Properly care for all protective equipment.
-Use protective equipment properly.
-Maintain their workplace in safe condition.
-Maintain equipment in good condition and ready for use at all times.
-Attend safety meetings and offer constructive suggestions regarding safety issues at your workplace.
-Report all safety and equipment problems to their management supervisor.

ELECTRONIC NEWS GATHERING VEHICLE SAFETY GUIDE

INTRODUCTION

This Electronic News Gathering Vehicle Safety Guide has been developed by the CBS/Viacom Corporate Law and Environmental Affairs Department in conjunction with various operating units at CBS/Viacom to help our locations promote safe use procedures when using vehicles in Electronic News Gathering (ENG) and Electronic Field Production (EFP). Vehicle safety relative to ENG and EFP involves establishing safety procedures to identify and reduce potential hazards involved in setting-up, broadcasting, and breaking down the live shot.

Personal safety has always been a concern to CBS/Viacom , and while state-of-the-art ENG can be exciting, it can also be deadly….for the news persons involved. Since its inception, the live ENG van has proven to be one of television's most valuable news gathering tools and also its most dangerous. Throughout the years, vans, antennas and masts have been destroyed through accidents that resulted from carelessness of operators, lack of safety equipment, failure of safety equipment, rushing the clock, and poor training. It is with this reference in mind that this safety guide has been formulated to provide better safety procedures and training for ENG and EFP van operators.

The Guide addresses ENG-EFP safety issues, which are common to all news gathering vans within CBS/Viacom. It is intended to cover the safety issues from driving the van, setting up for a live shot, and breaking down the shot. The guidelines are somewhat flexible, while attempting to retain definite procedures for the safety protection of the news persons involved.

The job of ENG news gathering is compounded by the fact that quite often the news event takes the operator and the equipment to less than ideal broadcasting conditions. Power lines are often obscured by darkness, tree limbs, or the glare of sunlight. Uneven ground presents a hazardous potential as it causes the mast to lean in unexpected angles, which magnify the deflection of the mast at the highest range, and faulty electric cables used in wet weather offer lethal risks. Heavy rains, floods, winds, lightning, smoke, fire, toxic gases, hazardous assignments (crowd control), tornadoes, hurricanes, toxic fumes from fires, or chemical leaks… all contribute to the overall dangers the ENG news person potentially faces. Adding together all of the above-mentioned hazards, along with the daily race to cover the news "first," presents high risk potential that can only be addressed by increasing the knowledge of the known hazards and how to spot the unknown hazards.

This Electronic News Gathering Vehicle Safety Guide has been developed to aid the operators and occupants of the van in acquiring the necessary knowledge to safely perform this ENG magic. A special training program will enhance this guide. The entire program will provide the expertise to enable you to earn an ENG Van Operator's Safety Certificate. The ENG Safety Certification Program is being designed to increase Safety Awareness through an in-depth study of the aspects of ENG vans and related equipment.

I. Personal Safety for News Personnel

A. SAFETY ALWAYS COMES FIRST-EVEN BEFORE THE NEWS STORY

The safety of all personnel is our foremost concern. ENG equipment is here to stay in the broadcasting industry, so we must do all we can to learn how to use it safely and effectively.

It is the primary responsibility of the ENG operator to learn the safety hazards that are inherent while using ENG equipment, trucks, and cars and to consistently be watchful for the many potential hazards.

While this guide covers some operational issues, the main focus is to raise the level of safety awareness for all personnel involved in the operation of ENG/EFP. The guide addresses the hazards the professional needs to look for that may be hidden and unknown and learn safe operating procedures.

II. Vehicle Safety-ENG and EFP

A. FREQUENT VEHICLE CHECK

Perform a safety check of the vehicle (car or microwave van) and ensure that it is in good operating condition. This check should be done periodically (weekly) and will include a visual inspection of headlights, turning signals, brake lights, tail lights, tires, oil and fuel levels, two-way radio, cellular phones, audible back-up alarms, microwave mast warnings, brakes, horn, side mirrors, and rear view mirrors.

In addition to the above, the following items should also be checked on a weekly basis:

1. Verify that the generator exhaust pipe is not damaged or otherwise pushed back under the body of the vehicle.
2. Restock the First Aid Kit.
3. Check oil level in the generator engine.
4. Check oil level in the truck engine. Note any fluid leaks in the engine compartment and underneath the engine on ground and report them to the ENG supervisor/maintenance department.
5. Check the fuel level in both tanks of the truck. Some generators are fed from the rear tank only and cannot be switched. Newer model trucks have only one fuel tank.
6. Walk completely around the vehicle and note any loose trim, body damage, tire pressure and condition, mirror position and anything else that would make the van unsafe or undrivable.

7. Inspect the mast and antenna for unusual appearances such as broken elements, dents in mast sections, debris on elements, or loose connections on mast equipment.
8. Test the radio on all channels and adjust squelch for greatest sensitivity. If a portable cell phone is assigned to the truck, verify that it is there.
9. Test the generator by cranking and performing proper power turn-on procedure. Operate all essential equipment before leaving the parking lot and note any malfunctions.
10. Inspect all video, audio, and power cables for damage and repair and replace as necessary.
11. Check the operation of all lights, including flood, work, warning, and interior. Check the turn signals and brake lights as well.

B. KNOW YOUR ASSIGNMENT AND JOB FUNCTIONS

Each employee in the van should have specific job assignments. They must be properly qualified and trained to perform their assigned duties. Under no circumstance should an employee be required to perform duties for which they lack the proper knowledge and training. In some cases, additional employees may need to be assigned in order to ensure the safety of those involved in a live shot or other assignment. Each employee must understand what role they are expected to perform in the event of an emergency. A list of procedures should be available for situations such as medical emergencies; the van coming in contact with an overhead power line; and a fire in the van. Under no circumstances should an untrained employee be left alone, in or around the van to perform technical functions or power-related functions.

C. DRIVING THE MICROWAVE TRUCKS/VAN

When you are ready to drive to the live site, you must remember that a microwave van handles differently than a car.

1. The van is heavier due to size, equipment on board, and extra fuel.
2. A van's stopping distance is greater (especially on wet, slick roads) than a car.
3. Vans also have a much higher center of gravity, making them less stable when turning than the average car.
4. You must constantly be aware of the roof-mounted equipment and the antenna you carry on the van. Know the height of the ENG truck. The vehicle height should be prominently displayed on the dashboard area, for quick and easy reference by the driver.
5. As you approach the news live site in the van, begin to look at the terrain.

BE SURE TO LOOK LONG AND HARD FOR POWER LINES AND OTHER OBSTRUCTIONS THAT COULD BE NEAR A RISING MAST.

D. BEFORE RAISING THE MAST LOOK UP AND LIVE

The operation of an ENG unit with an extendible mast can present life threatening hazards if all precautions are not taken by the operator. Contact by the mast or antenna with power lines can kill or injure the operator, photographers operating cameras attached to the unit, support personnel, and bystanders.

It is the responsibility of the operator of the vehicle to see that all appropriate safety practices are observed and that any attempt to circumvent those practices is reported immediately.

Unless otherwise directed, the driver of the vehicle is designated as the operator of the unit.

BEFORE RAISING THE MAST

The ENG vehicle must be parked in an appropriate location for safe mast operation. As the primary risk is power lines, if the nature of a utility line is not known, then it shall be assumed to be a power line.

IT IS NOT SAFE TO BE PARKED

Where there are power lines overhead.

Next to the curb adjacent to utility poles carrying power lines.

Where power lines come within fifteen (15) feet of any portion of the mast and antenna, in any direction (see Figure).

On uneven ground where the vehicle is not reasonably level.

Where the mast will not be completely visible as it is extended.

Where the ENG unit is a traffic hazard.

When operating in the dark, the operator must verify that the mast flood light is operating before beginning to extend the mast. During overcast, dark shadow, and twilight, the mast floodlight must be operating before extending the mast.

For those vehicles equipped with stabilizing/leveling jacks, the jacks should never be used for propping up the van, in an effort to keep the mast away from overhead wires. The vehicle should never be parked in a location where jack failure could cause the mast to make contact with the overhead wires.

The vehicle should never be parked with half the vehicle on a curb, where a few inches of accidental movement could knock the vehicle off the curb and place the mast into the overhead wires.

LOOK UP AND LIVE

Always remember to look above your vehicle for power lines and other obstructions. Tree branches can hide power lines from view, so always be on the lookout.

PRECAUTIONS TO USE WHEN PARKED ON THE SAME SIDE AS POWER LINES

Walk completely around the van, checking for overhead power lines or any other obstructions. Position yourself directly under any power lines that may exist where the vehicle is parked. Pace off a minimum distance of 10 feet from the power lines, adding a few more feet if it's windy or you have parked on a slope and, if necessary, relocate the van to be at a minimum of 10 feet from the power lines. .
When parking the van on a city street, the normal contour may have a slope of 5 degrees. Be aware that for every 5 degrees of slope, approximately five feet needs to be added to the minimum distance from the power lines. The minimum distance allowed between the elevated mast and the power lines is 15 feet. As the slope increases, so does the minimum distance.

Power lines can be difficult to spot when working at night----look for power poles and other signs to indicate the existence of power. Be sure to use all available flood, work, warning, and interior lights.

PARKED ON THE OTHER SIDE AWAY FROM POWER LINES

In some circumstances, the safest position, or maybe the only location available, is across the street from the event to be shot live. Setting up may involve crew members carrying equipment across a busy roadway. All employees exposed to vehicular traffic are to wear reflective vests or other reflective garments during this transfer of equipment. If parking the van interferes with the normal traffic flow, additional warning triangles or cones must be in place.

THE PERSONNEL IN THE FIELD, SUCH AS THE PHOTOGRAPHER, ENGINEER, OR VAN OPERATOR, HAVE THE ULTIMATE RESPONSIBILITY AND AUTHORITY TO DECIDE WHETHER OR NOT CONDITIONS ARE SAFE ENOUGH TO RAISE THE MAST.

RAISING THE MASTUSING ELECTRONIC DETECTION SYSTEMS

Raising the mast into high-voltage power lines presents one of the most hazardous potentials in broadcasting. While training is one of the most important aspects of preventing accidents, warning detection systems have been developed to help reduce accidents when working near high-voltage power lines.

The automatic warning system is designed to alert operators when they come too close to a power line. The automatic warning system is activated at engine startup or by a power switch associated with raising the mast. Mounted at the top of the mast, the system warns the crew if they are in the vicinity of a power line, or other type of physical obstruction. An audible alarm will sound, and the upward travel of the telescoping mast will be automatically stopped. In the event the warning system stops the upward mast travel, the operator should immediately assess the factors that are causing the system to shut down upward movement. Even though the operator may have initially missed the potential hazard when he looked up, or if he got distracted as the mast was being raised, the warning proximity system will prevent a potentially fatal accident.

The warning systems are NOT meant to replace operator training and education. The operator should never get complacent and never assume the system will substitute for safety training, skill, and common sense.

E. OTHER HAZARDS

Advanced planning is very important in minimizing risks to employees and equipment during adverse weather conditions. Consideration should be given as to whether the live shot is necessary for reporting the news versus being the news.

Weather Conditions

THUNDERSTORMS/LIGHTNING/HEAVY RAIN/FLOODS

The mast on an ENG unit, when raised, is a lightning attractor. Lightning is just as hazardous as power lines.

Many times heavy rain is accompanied by lightning. Heavy rain alone, however, can cause substantial safety hazards. The rain can make it difficult to see the overhead power lines, similar to working at night or in foggy conditions. The rain can also increase the potential of a shock or electrocution hazard from the cables and wiring, as well as the mast coming too close to power lines.

LIGHTNING

If the vehicle is equipped with an onboard lightning detector, make sure the audible alarm is turned ON after parking the vehicle. Follow the manufacturers guidelines regarding testing for false triggers. Monitor progress of any

approaching storms. If lighting is detected at the three-mile range, lower the mast and shut down operation until the threat of lighting has passed. If there is no lightning detector, follow the procedure below.

According to the National Lightning Safety Institute, for every five seconds time from a lightning strike's flash to the accompanying thunder ("boom"), lightning is one mile away. Thus, if it takes ten seconds between the flash and boom the lightning is 2 miles away; a flash to boom of 15 seconds means lightning is three miles away.

At the count of fifteen, or 3 miles, go immediately into SHUTDOWN of electronics and seek shelter.

Resume work when the thunderstorm passes and you observe flash to boom of 15 seconds in the opposite direction.

IMMINENT DANGER

If, in spite of the above-listed safety procedures, your mast is fully extended and lightning strikes nearby, exiting the van is not necessarily your safest option. In most instances, you will be safer by remaining in your vehicle than in exiting and trying to find cover. Photographers and reporters, however, should quickly disconnect themselves from any cables attached to the vehicle. Because of this very dangerous situation, you should attempt to lower the mast while remaining inside the vehicle. This is the only time it would permissible. If the decision is made to exit the vehicle, caution should be exercised as the ground may be energized from the lightning strike.

IF YOUR HAIR STANDS ON END AND/OR YOU FEEL TINGLING SENSATIONS, YOU ARE IN LIGHTNING'S ELECTRIC FIELD. IMMEDIATELY REMOVE ALL METAL OBJECTS AND CROUCH DOWN WITH FEET, HANDS, AND KNEES TOGETHER(SOURCE: NATIONAL LIGHTNING SAFETY INSTITUTE)

LIGHTNING SAFETY IS THE RESPONSIBILITY OF THE VEHICLE OPERATOR. YOUR JUDGMENT WILL BE RESPECTED.

HIGH WINDS/GUSTS

Extra care and caution must be exercised during periods of high winds. The mast should not be extended to its highest elevation when wind speeds are expected to exceed 30 MILES PER HOUR. Consider mast movement by high winds when positioning your truck for the live shot.

ICE AND SNOW

Ice and snow can cause multiple problems; in fact, during a snow and ice storm, visibility when raising the mast can be severely hampered. Ice can build up on a mast, making it extremely difficult to raise or lower. Scheduled preventative maintenance and lubrication is critical to the smooth movement of the mast sections even in dry weather conditions. In addition, consider carrying a container of De-Icer to assist in freeing the mast. Climbing on the roof of the van and physically pulling on the mast sections should be the final choice due to sudden collapse of the telescoping mast which could potentially injure the individual.

CARBON MONOXIDE

Another serious threat to ENG van occupants is carbon monoxide poisoning. You should avoid running the van and/or the generator in a confined area that will not allow exhaust fumes to escape easily. This is especially important when the van windows are closed and the heater and/or air conditioner are being used. Death from high concentration over prolonged period of time can result from carbon monoxide poisoning. If headaches, dizziness, drowsiness, nausea, or vomiting occurs, get away from the van, into fresh air, and seek medical treatment immediately. Each van should be equipped with a digital readout carbon monoxide detector. Any indication of parts per million of the carbon monoxide detector should be investigated as the source of exposure.

MEDICAL ASSISTANCE

Each vehicle should be equipped with the Emergency Relief System or similar first aid kit. Always call for assistance (911) as soon as possible after any medical emergency occurs.

FIRE

Each vehicle should be equipped with a small **ABC TYPE**, portable fire extinguisher. It should only be used on small fires. In the event of a large fire, exit the vehicle immediately and call 911. Each individual expect to use a portable fire extinguisher should be trained in the proper techniques in its use. This paragraph needs additional research for a safety manual.

ELECTRICAL HAZARDS

Never use a faulty AC power cable. Replace damaged or faulty power cable immediately.

Only heavy-duty “SO” rated extension cords with a ground conductor may be used. Flat appliance-type extension cords are unsafe for workplace applications and must not be used.

Extension cords must be approved and suitable for conditions of use.

Wet conditions offer additional hazards for the ENG operator. The integrity of cables and power cords is important to prevent electrocution.

F. WHAT THE POWER INDUSTRY SAYS

The following safety information from the electric power industry concerns contact with power lines. If by some misfortune your mast does come in contact with a power line, following these procedures can save your life!!!

STAY CALM- STAY AWAY

If the vehicle you’re operating contacts a power line, don’t panic.

Warn others not to touch you or the vehicle!!

Stay where you are unless you are in danger from a fire or from being struck by a loose power line. You will be safe from electrical shock as long as you don’t become a pathway for the current to flow to the ground.

If you are already in the vehicle, and the vehicle is operable, try to lower the mast away from the power line if you can. Driving away with the mast entangled in the power lines should not be considered unless it is the last and safest alternative. Driving the entwined vehicle risks pulling the power lines down and possibly endangering vehicle occupants and the general public.

If you must get out of a vehicle while it is in contact with a power line, JUMP as far away as you can. Land with both feet together. No part of your body should touch the vehicle and the ground at the same time. Once you are out of the vehicle remember that the ground may be energized. HOP away from the vehicle, keeping both feet together. This will prevent you from becoming a conductor between two areas of the ground which are charged differently.

(An alternative method of traveling over energized ground, advocated by other power companies, is to shuffle, keeping both feet on the ground at all times! Check with the power company in your area and follow their guidelines.)

Once you are clear, don’t return to the vehicle until a power company representative tells you it is safe to do so.

If you are nearby when a vehicle contacts a power line, stay away and warn others to stay away. The best thing you can do to help anyone in the vehicle is to make sure someone calls 911 immediately.

Don't add to the problem by rushing over and attempting to rescue someone, doing so may place you in danger also . If you touch someone whose body is conducting current, your body will become another link in a deadly chain.

DOWNED LINES CAN BE DEADLY

If you see a downed power line, stay away! Do not touch it or attempt to move it.

Don't assume the power company already knows about it. Call 911 immediately. The sooner the power company knows about the problem, the quicker they can respond.

BASIC SAFETY RULES

Electrical lines can cause serious injury or death.

Keep all people, tools, and equipment at least 15 feet from all overhead lines.

Overhead lines are not insulated. They should not be touched. Some lines have a weather covering and appear to be insulated, but they are not.

Stay away from electrical devices such as meters, transformers, and substations.

NIGHT TIME WORK PROCEDURES

When your live shot takes place at night, certain additional safety procedures should be followed. You should always wear a reflective vest or other reflective outer clothing, so that you are clearly visible to vehicular traffic when working in and around the van. Before raising the mast, use a high-power portable lantern to search above the van for any signs of power lines, trees, or other obstructions. Remember that power lines can run through trees, and may be difficult to spot. If your vehicle is parked in any way that impedes normal vehicular or pedestrian traffic, be sure to use reflective traffic cones, triangles, light sticks or strobe lights to clearly illuminate the potentially dangerous condition.

G. BREAKING DOWN THE LIVE SHOT

When your live shot is complete and the studio has given you a clear or good-night, your tear down process should be the same as when you set-up your live shot. SAFETY FIRST.

Your first concern is to safely break down the live shot. Safely gather up your equipment in whatever order you deem proper to minimize risks and hazards.

Live shot locations and situations like bad weather, high winds, and lightning may dictate a different priority in the tear down process. Before disconnecting AC power cords and signal cables from the van, switch power breakers inside truck to the off position. This will reduce the possibility of an electric shock or electrocution from AC power cords plugged outside of the truck. After all equipment is secured in the van (camera, tripod, monitors, and other equipment), your next step is to lower the mast.

LOOK UP AND LIVE

AGAIN, LOOK ABOVE AND AROUND THE TRUCK AND BE CERTAIN THAT NO POWER LINES ARE WITHIN REACH OF THE MAST OR ANTENNA. AT NIGHT, A BLACK POWER LINE AGAINST A BLACK SKY WILL NOT BE SEEN.

The entire crew should be outside of the van when the mast is being raised, lowered, or rotated, to be able to spot overhead hazards. Make certain that the mast is properly seated and locked into position before driving off.

H. MAST PROBLEMS

You have now completed the tear down process and are ready to roll . If the mast will not retract, you may have one of these problems.

1. Mechanical valve problem
2. Weather related (frozen mast)
3. Mast leaning at too acute angle
4. Dirt and road salt on the mast

If you find the van will not start or will start in park but dies when placed into the drive gear, you may be experiencing a problem with the mast interlock system. The truck is designed to have a safety mast warning system which can cause various problems.

NEVER ATTEMPT TO DRIVE THE TRUCK WITH THE MAST IN THE UP POSITION!

If the mast will not retract for mechanical reasons- dirt, faulty release valve, broken seals/sleeves—call for assistance. DO NOT MOVE THE TRUCK.

I. VIDEO TAPE PRESENTATIONS

A. Dangers from above
B. Safety is good news

C. Look Up and Live

Video tape presentations should be viewed on a regular basis to heighten safety awareness or whenever there is a change in job assignments, a change in vehicles, or a near-miss incident occurs.

ERGONOMICS

INTRODUCTION

Musculoskeletal disorders, also known as cumulative trauma disorders (CTDs), repetitive trauma disorders, repetitive strain injuries (RSIs), repeated motion disorders, or overuse syndromes, are illnesses, injuries, or diseases that affect one or more parts of the musculoskeletal system. CTDs. include sprains, strains, inflammation, degeneration, tears, pinched nerves or blood vessels, bone splintering, and stress fractures.

There are some risks factors that increase the chance of work-related CTDs. These include forcefulness, task repetitiveness, awkward posture, static loading or sustained exertions, mechanical contact stress, extreme temperatures, hand-arm vibration and so on.

As much as seventy percent (70%) of all worker compensation claims in a company can be directly attributed to CTDs.

HAZARD PREVENTION AND CONTROL

Perhaps the most important part of a ergonomics program is the active process of eliminating or reducing the risk of injury by changing the things that contribute to the risk factors.

PERSONAL PROTECTIVE EQUIPMENT

Personal protective equipment is the last line of defense from workplace hazards. First choice is to use engineering control or administrative controls to eliminate or reduce the hazard. It is important for all employees to be knowledgeable about the selection, use, care and limitations of personal protective equipment.

- Personal protective equipment must be worn when a hazard requiring its use is present. This includes but is not limited to bullet-proof vests, gas masks, riot gear.

- Each location should evaluate its needs.

- Hazard assessment should be conducted on a regular basis (at least once a year) and/or as news warrants.

- When required, personal protective equipment must be suitable for the hazard and the work to be performed.

It is imperative for employees to be equipped with proper weather related gear such as Gortex rain gear, boots, gloves, etc. for snow and rain.

WORK ZONE PROTECTION

- When working in public roads, employees must wear high visibility clothing or vests.

- Employees must place suitable barricades to protect the public from hazardous work sites.

American National Standard for High-Visibility Safety Apparel Exhibit next two pages.

PERSONAL PROTECTIVE EQUIPMENT

Applicable OSHA Regulations

Occupational Safety and Health Administration (OSHA) *General Industry Standards* applicable to this section include, but may not be limited to:

* 29 CFR 1910.132 General Requirements

* 29 CFR 1910.133 Eye and Face Protection

* 29 CFR 1910.134 Respiratory Protection

* 29 CFR 1910.135 Head Protection

* 29 CFR 1910.136 Foot Protection

* 29 CFR 1910.137 Electrical Protective Devices

* 29 CFR 1910.138 Hand Protection

FALL PROTECTION

DEFINITION:

A fall is defined as an accidental loss of balance that permits an uncontrolled drop from one level to another. Slips, which are falls on the same level, are equally dangerous, and good housekeeping can minimize slips.

Falls are the leading cause of occupational fatalities. Thus, fall protection violations rank number one (#1) in OSHA's list of most frequently cited standards. Fall protection means allowing no exposure to fall hazards without protection.

FALL PROTECTION WORK PLAN

Roles and Responsibilities

Each administrator should help the supervisors to take measures to ensure that employees are not exposed to occupational fall hazards. These measures include but are not limited to:

- Ensuring that materials and debris are kept in an orderly manner and are not likely to become tripping hazards or falling objects.
- Instructing his or her employees on the specific details of all areas in their work place that require fall protection.
- Promote a good program to insure that the walking and working surfaces are clear and uncluttered.
- Describing in detail the correct assembly/disassembly, maintenance and inspection of each fall protection system required to be used by the employee.
- Describing in detail the correct procedures for the handling, storage, and securing of any fall restraint systems necessary for their job in the fall protection area.

EMPLOYEE

Personal protection equipment is a device or system that when used properly will either prevent you from falling or stop your fall. Each employee has the ability to protect himself or herself by adhering to the following general rules and taking precautions when there is a fall hazard:

- Before using any kind of personal fall protection equipment, ensure that you have received instruction on how to use it properly.
- Always inspect your fall protection system before each use to ensure that it is not flawed, worn out, or in any condition which could diminish the system's effectiveness. Look specifically for signs of wear, damage, and other deterioration.
- Remove any defective components on fall protection systems immediately from service to ensure that they are not accidentally used by other employees.

GUARDRAILS

Guardrails must meet or exceed the following minimum specifications:

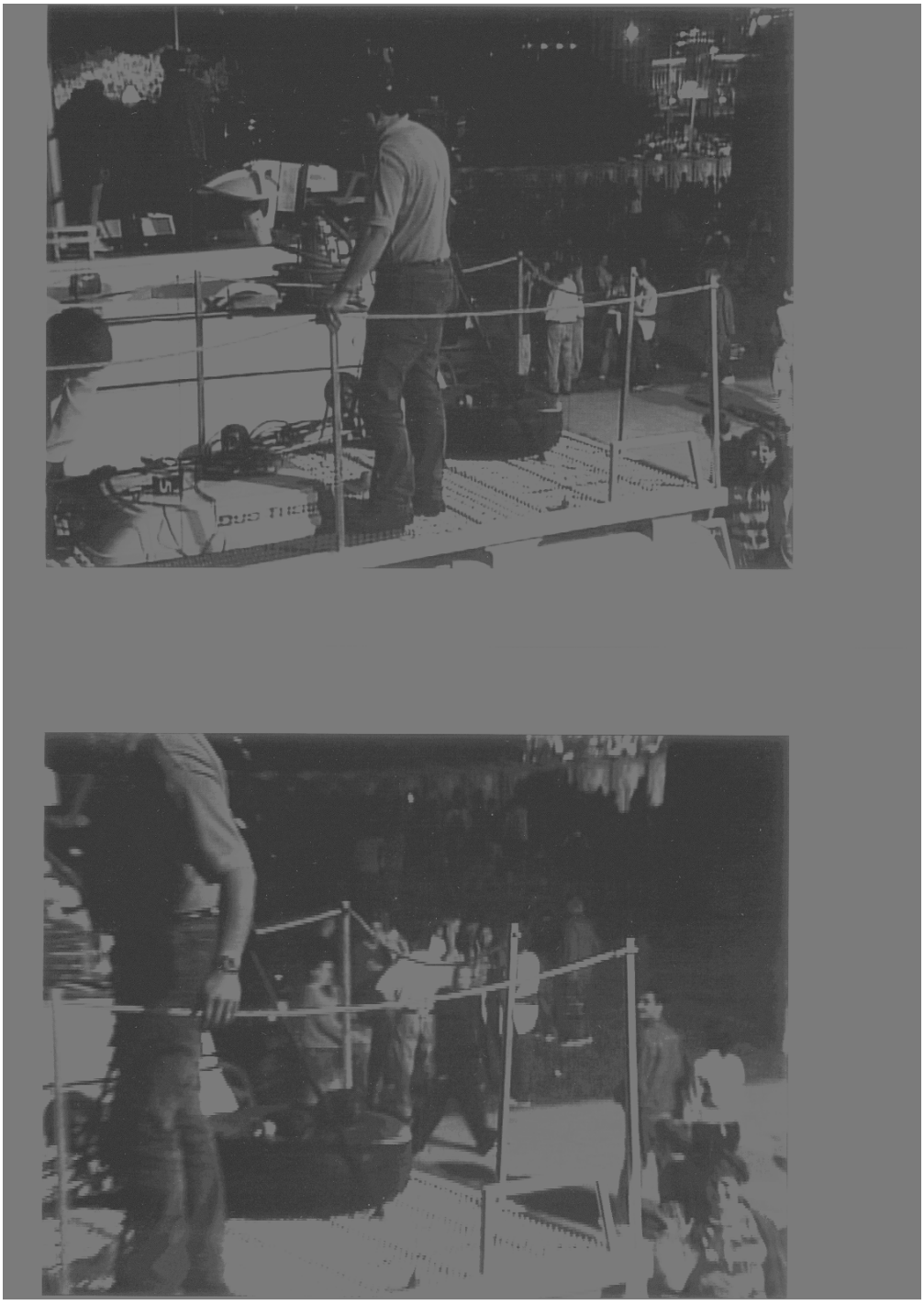
Type of Material	Size of top/mid Rail (in)	Height (in) top rails	Post size (in)/ spacing (in)	Strength (LBS)
Wire/rope	3/8"	42"	2x2 3/8 angle/8'	200

1. Acceptable heights range from 39" to 45". Mid rail height should be about _ of top rail.
2. Spacing is horizontal distance measured center post to center post.
3. Railing must have a minimum deflection in any direction 200 lb. force is applied. Minimum deflection is not defined although 3" of deflection for wire rope after force is applied as a guideline. Strength criteria also applies to all structural members of the system including post anchorage's.
4. There is no present OSHA National Office guidance at this time for the size of wire rope guardrails. 3/8" is a recommended size, however, and wire rope size 1/4" or larger (as per NPRM for Subpart M) would be acceptable.

   Source: U.S Department of Labor, Occupational Safety and Health Administration, February 1993; The 100 most frequently cited OSHA Construction Standards in 1991: A guide for the abatement of the Top 25 Associated Physical Hazards.

This exhibit of a fall arrest system as seen on this ENG vehicle may help solve this fall hazard. While this may help prevent a hazard, standards of OHSA and ANSI may not be met by this guardrail/ post system.

This picture was taken as of July 3, 2000 at a Chicago 4th of July event.



ACCIDENT/INJURY REPORTING

PROCEDURES FOR PERSONAL INJURY AND ACCIDENTS

If you or another company employee are involved in an accident or are injured on the job, use the following procedures.

MINOR INJURIES

Fill out the Accident Report Forms. Obtain the forms from the human resource office. A company representative , will conduct an informal investigation of the accident before the end of the next day and will complete their report.

SERIOUS INJURIES

In all cases of injury serious enough to require medical treatment or hospitalization, someone else must drive the injured person to the medical facility

In all cases of injury, the injured person (or someone on his or her behalf) must hand deliver all preliminary reports to management or its representative within 24 hours, or contact management by telephone or other appropriate communication tools immediately after the injury, with the forms following as soon as possible. The safety coordinator is responsible for notifying Worker's Compensation of the injury and performing a formal investigation. Copies of the reports will be forwarded to the safety committee chair by the injured person (or someone on his or her behalf), with additional copies kept in both the administration files and the individual's personnel file.

All accidents resulting in immediate or probable fatality of one person or multiple hospitalizations must be reported to the nearest OSHA office within 8 hours. This report shall be made orally with a follow up written report to the department. The report must relate to the department all details of the accident, including but not limited to:

- The circumstances of the accident
- The number of fatalities
- Extent of any injuries

VEHICLE ACCIDENTS

If you are involved in an accident while driving a company motor vehicle or personal vehicle on company business, use the following procedures:

- Call the police, sheriff, or state patrol after an accident which involves serious personal injury or extensive property damage.
- Notify your immediate supervisor by telephone or other appropriate communication means as soon as possible after the accident.
- Fill out a "Drivers Accident Report" and/or all other reports required by your location and forward it to the department manager for review and filing with a 24 hour period.
- If the total damage to a vehicle or other property exceeds $500.00, in most states you must file a "State Motor Vehicle Collision Report" with a state patrol officer or sheriff. Forward copies of this report to the safety coordinator. The safety coordinator shall then forward it to the appropriate state motor vehicle or law enforcement agency for appropriate documentary actions.
- If you are uninjured, document the situation. If possible, videotape the surroundings including the condition of the people and vehicles.

WORK ZONE PROTECTION

When working in public roads, employees must place suitable traffic control devices in accordance with *Part VI of the Manual on Uniform Traffic Control Devices (MUTCD) Standards and Guides for Traffic Controls for Street and Highway Construction, Maintenance, Utility and Incident Management Operation, United States Department of Transportation, Federal Highway Administration.*

*NOTE: Next two pages---------TRAFFIC CONTROLS FOR STREET AND HIGHWAY CONSTRUCTION, MAINTENANCE, UTILITY AND EMERGENCY OPERATIONS ILLINOIS CODE. IL.-89(c) Rev. 5 (6C-3 Cone Design)

***(NOTE- EACH LOCATION NEEDS TO PROVIDE PROPER CODE)**

ENG/FIELD EMERGENCIES
INSTRUCTIONS FOR REPORTING 911

Contact emergency assistance by calling 911 (or emergency number).

Be prepared to provide the following information to the emergency operator:

- Your name and location.
- Phone number from which the call if being made
- Location of the emergency, including facility name and address.
- Type of emergency:
  - Fire
  - Medical
  - Confined space rescue.
  - Hazardous material.
  - Criminal act.
  - Bomb threat.

OTHER IMPORTANT INFORMATION

- Number and condition of victims
- Location and extent of fire.
- Involvement of hazardous materials (as available Communicate product name and/or describe any markings, labels or placards).

KEEP THE LINE OPEN, DO NOT HANG UP!!!!!!!
KEEP INFORMATION FLOWING

While making the call, ask someone to direct emergency response vehicles to the scene of the emergency.

MEDICAL EMERGENCIES

Evaluate your personal safety first. Survey the area/scene.

Ask for help, call out to others REQUEST ASSISTANCE

Call 911

Provide aid and comfort in accordance with your training and ability while observing general precautions.

FIRES

Beginning Stage Fire

Alert other employees. Depending on the situation get help and/or call 911.

If fire is electrical, turn power source off. **Be careful of electrocution.**

Extinguish fire with suitable fire extinguisher.

Protect your health and safety.

Never underestimate the fire or overestimate your ability.
Check fire extinguisher before approaching fire.
Approach fire with caution.
Maintain a clear path to escape fire.

Major Fires

Alert other employees. Call 911. Evacuate fire area/building.

Assist any injured to escape
Provide aid and comfort to injured in accordance with your training and ability

TORNADOES

When a Warning Siren Sounds or a Tornado is Spotted:

Alert other employees. Seek shelter under a substantial object in the lowest level of a building away from windows, dangerous equipment or hazardous materials.

If driving a vehicle (if you can do so safely) drive at right angles to the tornado's path. Do not try to outrun a tornado. If you cannot avoid the tornado, get out of the vehicle, seek shelter if possible, if not, lie flat in the nearest ditch, ravine, or valley. Stay low to the ground.

BOMBS/EXPLOSIVES

If a Bomb or Suspected Bomb is Found

Do not touch or disturb the device. Alert other employees and call 911 and evacuate.

Telephone or Letter Bomb Threat

When listening to caller, record pertinent information (i.e., exact wording of threat, caller's voice, background sounds and threat language).

Inform supervisor, call 911. Inform other employees of situation and prepare to evacuate.

If a Bomb Explodes

Alert other employees. Call 911. Evacuate and assist any injured to escape (if this can be done without entering dangerous areas).

Provide aid and comfort to injured in accordance with your training and ability while observing universal precautions.

ON THE JOB VIOLENCE

If witnessing a serious criminal act or on the job violence:

Alert other employees if you can. Observe pertinent details (i.e. description of suspect, make and model of vehicle and/or license plate number).

Take actions to protect yourself and others. Call 911 if possible. Evacuate to a safe location or lock doors.

Provide aid and comfort to injured in accordance with your training and ability while observing general precautions.

OSHA Regulations (Standards - 29 CFR) - Table of Contents
Standard Number: 1910.67
Standard Title: Vehicle-mounted elevating and rotating work platforms.
SubPart Number: F
SubPart Title: Powered Platforms, Manlifts, and Vehicle-Mounted Work Platforms (a)
"Definitions applicable to this section" -
(a)(1)
"Aerial device." Any vehicle-mounted device, telescoping or articulating, or both, which is used to position personnel.
(a)(2)
"Aerial ladder." An aerial device consisting of a single- or multiple-section extensible ladder.
(a)(3)
"Articulating boom platform." An aerial device with two or more hinged boom sections.
(a)(4)
"Extensible boom platform." An aerial device (except ladders) with a telescopic or extensible boom. Telescopic derricks with personnel platform attachments shall be considered to be extensible boom platforms when used with a personnel platform.
(a)(5)
"Insulated aerial device." An aerial device designed for work on energized lines and apparatus.
(a)(6)
"Mobile unit." A combination of an aerial device, its vehicle, and related equipment.
..1910.67(a)(7)
(a)(7)
"Platform." Any personnel-carrying device (basket or bucket) which is a component of an aerial device.
(a)(8)
"Vehicle." Any carrier that is not manually propelled.
(a)(9)
"Vertical tower." An aerial device designed to elevate a platform in a substantially vertical axis.
(b)
"General requirements."
(b)(1)
Unless otherwise provided in this section, aerial devices (aerial lifts) acquired on or after July 1, 1975, shall be designed and constructed in conformance with the applicable requirements of the American National Standard for "Vehicle Mounted Elevating and Rotating Work Platforms," ANSI A92.2 - 1969, including appendix, which is incorporated by reference as specified in 1910.6. Aerial lifts acquired for use before July 1, 1975

which do not meet the requirements of ANSI A92.2 - 1969, may not be used after July 1, 1976, unless they shall have been modified so as to conform with the applicable design and construction requirements of ANSI A92.2 - 1969. Aerial devices include the following types of vehicle-mounted aerial devices used to elevate personnel to jobsites above ground:
(b)(1)(i)
Extensible boom platforms,
..1910.67(b)(1)(ii)
(b)(1)(ii)
aerial ladders,
(b)(1)(iii)
articulating boom platforms,
(b)(1)(iv)
vertical towers, and
(b)(1)(v)
a combination of any of the above. Aerial equipment may be made of metal, wood, fiberglass reinforced plastic (FRP), or other material; may be powered or manually operated; and are deemed to be aerial lifts whether or not they are capable of rotating about a substantially vertical axis.
(b)(2)
Aerial lifts may be "field modified" for uses other than those intended by the manufacturer, provided the modification has been certified in writing by the manufacturer or by any other equivalent entity, such as a nationally recognized testing laboratory, to be in conformity with all applicable provisions of ANSI A92.2 - 1969 and this section, and to be at least as safe as the equipment was before modification.
(b)(3)
The requirements of this section do not apply to firefighting equipment or to the vehicles upon which aerial devices are mounted, except with respect to the requirement that a vehicle be a stable support for the aerial device.
(b)(4)
For operations near overhead electric power lines, see 1910.333(c)(3).
..1910.67(c)
(c)
"Specific requirements" -
(c)(1)
"Ladder trucks and tower trucks." Before the truck is moved for highway travel, aerial ladders shall be secured in the lower traveling position by the locking device above the truck cab, and the manually operated device at the base of the ladder, or by other equally effective means (e.g., cradles which prevent rotation of the ladder in combination with positive acting linear actuators).
(c)(2)
"Extensible and articulating boom platforms."
(c)(2)(i)

Lift controls shall be tested each day prior to use to determine that such controls are in safe working condition.
(c)(2)(ii)
Only trained persons shall operate an aerial lift.
(c)(2)(iii)
Belting off to an adjacent pole, structure, or equipment while working from an aerial lift shall not be permitted.
(c)(2)(iv)
Employees shall always stand firmly on the floor of the basket, and shall not sit or climb on the edge of the basket or use planks, ladders, or other devices for a work position.
(c)(2)(v)
A body belt shall be worn and a lanyard attached to the boom or basket when working from an aerial lift.
(c)(2)(vi)
Boom and basket load limits specified by the manufacturer shall not be exceeded.
(c)(2)(vii)
The brakes shall be set and outriggers, when used, shall be positioned on pads or a solid surface. Wheel chocks shall be installed before using an aerial lift on an incline.
..1910.67(c)(2)(viii)
(c)(2)(viii)
An aerial lift truck may not be moved when the boom is elevated in a working position with men in the basket, except for equipment which is specifically designed for this type of operation in accordance with the provisions of paragraphs (b)(1) and (b)(2) of this section.
(c)(2)(ix)
Articulating boom and extensible boom platforms, primarily designed as personnel carriers, shall have both platform (upper) and lower controls. Upper controls shall be in or beside the platform within easy reach of the operator. Lower controls shall provide for overriding the upper controls. Controls shall be plainly marked as to their function. Lower level controls shall not be operated unless permission has been obtained from the employee in the lift, except in case of emergency.
(c)(2)(x)
Climbers shall not be worn while performing work from an aerial lift.
(c)(2)(xi)
The insulated portion of an aerial lift shall not be altered in any manner that might reduce its insulating value.
(c)(2)(xii)
Before moving an aerial lift for travel, the boom(s) shall be inspected to see that it is properly cradled and outriggers are in stowed position, except as provided in paragraph (c)(2)(viii) of this section.
..1910.67(c)(3)
(c)(3)

"Electrical tests." Electrical tests shall be made in conformance with the requirements of ANSI A92.2 - 1969, Section 5. However, equivalent DC voltage tests may be used in lieu of the AC voltage test specified in A92.2 - 1969. DC voltage tests which are approved by the equipment manufacturer or equivalent entity shall be considered an equivalent test for the purpose of this paragraph (c)(3).

(c)(4)

"Bursting safety factor." All critical hydraulic and pneumatic components shall comply with the provisions of the American National Standards Institute standard, ANSI A92.2 - 1969, Section 4.9 Bursting Safety Factor. Critical components are those in which a failure would result in a free fall or free rotation of the boom. All noncritical components shall have a bursting safety factor of at least two to one.

(c)(5)

"Welding standards." All welding shall conform to the following Automotive Welding Society (AWS) Standards which are incorporated by reference as specified in 1910.6, as applicable:

(c)(5)(i)

Standard Qualification Procedure, AWS B3.0 - 41.

(c)(5)(ii)

Recommended Practices for Automotive Welding Design, AWS D8.4-61.

(c)(5)(iii)

Standard Qualification of Welding Procedures and Welders for Piping and Tubing, AWS D10.9-69.

(c)(5)(iv)

Specifications for Welding Highway and Railway Bridges, AWS D2.0-69.

[39 FR 23502, June 27, 1974, as amended at 40 FR 13439, Mar. 26, 1975; 55 FR 32014, Aug. 6, 1990; 61 FR 9227, March 7, 1996]

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