



Chapter 7: Highway Hazards

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AGC Tool Box Safety Talk

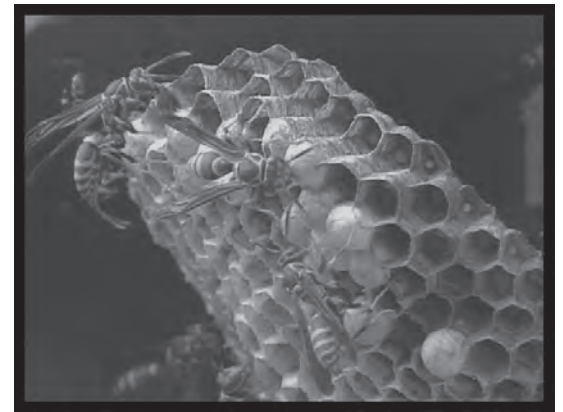
ANIMALS, INSECTS, SNAKES, AND POISONOUS PLANTS

INTRODUCTION

1. Review any accidents or “near accidents” from the past week.
2. Describe the hazards of the work as they relate to your project. Explain or show the SAFE way of doing the job.
3. Give the TOOL BOX SAFETY TALK

Plants and animals can cause rashes, illness, and even death. Outdoor work can expose you to animal bites, such as from dogs or snakes, and to plants like poison ivy and poison oak. To prevent problems:

- Watch for snakes, animals and insects that may be seeking shelter in high grass, debris or equipment.
- Steer clear of any animals.
- Wear the recommended protective clothing such as boots and gloves.
- If you are allergic to insect bites or stings, carry your emergency kit to control the reaction. It is advisable to notify your supervisor of your allergy.
- Learn to identify the poisonous snakes, spiders and stinging insects in your area. Snakes are unlikely to bite unless they are trapped or threatened.
- Learn to recognize and avoid poisonous plants such as poison oak, ivy, and sumac.
- Seek treatment immediately for bites or contact with poisonous plants.



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BARRICADES AND WARNING DEVICES

INTRODUCTION

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3. Give the TOOL BOX SAFETY TALK

Work zones on roadways are increasingly dangerous places, both for workers and for those traveling through them. Use barricades and warning devices at job sites to direct traffic flow and help ensure safety for motorists and workers.

- Install and maintain temporary traffic control devices, such as signage, warning devices, paddles, and concrete barriers, in a consistent manner as required by the Manual of Uniform Traffic Control Devices throughout the work zone.
- Set up temporary traffic control within a reasonable time prior to construction so that motorists do not become complacent and ignore warning signs and devices when work begins.
- Provide flaggers with devices that increase their visibility to passing motorists and construction vehicles.
- Ensure that all traffic control devices are operating properly and in place at all times. Missing traffic control devices create the potential for motorists to inadvertently enter the work space or exit the highway in the wrong place.
- At night, use signs that are made of reflective material or are illuminated.
- Reduce space between channelizing traffic control devices during hours of darkness to compensate for reduced driver visibility.
- When work is suspended for short periods, all signs that are no longer appropriate shall must be removed, covered, turned, or laid flat so they are not visible to drivers.



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FLAGGERS' RESPONSIBILITIES

INTRODUCTION

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2. Describe the hazards of the work as they relate to your project. Explain or show the SAFE way of doing the job.
3. Give the TOOL BOX SAFETY TALK

Flaggers have been injured when vehicles intrude into traffic work zones and by internal vehicle-related incidents. Flaggers should only be used when other methods of traffic control are inadequate to direct or control traffic and to ensure the safety of work zone workers and public drivers. When working as a flagger, follow these guidelines:

- Do not attempt to direct and control traffic unless you have been trained and designated to do so.
- Wear high visibility clothing that meets local, state and federal requirements - Orange, yellow, or green vest. Night work requires additional visibility clothing.
- Wear other protective equipment, including a hard hat and a long-sleeved shirt and pants, and appropriate clothes for expected weather.
- Stand alone on the shoulder in clear view being sure to face traffic at all times.
- Never stand in the open traffic lane.
- Stay alert, focused on work and avoid distractions.
- Plan an escape route for emergencies.



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HIGH-VISIBILITY CLOTHING

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Flaggers and other road crew workers on foot are at risk of being struck by vehicles, either public cars and trucks or construction equipment. One of the best defenses is to wear high-visibility clothing. This helps prevent accidents associated with struck by and struck against hazards.

- Always wear high-visibility safety apparel when working in traffic work zones.
- For daytime work, wear a vest, shirt or jacket that is bright orange, yellow, strong yellow-green, or a fluorescent version of these colors.
- For nighttime work, or work in low visibility light conditions, wear highly reflective apparel that is orange, yellow, white, silver or strong yellow-green and visible at a minimum of 1,000 feet.
- Ensure that reflective clothing is designed to clearly identify the wearer and be visible through a wide range of body motions.
- Inspect high-visibility clothing regularly to verify that color has not faded and that reflective properties have not been severely diminished or lost.
- Continuously monitor and maintain effective signage and traffic travel path definitive guidance.



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TRAFFIC ZONES

INTRODUCTION

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2. Describe the hazards of the work as they relate to your project. Explain or show the SAFE way of doing the job.
3. Give the TOOL BOX SAFETY TALK

Many workers have been killed or seriously hurt after being hit by a vehicle while in traffic work zones for highway and street construction. This danger exists when traffic is not properly routed and/or adequate barriers are not placed between workers or traffic. To help prevent accidents, follow these safe work practices

- Know the work zone and your position location in it.
- Know the internal job traffic control plan.
- If you have specific traffic control responsibilities, be sure you are trained in traffic control techniques, are qualified to use these techniques for traffic control device usage, and placement.
- Always wear appropriate high-visibility clothing such as reflective safety vests. Workers exposed to traffic must be seen by other drivers. Use the correct clothing for the time of the day that it is being worn. Different types of clothing and amounts may be required for different times of the day.
- Make sure barriers are provided between workers and equipment, when possible.
- Use designated site specific routes for equipment and workers.
- Workers must stay within the designated work zone.
- Know the locations of other workers, including equipment operators, and establish a method of communication with them making sure eye contact is made when you are in the area.



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WORKING ON BRIDGES

INTRODUCTION

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3. Give the TOOL BOX SAFETY TALK

Work zones on bridges can be hazardous to workers and traffic control personnel because motorists may not see the advance warning signs. There is little or no room to escape if motorists drive into the work zone. Take these precautions when working in bridge work zones:

- If possible, do not position traffic control personnel on bridges. Place them well ahead of the work that is being done and protect them with barricades if possible.
- Wear high-visibility apparel that is appropriate for the time of day work is being done.
- Make sure the bridge and approaches are well-lit during hours of darkness.
- Give motorists plenty of advance warning of upcoming work zones.
- Consider increasing the number of signs to warn motorists in order to avoid mishaps.
- Carefully plan and maintain full compliance for Personal Fall Protection Program requirements.



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WORKING AROUND HEAVY EQUIPMENT

INTRODUCTION

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3. Give the TOOL BOX SAFETY TALK

Being struck is the biggest danger in roadwork. Workers on foot must be alert at all times. To help avoid accidents, take these precautions:

- Wear appropriate high-visibility clothing, proper class of safety vest, and head gear.
- Check surroundings often. Listen for warnings.
- Know the traffic control plan and stay clear of vehicles.
- Work in only those areas necessary to carry out the job at hand. Where possible, stay behind barriers.
- Stay out of “blind” spots and outside a “safety circle” around equipment. If you can’t see the operator, he/she can’t see you. Make eye contact with the operator to let him or her know that you are there.
- Communicate with operators by radio and/or eye contact and confirm acknowledgement.
- Use spotters when you must work with your back to equipment or traffic.



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WORKING UNDER THE LIGHTS

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3. Give the TOOL BOX SAFETY TALK

Working on roads or highways at night can be particularly dangerous because of poor visibility for both motorists and workers. There is also a risk posed by impaired or drowsy drivers and sleep-deprived or drowsy workers. To help ensure safety:

- Report to your supervisor: Any lighting that shines directly into oncoming traffic. Non-working lights, flashers, beacons arrow boards, etc. Signage, cones or other traffic control devices that are defective or improperly placed or have been moved.
- Make sure work vehicles have appropriate beacons and light signals to ensure operator and traffic visibility.
- Provide clear signage. Place drums and cones and other traffic control devices closer together at night.
- Wear reflective clothing that meets night work criteria.
- Know your surroundings, including vehicle and equipment paths, assigned work areas, and safe paths to and from work.
- On foot, watch out for equipment.
- On equipment, watch out for workers.
- See and be seen.



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WORKING WITH ASPHALT

INTRODUCTION

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3. Give the TOOL BOX SAFETY TALK

Crews working on roads and highways risk exposure to asphalt. Asphalt fumes may cause eye and respiratory tract irritation. Hot asphalt can severely burn the skin. To prevent injuries from asphalt, take these precautions:

- Work upwind whenever possible.
- Maintain a lower temperature when possible to minimize fumes.
- Use positive ventilation on paving machines if required.
- Wear gloves and sleeved shirts and pants to prevent skin contact.
- Do not eat, smoke or drink where asphalt is handled.
- If you feel ill while working with asphalt, let your supervisor know right away.
- Especially during hot or warm outdoor temperature conditions carefully monitor personnel who have not been acclimated to such heat exposure.
- Maintain constant vigilance regarding backing asphalt vehicles as well as nearby public traffic.



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WORKING WITH CHAIN SAWS

INTRODUCTION

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2. Describe the hazards of the work as they relate to your project. Explain or show the SAFE way of doing the job.
3. Give the TOOL BOX SAFETY TALK

Tools and materials are two major hazards associated with road and/or highway work. Chainsaws, in particular, are inherently dangerous. If chainsaws are used improperly, both the operator and nearby workers are at risk of injury. Follow these procedures to help prevent accidents:

- Inspect chainsaws before use. Make sure controls and chain tension is functioning properly and are adjusted according to the manufacturer’s instructions.
- Wear proper personal protective equipment, including hand, foot, leg, eye, face, hearing and head protection. Do not wear loose-fitting clothing.
- Carefully assess and pre-plan an escape plan prior to cutting a tree.
- Avoid reliance on the chain tip for cutting as this portion of the saw is a primary reason for dangerous kickbacks.
- Clear away dirt, debris, small tree limbs and rocks from the saw’s chain path. Look for nails, spikes, or other metal in the tree before cutting.
- Check the area to make sure that all bystanders are clear of the cutting site.
- Keep your hands on the saw’s handles, and maintain secure footing and balance while operating the saw.
- Watch for branches under tension, they may spring out when cut.
- Shut off the saw or engage its chain brake when carrying the saw on rough or uneven terrain.

