# U-Verse Technician FIELD SAFETY GUIDE



### **PREAMBLE**

### Dear Brothers and Sisters,

The Communications Workers of America Central Valley Coastal Council Safety and Health Committee have compiled this Field Safety Guide specifically for our Premise Technicians. We felt that because the Premise Technician title is one of the most recent additions to the CWA family that it was important for us to analyze the functions of your job, research industry standards and your concerns to make recommendations that are tailored to your needs. It is our upmost concern that each and every one of our members makes it home, safe and sound, to their family and loved ones each and every day.

Please understand that this guide is only a reference. It does not supersede Company guidelines or policies that are presently in place. This guide was not intended to be used to aid in any disciplinary actions by the Company or relieve the Company of its legal responsibility to provide a safe, hazard free workplace. Our goal was to create a guide for the Premise Technicians that has as much information in regard to your specific job responsibilities and safety practices as possible and make them easily accessible to you. We feel this guide is somewhat more comprehensive than what the Companies have presently provided.

IN UNITY!

Communications Workers of America

Coastal Valley Council.

### U-VERSE TECHNICIANS FIELD SAFETY GUIDE

## NO JOB IS SO IMPORTANT AND NO SERVICE IS SO URGENT THAT WE CANNOT TAKE TIME TO PERFORM OUR WORK SAFELY. BELL SYSTEM

Remember! Safety is your responsibility. If you feel that you have encountered an unsafe working condition or been assigned an unsafe work operation, please contact your manager and Union representative or safety committee member.

### Communications Workers of America Coastal - Valley Council

### Guidelines for Working in Attics

### U-Verse Related Installation and Repair

- **1. Scope:** These guidelines apply to residential installations preformed by Premises Technicians for U-Verse services.
- **2. Purpose:** These interim guidelines were developed to address competitive work issues while installing U-Verse services in residential attic environments and are intended to reduce risk of physical injury and property damage.
- **3. Recommendations:** CWA encourages working in a safe and healthful manner. Whenever feasible and acceptable, alternative work processes should be explored and utilized. These alternatives could include (with customer concurrence and policy conformance): Alternative cable routes and/or equipment locations, use of lay-up sticks and fishing wires.
- **4. Responsibility:** Technicians are responsible for assessing the job site and determining the best and safest way to route cable and perform installation tasks. The technician should request that the owner/occupant provide access to the attic and relocate bulky, delicate, fragile or extremely heavy items along the cable or access route. The technician is responsible for requesting coworker assistance or utilizing specialized equipment, such as additional temporary lighting, working surface, fall protection, dust masks, or controls for heat exposure are needed.
- **5. Training:** All technicians who will perform work in attics should be trained in the potential risks associated with attic environments. Please, do not perform any work functions that you have not been adequately trained, by the Company.

- **6. Hazards/Risks:** There are several safety and occupational health-related risks associated with attic-related work, including: fall from heights, heat exposure, musculo-skeletal stress, dust, contact with sharp objects, contact with electrical wiring, pests such as insects and rodents. U-Verse technicians should utilize the following guidelines during the course of work. While no set of guidelines can completely anticipate or address all potential hazards, these focus on the risks identified by the CWA CVC Health and Safety Committee related to U-Verse installations.
- **A. Pre-job survey:** Prior to working in an attic environment, the technician should conduct a visual survey to observe and assess the work environment. In situations where a thorough survey is not possible in advance, a survey of the work area can be done as the job progresses. The following considerations should be included.
  - 1) Access to the attic,
  - 2) Method to hoist or carry tools, equipment and materials to the work area,
  - 3) Obstacles, obstructions, cramped areas, difficult access points
  - 4) Presence / condition of existing flooring.
  - 5) Ambient temperature and heat conditions in the attic spaces needing access,
  - 6) Protective equipment to be utilized,
  - 7) Presence of insulation materials,
  - 8) Lighting,
  - 9) Bare wires or open electrical boxes,
  - 10) Evidence of animal or insect infestation,
  - 11) Protrusions such as roofing nails, storage hooks or splinters,
  - 12) Locations of household electrical wiring, gas pipes, plumbing, air conditioning ducts and other services, to avoid damage during cable installation.
  - 13) Dust accumulations and potential for disturbance, exposure and distribution.
  - 14) Any other pertinent conditions unique to this site.
- **B.** Access: In general, attics have some type of stairway, fold down ladder, access panel hatchway, or entry point from the floor below. In some cases the entry point may be from the same floor level through an access panel or doorway.

Where a portable ladder is needed to gain access, the technician must use a Company provided ladder. Premises Technicians are not authorized to use an owner/occupant's portable ladder. Routine ladder handling and placement procedures apply with the following considerations:

- 1) Assure that there is a stable footing for the ladder.
- 2) Select the correct height of ladder for the situation,
- Assure that there is a stable resting point for top of extension or section ladders,
- 4) When using a folding stepladder avoid using the top platform or top step to transition into the attic. Using the second step from the top should generally be avoided, however, this can be allowed if a sufficient hand-hold is available and balance can be maintained with the center of balance directly above the ladder. Visual inspection of folding ladder must be conducted prior to use. View weight restrictions on ladder, if posted.
- 5) Maintain a center of balance on the ladder. Do not lean or step to the side when stepping onto or off of the ladder. This will reduce the likelihood that the ladder will shift or tilt.
- 6) Whenever possible maintain "3 points of contact" while ascending or descending an access ladder. While stationary on a ladder both hands can be used to manipulate or pass items into the attic as long as the center of gravity is maintained directly over the ladder to avoid tilting or shifting of the ladder.
- 7) When necessary to lift tools, equipment or materials into the attic it may be possible to climb several steps and then lift/slide the item(s) into the attic. In addition, if a second person is available, items should be passed from one person to the next for placement into the attic space.
- 8) Avoid carrying loose tools by hand. Use a tool belt or power tool "holster".
- 9) Some items may need to be hoisted into the attic using a hand line or rope. Care should be exercised while standing next to floor openings such as an opened hatchway. Tracking equipment/material up the ladder, while maintaining 3 points of contact, may be necessary in some situations. A method for lifting large/bulky items into the attic is provided in Appendix I.

### C. Walking and Working Surfaces:

Attic flooring may not be present or present only in portions of the attic. There is a risk of falling through the space between joists resulting in severe personal injury and property damage. The location of the joists may be obscured by fiberglass insulation, stored items, and poor lighting. Some technicians prefer to use portable / temporary flooring at the work locations and not travel across the joists. The use of the joists as walking surface is acceptable provided that the joists can be seen clearly along the entire pathway to be traveled and adequate balance and footing can be maintained. Where temporary / portable flooring is not a suitable option, the technician should follow the following guidelines while walking or kneeling on joists:

- The joists are visible
- Obstacles are moved to provide a reasonable clear and unobstructed pathway
- Care should be given to avoid nails or other protrusions
- Utilize stationary / secure parts of the structure as handholds along the pathway to aid balance.
- Carefully transfer weight from one foot to the other confirming that the advancing foot is firmly on the next joist using both feel and visual confirmation.
- Carefully transfer weight from one knee to the other and one hand to the other. Always avoid placing weight on areas between joists since ceiling materials such as sheet rock cannot support the weight of an individual.
- Never place heavy tools such as power tools or other heavy equipment directly on ceiling materials.

Where flooring is not present, a suitable working surface should be provided. In some situations a temporary plywood or composite working surface can be utilized. Any alternative work surface accessories must be evaluated for stability and strength prior to routine use. When sections of wood planking (i.e., 2"X4", 2"X 6" or 2"X 8" and etc.) are available for use at the location, care must be exercised to avoid overloading the plank. Some planks have imperfections such as knots or cracks that can significantly reduce its weight-bearing characteristics.

All plywood used for portable / temporary flooring must be 36 inches or greater in length. This will provide adequate span strength and will allow use for most joist spans found in attics.

Extreme care must be exercised to assure that the board(s) are stable and span as many joists as possible. Avoid standing at the ends of the board so the board will not "sea-saw" and result in lost footing. In some situations two boards may be required to safely conduct the work operation. In addition, the support capabilities of plywood used as a temporary walking and working surface is based on 24" width. Refer to Table 1 for additional plywood criteria.

**Table 1.** Plywood for use as a temporary walking and working surface 24 inches wide X 36 inches long: To support 325 lbs. – center span. **(1)** 

Joist/Rafter Spacing	Thickness of Plywood	Approx, Weight of 24"X36"
Center to Center (inches)	(inches)	Sheet (lbs)(2)
16	1/2 "	9.0
24	5/8 "	10.8
32	3/4"	13.2

### Notes:

- (1) American Plywood Association APA Structural I rated Underlayment or Sheathing Plywood (sanded or rough) based on Span Rating Guidelines, approximate.
- (2) Approximations based on APA plywood specifications for pounds per square foot (PSF): ½ " 1.5 PSF, 5/8" 1.8 PSF, ¾ " 2.2 PSF Varies with brand, but the APA markings indicates the plywood conforms to the above strength and weight specifications.
  - The span and weight considerations are based on plywood of 24" width. If 18" wide plywood is used, the next thickness must be used. For example, when using an 18" wide X 36" long piece of plywood for a 16 or 32 inch span, ¾ "thick plywood must be used rather than 5/8".
  - For joist spans of 24" the minimum plywood length is 48" to avoid instability and tipping when standing near ends.
  - Plywood of less than 18" wide is not permitted since the supporting span strength is not sufficient. Adequate footing stability should also be taken into consideration.

**D. Heat Stress:** Attic environments can become quite hot, particularly in regions prone to high temperatures and intense sunlight. Heat exposure is influenced by the ambient temperature, absence of air movement, direct sunlight on the portion of the roof above the work area and proximity to the inside surface of the roof. Both the air temperature and the radiant heat from the inside roof surfaces will contribute to the heat load while working in the attic.

The effects of exposure to the heat are influenced by the factors outlined above, personal acclimatization to the heat, other health issues or use of prescription medications, clothing, duration of the exposure to the hot environment, and level of physical exertion. If symptoms of heat exposure are experienced the technician should immediately leave the area and rest in a cool shaded area. The increased intake of cool water is also recommended.

- Avoid wearing bulky or heavy clothing. Lightweight clothing made of natural fibers is generally cooler to wear.
- Increase water intake.
- For individuals who do not routinely work in hot environments, it may require a gradual increase in the amount of work time that can be tolerated without symptoms of heat exposure. This is referred to as acclimatization and will vary from individual to individual.

  Acclimatization occurs gradually over a period of days or weeks based on the frequency of working in hot environments.
- Avoid continuous periods of heavy work in hot attics. On hot days it is recommended that additional break time in a cool and shaded area be taken.
- For extreme situations where the level of heat exposure does not allow for prolonged periods of work (i.e., approximately 30 minutes or longer), special equipment such as cooling vest or ventilation procedures may be necessary.
- In some homes, a whole-house fan or ventilation blower may be present. Request that the owner/occupant turn the fan on prior to working in the attic. Avoid contacting the blades and maintain at least 5 feet distance from an unprotected moving fan blade.

### E. Electrical Hazards:

The condition and location of electrical wiring should be observed during the pre-survey. Avoid open junction boxes and coming into contact with conductors. If an open junction box is observed, maintain adequate clearance distance to avoid contact. Assume that all exposed wiring is "live". Avoid stepping or kneeling on armored metallic cable (i.e. BX) or plastic-sheathed cable (i.e. Romex). In addition, care should be taken not to place tension or significant movement on cables since this might cause a loose connection to release, causing a short or other hazard. Under no circumstance should a U-Verse technician repair or modify electrical wiring defects in order to proceed with a job. If electrical system repair work is necessary notify the home owner/occupant.

When working near metallic equipment that could be contacted such as air conditioning units or attic fans, test equipment using an 188A / C9970 Voltage Detector. If stray voltages are detected avoid the area and contact with energized equipment during work or travel near the area. If an adequate minimum clearance distance (i.e. 5 feet) cannot be maintained, contact your supervisor for instructions.

### F. Lighting:

Adequate lighting needs to be present during work operations in attics. If installed lighting is not present or is not suitable for performing work, lighting can be provided by battery operated source(s) such as flashlights, portable 110 VAC drop light(s) or helmet-mounted headlamps. Judgment needs to be used to determine the necessary level of lighting to accomplish the tasks at hand traveling through the attic.

### G. Dust:

Fiberglass and other settled nuisance dusts will be present on surfaces in the attic. Work operations will likely disturb settled dust and may cause an inhalation problem, eye irritation or in extreme cases reduced visibility. Routine work or walking on the attic surfaces is not likely to result in extreme dust conditions; however employees should wear a disposable dust mask to reduce inhaling dust. Dust masks introduce some breathing resistance particularly as exhaled moisture dampens the mask material (paper-like filter material). Using a dust mask with an exhalation valve can reduce this effect and add comfort.

Care should be exercised to avoid disturbing excessive dust. The following considerations should be given for avoiding dust generation or distribution:

- When using a portable blower for heat control. Proper ventilation techniques should be used to avoid dust disturbance – This includes directing the force of the airflow away from dust accumulations.
   Pointing the airflow towards the roof can help diffuse the air flow and minimize the dust generation. (See Appendix II)
- If it is necessary to move fiberglass insulation or other items with settled dust accumulations present, care should be exercised to limit the disturbance of the dust (i.e., move pieces of insulation slowly and place them down rather than tossing them.
- To the extent possible reduce the level of dust entering occupied spaces through the attic hatchway or doorway.

**H. Puncture Hazards:** Nails used to secure roofing shingles and other roofing products can protrude through the roof. This can pose significant risk of injury during all aspects of attic- related work. Head protection should be worn at all times to avoid head injury. Care should be exercised to avoid other puncture hazards such as partially driven nails, splinters and sharp edges. Sufficient distance to avoid inadvertent contact with protruding nails should be maintained whenever possible. Always inspect the work area to observe the presence of potential puncture hazards. Where there is fiberglass or other insulation materials present that might obscure sharp objects, these materials should be moved aside to inspect the area below them. This is of particular importance for walking and working surfaces or areas with tight clearances.

### I. Personal Protective Equipment (PPE):

The applicable PPE for the specific tasks should always be utilized. This includes safety eyewear, safety helmet, work gloves work boots (defined heels if climbing rung ladders), safety toe footwear (if lifting/carrying 30lbs or more), dust mask, hearing protection and kneepads. During the pre-job survey it is the responsibility of the technician to determine the required PPE. In any event safety eyewear, safety helmet, work gloves and work boots should always be utilized.

### J. Musculo-Skeletal Stress (Ergonomic Considerations):

Technicians working is an attic space may encounter tasks or activities which

requires them to bend and stoop, twist, squat or crawl. The task of working in an attic would also require employees to sit or crouch for long periods of time, especially in constrained or poorly supported positions in cramped or confined attic spaces. This work also may require employees to maintain a single posture for long periods.

To reduce exposure, work should be planned so that employees are able to frequently vary their postures during the working day, for example, between sitting and standing postures. The technician should pre-survey the attic workplace to see if changes can be made to allow for easy movement in the work area, thereby reducing the need for awkward, unbalanced, tense or cramped postures.

Work postures which require frequent bending or twisting should be reduced or eliminated when possible. Supports and cushioned floor covering should be provided when appropriate and short rest breaks should be taken throughout the work shift if necessary.

### Appendix I: Method for placing a temporary work platform into an attic work space:

- Divide a standard 4'X8'X ¾ "piece of plywood into four or more pieces as determined by the dimensions from Table 1 and job needs.
   Alternatively, 5/8" or ½ "thick plywood can be substituted to save weight or as local availability determines which is available. Take care not to use plywood that is not sufficient to support the weight of the worker.
- Attic work may require more than one piece of plywood (i.e., 18" X 36", 2' X 3', 2' X 4' etc.)
- Any other suitable platform or surface that can support the individual's
  weight and will span at least two joists is suitable. A span across three
  joists is preferred. Narrow boards (i.e., less than 11.5") should be avoided
  to assure stability and to provide sufficient surface area for working /
  standing.
- The strength of the plywood depends on the thickness and width. The guidelines for the allowable span are based on 24" width for specific thickness of plywood. The span needs to be adjusted accordingly if the width of the plywood is reduced (i.e., to 18") refer to Table 1 in the "Working in Attics Guidelines" for further information.

### Transporting portable work surface (plywood) to the attic:

- Drill a ¼ "(approximately) hole completely through top center of the plywood section for stability and balance (approximately one inch from the edge would be suitable).
- Pass a suitable length (i.e., 10+ foot piece of houseline (rope) through the hole and tie it back on itself. If two or more pieces of plywood are needed for the job, the multiple sections can be tied together and raised as a single unit. The approximate weight of each section generally 11 lbs or less. Personal lifting ability and configuration of the access will determine the suitability of lifting multiple sheets using this method. Consideration should be given to not exceed the load strength of the rope being used.
- Attach houseline (rope) to the tool belt or other suitable anchorage point. Leave enough slack to reach attic height.
- Climb access device (ladder, stairway, step ladder), maintaining 3 points of contact at all times.
- Position yourself in attic opening in a comfortable and stable position.
- By pulling on houseline, raise the plywood through the attic opening.
- Until or cut the houseline for later use to lower the plywood.
- Place the plywood section(s) across the floor joists.
- Lower the plywood reversing the process, avoiding obstacles as necessary.

### Alternative method:

For lower height attic access areas (i.e., 8 feet or less) it might be more appropriate to climb on third to half way up the access ladder, reach down, then raise the plywood into the attic and slide it onto the joists. Judgment is needed to determine if this is a suitable procedure for a specific location. Although three points of contact are not maintained, this would be permissible since the technician is stationary at the time the plywood is being handled. This would be similar to working while stationary and standing on a ladder. Do not proceed to climb while holding the plywood.

Note: If it requires more than one piece of plywood to reach the work operation, place another piece of plywood in front of the one supporting the weight of the employee. Remove the one which the employee steps

from and place it in front of the plywood supporting the employee. Repeat the process until the employee is able to access the work location desired. When returning to the attic opening to descend, reverse the process and lower the plywood in the same manner as used to raise it to the attic opening.

### <u>Appendix II: Interim attic ventilation procedures for provision of fresh air control of heat.</u> (Recommendation)

- Only electrical blowers (110 VAC) should be utilized
- Never use propane or gasoline powered manhole blowers indoors for attic access use.
- Consider the amperage of the manhole blower and the ability of the receptacle / circuit to handle the additional load. Concurrence with the occupant / homeowner should be obtained prior to use of the blower.
- Caution should be exercised while carrying and placing the blower equipment to avoid damage to the walls and furniture or staining with grease or dirt.
- The blower hose discharge should be placed to avoid disturbance of dust from insulation materials and settled dust. Pointing the blower hose discharge towards the roof can help diffuse the air flow of high velocity air and reduce the disturbance of settled dust.
- Consideration must be given to hot or dirty air being blown back into the occupant's living space.
- Avoid using ladders of access stairway while a blower hose is in the same space to avoid tripping.

### H. Defensive Driving:

Driving a Company vehicle is an integral part of the job. It is important that defensive driving techniques be used both on and off the job. It is priority one that we make it to work and the worksite safely.

Always do a thorough inspection of your vehicle prior to driving.

- Inspect all lights on the vehicle for proper operation.
  - (It will require another person to help with this inspection for brake and back-up lights.)
- Make sure vehicle is in good running condition by inspecting engine fluids and tire pressure.
- Make sure the horn is operational.
- Make sure the seat belts are in good condition and work properly.
- Ensure windshield and all windows and mirrors are clean and free of any damage or anything that could obstruct your vision.
- Adjust all mirrors prior to driving vehicle.

Always wear your seatbelt while in the vehicle.

Follow all traffic codes, regulations and maintain appropriate speed limits for your area.

Always maintain a proper space cushion for driving conditions taking into consideration weather, vehicle weight and day/night driving.

Never use a cell phone, smart phone, laptop computer, gps or any other device with an LCD display while driving. (NO TEXTING)

Never eat or drink while driving.

Keep both hands on the steering wheel (3 o'clock and 9 o'clock positions).

When parking look for the best possible parking conditions, preferably one that will not require backing of the vehicle. If a pull through parking space is not available, back in to space on arrival. If possible, have another person back you up. Avoid parking too close to driveways or other parked vehicles.

Do your "Circle of Safety".

Always place your traffic cones and chocks immediately upon arriving and retrieve them immediately before leaving the site.

Most importantly stay alert, maintain a good attitude and constantly visually scan the areas in front and around your vehicle.

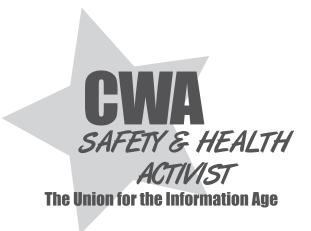
### "ARRIVE ALIVE!"

For more information on defensive driving, access your Company defensive driving lesson plan and be sure to keep up to date on your annual coverage's.

### **Extreme Heat**

### What Outdoor Workers Must Know To Protect Their Health When Temperatures Soar

A Life-Saving Guide to Heat Stress From CWA's Occupational Safety and Health Department





### **Heat Stress**

Heat stress is a risk for tens of thousands of CWA members whose jobs always or frequently require them to work outdoors, even in extremely hot weather. Telecom technicians, camera operators, traffic enforcement agents, highway crews and others who work outside need to be aware of the risks and know how to protect themselves.

Exposure to extreme heat can cause heat rash, cramps, dizziness, fainting, exhaustion, heat stroke and even death. Since 2004, two CWA members have died while working on extremely hot days, fatalities that might have been prevented by protective practices and policies.

Too many employers have failed to recognize the seriousness of high heat exposure. As employers cut jobs, many workers say they are being pressured to squeeze more work into a single day. For outdoor assignments, that can add up to long hours in high heat without adequate breaks to cool down.

CWA's Occupational Safety and Health Department has received numerous reports from locals nationwide describing heat-related illnesses and injuries. We take these and all threats to our members' health very seriously and hope this publication will help local leaders start or renew a dialogue with their employers. In addition, CWA leaders should use and share the information contained within this booklet with co-workers, friends, and acquaintances- including those involved in CWA's organizing efforts at non-union telecommunications, cable, and satellite companies. In turn, information about organizing opportunities should be shared with local union organizing committees.

### Death on the Job in Indiana and California

The heat-related deaths of two CWA members are a tragic reminder that high temperatures are a serious health risk.

Dennis Miller, 55, was found dead in July 2006, hanging by his body belt from a telecom pole on a very hot day. The heat index was 100 degrees. A member of CWA Local 4818 in Bloomington, Ind., Dennis was an AT&T installation and repair technician. Although his bosses knew he had medical problems, they assigned Dennis to perform the work in violation of AT&T policy and OSHA's Heat Stress Guidelines. Significantly, Dennis was working alone at the hottest time of day. A work partner or an early morning job assignment might have saved his life.



Scott Hamilton was just 38 years old when he died on the job in Escondido, Calif., in July 2004. A member of CWA Local 9511, Scott was an AT&T cable splicer. He suffered fatal heat stroke while replacing a telecom cable in hot, arid, desert-like conditions. As in Dennis's case, the company knew that Scott had medical issues but failed to take adequate steps to protect him.

### **How High Heat Affects Your Body**

Up to a certain point, a healthy body can rid itself of excess heat and keep its internal temperature within safe limits.

The body does this by managing its rate and depth of blood circulation, which leads sweat to evaporate through the skin: As the heart begins to pump more blood, blood vessels expand to accommodate the increased flow. The blood circulates to the surface of the body and excess heat is lost into the cooler atmosphere. This is the evaporation of sweat, the most effective and important way to expel excess body heat.

But as air temperatures approach normal skin temperature, it's harder for the body to cool itself. High humidity makes the problem worse, and makes hard physical work more difficult. Under these conditions, on-the-job accidents, illnesses and fatalities increase, and workers' efficiency and job performance decline.

Within limits, your body will adjust to a hot work environment in about a week. At that point, the amount of strain on the body is reduced. A worker who has become acclimatized will have a lower heart rate, lower body temperature, higher sweat rate, and, therefore, have more stamina for work in hot environments.

But not everyone adjusts as well or at the same rate. People with medical conditions can be at risk no matter how long they've worked in high heat.

### **Heat Stress and Related Health Problems**

What exactly is heat stress? It's the sum of the environmental and physical work factors that equal the total heat load placed on the body. These factors include the source of the heat, the physical demands of the work, a body's level of acclimatization and atmospheric conditions including temperature, humidity and wind.

Heat-related disorders include heat rash, heat cramps, heat syncope, heat exhaustion and heat stroke.



### **Heat Rash**

Commonly known as "prickly heat," heat rash is a skin irritation caused by excessive sweating during hot, humid weather. The sweat ducts become blocked and sweat glands inflamed leading red clusters of pimples or blisters to develop. An extremely uncomfortable condition, heat rash can be prevented by working in cooler, less humid environments, taking periodic breaks and practicing good personal hygiene.

### **Heat Cramps**

Heat cramps are painful, intermittent muscle spasms that occur during or after hard physical work in hot conditions. The spasms result from excessive salt loss through sweating, without adequate replacement. Drinking water alone is not necessarily enough to prevent spasms. Salted liquids and salted food are more effective. Workers with heart problems or on a low sodium/salt diet should notify their employer and/or supervisor of their medical condition. Affected workers should also contact their physician.

### **Heat Syncope**

Heat syncope is a fainting episode, dizziness or light-headedness that usually occurs as a result of prolonged standing or suddenly rising from a sitting or lying position. Lack of acclimatization and dehydration may also contribute. Workers who experience heat syncope should sit or lie down in a cool place and slowly drink water.

### **Heat Exhaustion**

Heat exhaustion is caused by the loss of body fluids and/or salt through sweating. It is characterized by profuse sweating, giddiness, weakness or fatigue, headaches, nausea, rapid and weak pulse, fainting and, in more serious cases, vomiting and loss of consciousness. Workers suffering from heat exhaustion will have cool, moist skin and a pale, flushed complexion with a normal or slightly higher than normal temperature. Affected workers should rest in a cool location and be provided plenty of fluids to drink. With such treatment, mild cases may result in spontaneous recovery. Severe cases may require more extensive medical care. Workers with heart problems or a low-sodium diet should inform their employer and supervisor of their medical condition. They should also consult their doctor before working in hot environments.

### **Heat Stroke**

Heat stroke is the most serious illness associated with work in hot environments. It occurs when the body's heat regulation mechanisms break down. The characteristics of heat stroke are high body temperature (105 degrees or more), little or no sweating and hot, dry flushed skin. In addition, workers



suffering from heat stroke may become delirious, confused, convulsive or comatose. Of ultimate concern, heat stroke may be fatal.

Heat stroke victims need urgent medical aid to begin lowering their body temperature. Move them to a cool area, soak their clothes with water and fan their bodies. If possible, immerse them in ice and wrap in cold, wet sheets. If an ambulance is not already en route, victims should be taken to the nearest hospital or clinic for additional treatment. Because severe heat stroke can result in brain damage, early recognition and treatment are essential.

### Controlling the Hazard

Because heat stress and the resulting health hazards depend on how much heat the body produces while performing a job, reducing the physical energy required or shortening the time spent in high heat can reduce the risk.

That means adequate rest breaks are essential. Breaks allow the body to rid itself of excess heat, reduce the production of internal body heat and improve blood circulation to the skin.

Employers can help protect their workers by rethinking the way the workload is distributed and breaking long periods of work into shorter work/rest cycles. As much as possible, the most strenuous work should be performed during the coolest times of day. These are good practices at any time, but are especially important during conditions of extreme heat and humidity.

Employers should also provide appropriate clothing. In strong sunlight, loose-fitting clothes that shade the skin but allow air to circulate are necessary. In low humidity/strong sunlight, less clothing is needed but workers must take care to avoid sunburn.

Workers also should be provided adequate supplies of water and sports-type liquids that replace lost salt and body fluids. Workers should be drinking enough water that they don't become thirsty. Replacement fluids should be 40 degrees Fahrenheit, or cool enough to be acceptable to workers' tastes. Drinks containing alcohol, caffeine or large amounts of sugar should be avoided. Of importance, workers should monitor their physical condition as well as that of their co-workers and encourage each other to stay hydrated.

Employer-provided safety and health training is essential for all CWA members who work in hot environments. Training sessions must look at environmental and personal risk factors, the types of heat stress, adaptation to hot environments and hazard control methods including first aid and cardiopulmonary resuscitation (CPR).



### **Heat Stress Standards and Recommendations**

OSHA has not yet established a heat stress/illness standard. However, the agency has issued guidelines based on heat stress recommendations from the National Institute for Occupational Safety and Health (NIOSH). CWA leaders, occupational safety and health activists and affected workers should use the NIOSH guidelines to ensure their employers are providing safe and healthful working conditions. Find them online at www.cdc.gov/niosh/topics/heatstress.

At the state level, California and Washington have established comprehensive heat stress/illness standards. CWA members in these states should refer to the standards' protective provisions and make sure their employer is adhering to them. The California standard is online at www.dir.ca.gov/Title8/3395.html. The Washington standard can be found at <a href="https://www.lni.wa.gov/rules/AO06/40/0640Adoption.pdf">www.lni.wa.gov/rules/AO06/40/0640Adoption.pdf</a>.



### What Can You Do?

The key to a safe workplace for all CWA members is strong, active local safety and health committees. Any members with concerns about dangerous conditions at work should bring them to their committee's attention. The committees can investigate and discuss the problems with management. If an employer refuses to cooperate, the committee can request an OSHA inspection. Committees should always coordinate their activities with local officers, CWA representatives and negotiated union-management safety and health committees.

In addition, CWA leaders should use and share this information on heat stress with co-workers, colleagues, and friends. This can be achieved through personal discussions and various local union activities including organizing, legislation and politics, as well as community service.



An important tool for all members and locals is CWA's Occupational Safety and Health website at:

### www.cwasafetyandhealth.org

For further help or information, CWA members can contact: Occupational Safety and Health Director Dave LeGrande CWA Occupational Safety and Health Department 501 3rd Street, N.W

Washington D.C. 20001-2797 E-mail: legrande@cwa-union.org Telephone: (202) 434-1160

Fax: (202) 434-1318

### Resources

Occupational Safety and Health Administration (OSHA): "HeatStress Guidelines" and "Heat Stress Quick Card" (www.osha.gov).

National Institute for Occupational Safety and Health (NIOSH): "Working in Hot Environments" (www. cdc/niosh.gov).

California: "Heat Illness Prevention in Outdoor Places of Employment Standard" (www.dir.ca.gov/Title8/3395.html).

Washington: "Outdoor Heat Exposure Standard" (www.lni.wa.gov/safety/).

