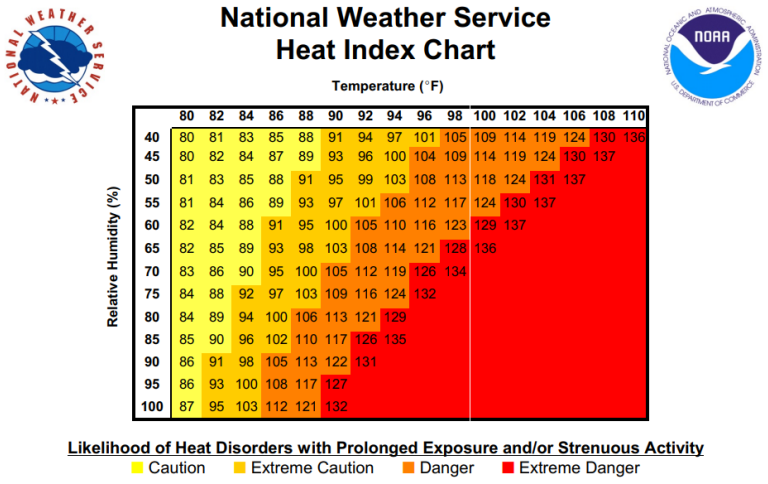
25.1 Policy Statement

This policy applies to all ASMG personnel, contractors and visitors when on company owned or operated property or job sites.

This Heat Stress Prevention Program has been developed with oversight by Kevin Labas, CSP & Owner of The Safety Collective (Per OSHA recommendation) and shall be used as a guide to provide workers with the training and equipment necessary to protect them from heat-related exposures and illnesses.

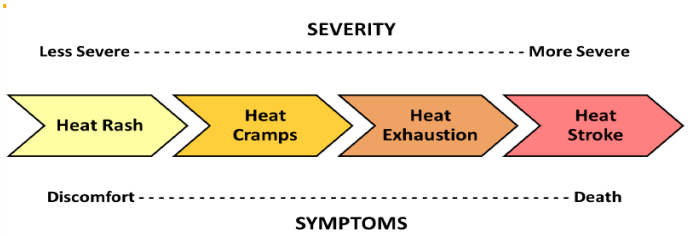
25.2 Heat Priority Days

- A heat priority day is defined by the OSHA National Emphasis Program (CPL 03-00-024) dated 04/08/22 as any day with a heat index greater than 80 (as detailed in the chart below).



25.3 Heat Exposure Hazards & Risk Factors

- There is an increased risk to heat related illnesses when body temperature is greater than 100.4F These hazards range from general fatigue to heavy sweating, nausea, elevated body temperature and could even result in death if proper measures are not adhered to. The path from heat stress/exhaustion to heat stroke is referred to as a “continuum” because there is no sharp demarcation between the two.



- Employees must be aware that personal health conditions or risk factors may contribute to heat stress/exhaustion and the warning signs attributed to those risk factors. Personal risk factors may have different impacts on everyone.

- The following are all personal factors that could elevate the likelihood that an individual experiences a heat-related illness:
    - Age, poor diet, poor physical fitness, alcohol use, fatigue and sleep deprivation, diabetes, smoking and tobacco use, pregnancy, insufficient acclimatization, obesity and high body mass index (BMI), excessive caffeine use (coffee, caffeinated soft drinks, energy drinks, etc.), asthma and other respiratory issues, cardiac conditions, high blood pressure, prior heat illness episodes, use of certain prescriptions or non-prescription and over the counter drugs, medications, or supplements.

25.4 Acclimatization

- The term "acclimatization" means that the body gradually adapts and tolerates higher levels of heat stress over time.
    - **A large majority of heat-related illnesses and deaths take place during a worker's first week.**
- New employees and employees returning to work environments with potential exposure to heat hazards after an absence of one week or more must adhere to acclimatization protocol, limiting exposure with extended breaks, and be under close observation by supervisors.
- This also applies to workers returning from any kind of extended leave; workers who continue working through seasonal changes when temperatures first begin to increase in the spring or early summer; and workers who work on days when the weather is significantly warmer than on previous days (i.e., heat wave).
- During these periods, supervisors will implement a **"buddy system"** and pay close attention to one another, observing for symptoms referenced Heat Illness Symptoms section of this program, or on the NIOSH application explained in the next section.
    - The buddy system ensures that first aid and emergency responses can be provided in a timely manner when needed.

25.5 Measuring Heat Index

- Workers and Supervisors will refer to the **OSHA-NIOSH Heat Safety Tool App** on their devices (Apple or Android) for real time location-based conditions.
    - Special care will be shown to plan and prepare when in remote areas with limited access to cellular functions.
        - In these cases, the crew supervisor will obtain the forecast immediately prior to the shift and will be required to periodically check throughout the shift.
    - Precautions will be followed based on the risk level identified either by the NIOSH app or the Heat Index Chart provided in Section 2 of this program.
    - These precautions are covered in the next section.

25.6 Risk Levels & Precautions

- Risk level is determined by the NIOSH heat application or NOAA Heat Index Table above.
    - The supervisor will categorize the day's risk and implement the precautions outlined in the table below:

CONDITIONS	PRECAUTIONS
Potentially Dangerous **"Caution"**	Alert workers to the heat index for the day, provide adequate amounts of potable water & electrolytes near the work area, drink 1 cup (8 oz) water every 15-20 minutes, set up cool shaded areas, provide tools to assist with heat illness prevention (hats, fans, cooling towels, etc.)
Hazardous **"Warning" / "Extreme Caution"**	In addition to Potentially Dangerous Conditions: Alert everyone on site of hazardous conditions, supervisor should modify work activities & set break schedules, establish buddy system for symptom monitoring, actively encourage workers to drink often
Dangerous **"Danger" / "Extreme Danger"**	In addition to Hazardous Conditions: Start earlier, re-schedule all non-essential work, move essential work to coolest part of day, strenuous tasks and those requiring use of non-breathable protective equipment and clothing should not be conducted.

25.7 Provisions of Water & Electrolytes

- All employees shall have access to potable water in all places of employment as defined in 29 CFR 1926.51 Sanitation Standard.
    - Water shall be provided in sufficient quantity at the beginning of the work shift.
    - Portable containers used to dispense drinking water shall be capable of being tightly closed and equipped with a tap.
    - Water shall not be dipped from containers.
    - Any container used to distribute drinking water shall be clearly marked as to the nature of its contents and not used for any other purpose.
    - The common drinking cup is prohibited.
    - Where single service cups (to be used but once) are supplied, both a sanitary container for the unused cups and a receptacle for disposing of the used cups shall be provided.

- Potable water means water that meets the standards for drinking purposes of the State or local authority having jurisdiction, or water that meets the quality standards prescribed by the U.S. Environmental Protection Agency's National Primary Drinking Water Regulations (40 CFR part 141).
- The company will also make efforts to provide employees with electrolyte beverages or powders to be added to water.
- Electrolytes are an essential preventative and recovery tool when the body is exposed to high temperatures.

25.8 Access to Shade

- Employees suffering from heat illness or believing a preventative recovery period is needed shall be provided access to an area with shade that is either open to the air or provided with ventilation or cooling for a period of no less than five minutes.
  - Such access to shade shall be always permitted.
  - Shade areas can include trees, buildings, canopies, lean-tos, or other partial and/or temporary structures that are either ventilated or open to air movement.
  - The interior of cars or trucks are not considered shade unless the vehicles are air conditioned or kept from heating up in the sun in some other way.
  - Where possible, crews should consider shading operator seats / stands where this would not create a greater hazard given the high stationery-exposure to sunlight in these areas.

25.9 Safe Work Practices

- In addition to the precautions listed earlier in the program, Supervisors are responsible for performing the following as part of this program as needed:
  - Give workers frequent breaks in a cool area away from heat.
  - Adjust work practices as necessary when workers complain of heat stress.
  - Implement buddy system when conditions are deemed Hazardous.
  - Oversee heat stress training and acclimatization for new workers and for workers who have been off work for a period of time.
  - Monitor the workplace to determine when hot conditions arise.
  - Increase air movement by using fans where possible.
  - Provide potable water in required quantities.
  - Determine whether workers are drinking enough water.
  - Make allowances for workers who must wear personal protective clothing (welders, etc.) and

equipment that retains heat and restricts the evaporation of sweat.

- Schedule hot jobs for the cooler part of the day; schedule routine maintenance and repair work in hot areas for the cooler times of the day.
- Make available to all workers, cooling devices (hard hat liners/bibs/neck bands) to help rid bodies of excessive heat.

- Workers are responsible for performing the following:
  - Follow instructions and training for controlling heat stress.
  - Be alert to symptoms in yourself and others.
  - Participate in buddy system with co-worker on site to monitor one another.
  - Determine if any prescription medications you're required to take can increase heat stress.
  - Wear light, loose-fitting clothing that permits the evaporation of sweat.
  - Wear light colored garments that absorb less heat from the sun.
  - Drink small amounts of water – approximately 1 cup every 15 minutes.
  - Avoid beverages such as tea or coffee.
  - Avoid eating hot, heavy meals.
  - Do not take salt tablets unless prescribed by a physician.

25.10 Heat Stress Illnesses & Symptoms

- Several heat-related illnesses can affect workers. Some of the symptoms are non-specific.
  - This means that when a worker is performing physical labor in a warm environment, any unusual symptom can be a sign of overheating.
    - **Heat stroke**: Confusion, Slurred speech, Unconsciousness, Seizures, Heavy sweating or hot, dry skin, Very high body temperature, Rapid heart rate.
    - **Heat exhaustion:** Fatigue, Irritability, Thirst, Nausea or vomiting, Dizziness or lightheadedness, Heavy sweating, Elevated body temperature or fast heart rate.
    - **Heat Cramps:** Muscle spasms or pain, usually in legs, arms, or trunk
    - **Heat Syncope:** Fainting and Dizziness.
    - **Heat rash:** Clusters of red bumps on skin, often appears on neck, upper chest, and skin folds.
    - **Rhabdomyolysis (muscle breakdown):** Muscle pain, Dark urine or reduced urine output, Weakness.

25.11 First Aid Measures & Emergency Response

- When symptoms are present the victim and first aid trained personnel must act promptly.
    - The National Safety Council recommends the following immediate first aid steps for heat exhaustion and heat stroke:

HEAT EXHAUSTION	HEAT STROKE
1. Move the victim out of the heat to lie down in a cool place; loosen or remove outer clothing. 2. Cool the victim with a cool water spray or wet cloths on the forehead and body. 3. Give the victim carbohydrate-electrolyte drinks such as sports drink, milk, coconut water to promote rehydration. Give water if carbohydrate-electrolyte drink is not available.	1. Call 9-1-1 2. Move the victim to a cool place. 3. Remove outer clothing. 4. Immediately cool the victim with any means possible (immersing the victim up to cold water up to the neck), or a cold shower, or cover as much of the victim with cool, wet towels. 5. Do not try to force the victim to drink liquids. 6. Monitor the victim and be ready to perform CPR.

25.12 Training

- All employees who are or may be exposed to potential heat related illnesses will receive training on the following:
    - The environmental and personal risk factors that cause heat related illnesses;
    - The employer's procedures for identifying, evaluating and controlling exposures to the environmental and personal risk factors for heat illness;
    - The importance of frequent consumption of small quantities of water, up to 4 cups per hour under extreme conditions of work and heat;
    - The importance of acclimatization;
    - The different types of heat illness and the common signs and symptoms of heat illness;
    - The importance of immediately reporting to the employer, directly or through the employee's supervisor, symptoms or signs of heat illness in themselves, or in co-workers.
    - The employer's procedures for responding to symptoms of possible heat illness, including how emergency medical services will be provided should they become necessary;
    - Procedures for contacting emergency medical services, and if necessary, for transporting employees to a point where they can be reached by an emergency medical service provider;
    - How to provide clear and precise directions to the work site.

25.13 Heat Stress Checklist

- Heat conditions can change rapidly throughout the day, therefore a competent individual at the worksite must be responsible for monitoring conditions and implementing the employer's heat plan throughout the workday.
    - A checklist is provided as a separate attachment to the program to assist in this duty.
    - Supervisors shall utilize Job Hazard Assessments and other planning tools to adequately plan for the day.

25.14 *Cold Weather Exposure*

- Exposed skin freezes within one minute at -20°F when the wind speed is five miles per hour (mph), and will freeze at 10°F if the wind speed is 20 mph. When skin or clothing are wet, injury or illness can occur in temperatures above 10° F, and even above freezing (32° F). When the body is unable to warm itself, hypothermia and frostbite can set in, resulting in permanent tissue damage and even death.
- Watch for the following signs of cold-related illnesses:
    - Uncontrollable shivering
    - Slurred speech
    - Clumsy movements
    - Fatigue
    - Confused behavior
- Layer clothing to keep warm enough to be safe, but cool enough to avoid perspiring excessively.
    - Inner layer – synthetic weave to keep perspiration away from the body.
    - Middle layer – wool or synthetic fabric to absorb sweat and retain body heat.
    - Outer layer – material designed to break the wind and allow for ventilation.
- Wear a hat to avoid losing almost 40 percent of your body heat.
- Place heat packets in gloves, vests, boots and hats to add heat to the body.
- Watch out for the effects of cold temperatures on common body functions such as:
    - Reduced dexterity and hand usage
    - Cold tool handles reducing your grip force
    - The skin’s reduced ability to feel pain in cold temperatures
    - Reduced muscle power and time to exhaustion

25.15 Program Review

- Safety Managers will periodically review this program for compliance with all applicable regulatory standards.
    - Updates will be provided to all employees.