CONNECTICUT Labor
CONN-OSHA

Sample Heat Illness Prevention Plan

COMPANY NAME: _____

SITE LOCATION: _____

First Aid Name(s):

Phone:

Alternate Phone:

Emergency Medical Services:

Phone:

Local Hospital:

Phone:

PURPOSE: The purpose of this plan is to protect our employees from the hazards of hot working environments. Work activities that could potentially expose our employees to these hazards include:

_____

_____

SCOPE:

This plan implements efficient and safe work practices that will prevent both indoor and outdoor heat-related illnesses among employees at our workplace and ensure employees know how to recognize heat stress hazards and act appropriately to address those hazards. It will be used for training new employees and for the annual refresher training of employees. The plan addresses four (4) key areas of heat-illness prevention, monitoring weather and workplace conditions, implement heat illness prevention strategies, training, and planning for heat-related medical emergencies.

RESPONSIBILITIES:

All employees are responsible for protecting themselves from heat illnesses by following these guidelines for prevention and immediately reporting any signs or symptoms to his or her supervisor.

_____ is responsible for administering the provisions of this plan.

_____ is responsible for conducting initial training with new employees and for the annual refresher training.

_____ is authorized to call 911 for emergency medical services.

BACKGROUND:

Heat-related illnesses can happen if workplace activities in a hot environment overwhelm the body's ability to cool itself. (See Page 6). This becomes more likely if risk factors are present. (See Page 7) Examples include working in a hot environment without adequate access to water for rehydration, working in protective gear that does not allow air circulation across the skin, or working where the humidity is too high for sweat to evaporate

HEAT-RELATED ILLNESSES CAN BE PREVENTED BY:

- Shield radiant heat sources: Reduce radiant heat by insulating hot equipment and processes. Employ reflective or heat-absorbing materials to deflect radiant heat.
- Reduce steam leaks and humidity: Minimize the release of steam and lower humidity levels.
- Gradually increasing workloads and allow more frequent breaks during the first week of work so that employees become acclimatized to higher temperatures, especially those who are new to working in the heat or have been away from that work for a week or more.
- Encouraging employees to frequently drink small amounts of water before they become thirsty to stay hydrated. During moderate activity, in moderately hot conditions, employees should drink about 8 ounces of liquid every 15 to 20 minutes. Employees can monitor their hydration with a urine chart. Urine should be clear or slightly colored; dark urine is a warning sign! (See Page 8)
- Providing a buddy system where employees encourage each other to drink water, use shade to stay cool, and watch each other for symptoms of heat-related illness. If a worker must work alone, lone worker procedures such as frequent check-ins and a daily work plan are in place.
- Scheduling frequent rest periods with water breaks in shaded or air-conditioned recovery areas.
- Ensuring employees are aware of the signs of heat-related illnesses and encourage them to report immediately if they or their co-workers show symptoms.
- Monitoring weather reports daily (www.weather.gov, www.intellicast.com, www.wunderground.com) and rescheduling jobs with high heat exposure to cooler times of the day, if possible. When possible, scheduling routine maintenance and repair projects for the cooler parts of the year.

We will monitor weather reports and the heat index in our work area by using the following resources

☐ OSHA/NIOSH HEAT STRESS APP

☐ _____

Cool water is located throughout the work area. Type of water source and locations include:

_____

Shade or cooling area locations include:

_____

We have an acclimatization plan: Yes ☐ No ☐

We will encourage the use of light-colored, breathable clothing Yes ☐ No ☐

We will provide the following items:

- ☐ Evaporative accessories (cooling neck wraps, head bands, caps)
- ☐ Cooling vests designed to safely use ice packs.
- ☐ Hydration ice pops, misting tents, or _____
- ☐ EZ-Up Gazebo Tents/Canopies

TRAINING

These are the topics that our employees will be trained on prior to working in hot environments:

Environmental and personal risk factors

- Our procedures for heat illness prevention, including, but not limited to, our responsibility to provide water, heat index information (including the risks to experiencing a heat-related illness), shade/cooling areas, preventative rest breaks, and access to first aid
- The importance of frequent consumption of small quantities of water, up to 32 ounces per hour, when the work environment is hot, and employees are likely to be sweating more than usual in the performance of their duties
- The concept, importance, and methods of the acclimatization plan pursuant to the employer's procedures

  Note: the CDC recommends:

  > New workers spend 20% of their first day with exposure to heat. On each following day, new workers can be exposed to heat at 20% increments.
  >
  > For workers who have had previous experience with the job and are returning to work after a leave, the acclimatization regimen should be no more than a 50% exposure to heat on day 1, 60% on day 2, 80% on day 3, and 100% on day 4.
  >
  > The level of acclimatization each worker reaches is relative to the initial level of physical fitness and the total heat stress experienced by the individual.
- The different types, the common signs and symptoms, and the appropriate first aid and emergency response to the different types of heat illness. Training should include how heat illness may progress quickly from mild signs and symptoms to a serious and life-threatening condition.
- The importance for employees to immediately report signs and symptoms of heat illness in themselves or in others, directly to the employer or supervisor.
- The effects of nonoccupational factors (drugs, alcohol, obesity, etc.) on tolerance to occupational heat stress.

CHANGES TO PLAN

_____ will review and approve any changes to the plan.

_____shall review this plan at least bi-annually to determine if additional practices, procedures, or training needs to be implemented to improve heat-illness prevention measures. Workers shall be notified and trained, if necessary, in the new procedures.

A copy of this plan and all approved changes shall be maintained at _____

- Initial Plan Development Date: _____
- Revision Number: _____
- Date of Last Review: _____

EMPLOYEE TRAINING/STAFF SIGN-IN SHEET

COMPANY NAME: _____

TOPIC: **Heat-Related Illness Prevention**

PRESENTER (1) PRINTED NAME: _____

PRESENTER (2) PRINTED NAME: _____

PRESENTER'S #1 SIGNATURE: _____ **PRESENTER'S #2 SIGNATURE:** _____

DATE: _____ **TIME:** _____

SPECIFIC AREAS DISCUSSED/COVERED: **Environmental and personal risk factors for heat-related illnesses; Site specific heat illness prevention procedures (water, rest, shade, acclimatization); Signs and Symptoms of heat-related illnesses; Access to first aid.**

TRAINING DONE IN: ☐ **ENGLISH** ☐ **SPANISH** ☐ **OTHER** _____

EMPLOYEE NAME (print)	EMPLOYEE SIGNATURE

HEAT-RELATED ILLNESSES

- **Heat rash** is the most common health problem in hot work environments. It is caused by sweating and looks like a red cluster of pimples or small blisters. Heat rash usually appears on parts of the body that overlap or rub other parts of the body, such as in the groin area, under the arms or breasts, and in knee or elbow creases. If an employee has symptoms of heat rash, provide a cooler, less humid work environment, if possible. Advise the employee to keep the area dry and not to use ointments and creams that make the skin warm or moist, which can make the rash worse.

- **Heat exhaustion** can best be prevented by being aware of one's physical limits in hazardous environment on hot, humid days. The most important factor is to drink enough clear fluids (especially water, not alcohol or caffeine) to replace those lost to perspiration. Signs and symptoms of heat exhaustion typically include:
    - Profuse sweating
    - Weakness and fatigue
    - Nausea and vomiting
    - Muscle cramps (associated with dehydration)
    - Headache
    - Light-headedness or fainting; fainting or loss of consciousness is potentially serious and should be treated as a medical emergency.

  When you recognize heat exhaustion symptoms in an employee, you must intervene; stop the activity and move the employee to a cooler environment. Cooling off and rehydrating with water (or electrolyte-replacing sports drinks) is the cornerstone of treatment for heat exhaustion. If the employee resumes work before their core temperature returns to normal levels, symptoms may quickly return.

  If there is no intervention and the body's temperature regulation fails, heat exhaustion can rapidly progress to heat stroke, a life-threatening condition!

- **Heat stroke** requires an immediate emergency medical response. The person may stop sweating, become confused or lethargic, and may even have a seizure! The internal body temperature may exceed 106 degrees F. Signs and symptoms of heat stroke typically include:
    - Absence of sweating
    - Dry skin
    - Agitation or strange behavior
    - Dizziness, disorientation, or lethargy
    - Seizures or signs that mimic those of a heart attack

  Ensure that emergency responders are summoned immediately if heat stroke is suspected. While waiting for emergency responders to arrive, cool the employee; move the employee to an airconditioned environment or a cool, shady area; and help the employee remove any unnecessary clothing. Do not leave the employee unattended. Heat stroke requires immediate medical attention to prevent permanent damage to the brain and other vital organs that can result in death.

ENVIRONMENTAL AND PERSONAL RISK FACTORS

The following are environmental risk factors for heat illness:

- Air temperature above 90 degrees F.
- Relative humidity above 40 percent
- Radiant heat from the sun and other sources
- Conductive heat sources such as dark-colored work surfaces
- Lack of air movement
- Physical effort needed for the work
- Use of nonbreathable protective clothing and other personal protective equipment
- Lack of acclimatation to warmer temperatures

The following are personal risk factors for heat illness:

- Poor general health
- Dehydration
- Alcohol consumption
- Caffeine consumption
- Previous heat-related illness
- Use of prescription medications that affect the body's water retention or other physiological responses to heat such as beta blockers, diuretics, antihistamines, tranquilizers, and antipsychotics.

Heat index–associated protective measures for worksites

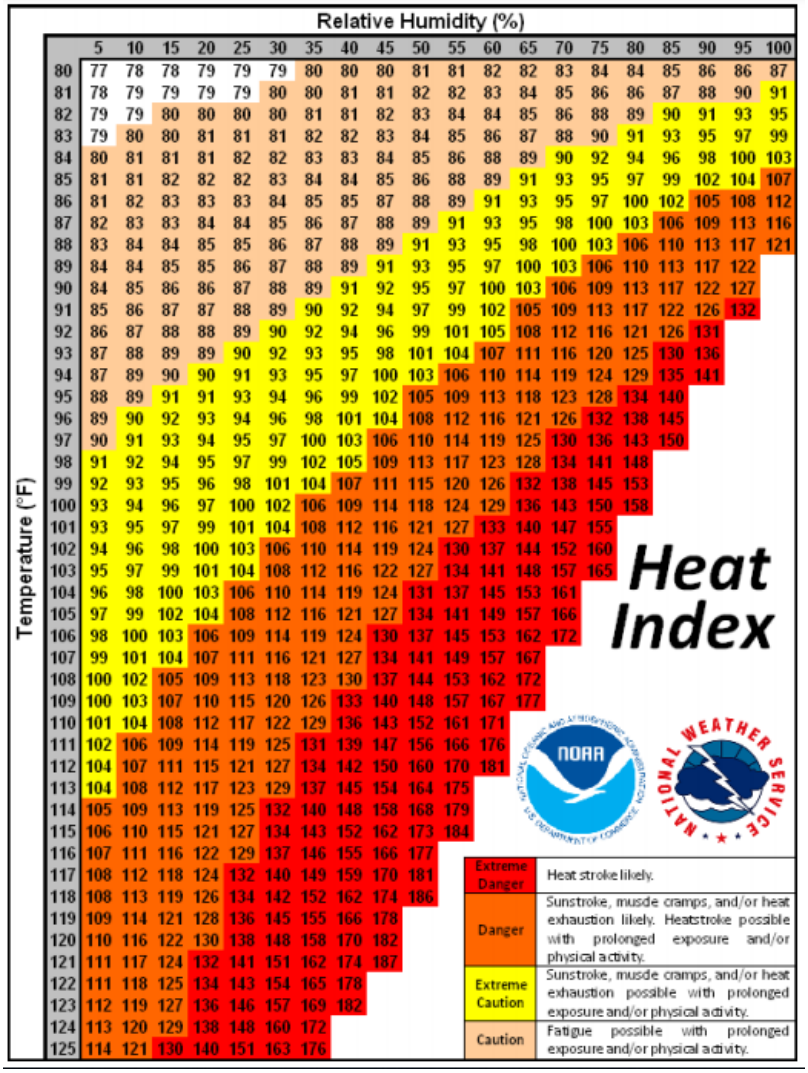
Heat index	Risk level	Protective measure
Less than 91°F (33°C)	Lower (caution)	Basic health and safety planning
91°F to 103°F (33°C to 39°C)	Moderate	Implement precautions and heighten awareness
103°F to 115°F (39°C to 46°C)	High	Additional precautions to protect workers
Greater than 115°F (46°C)	Very high to extreme	Even more aggressive protective measures

Adapted from OSHA [2012].

Additional information about protective measures mentioned in the above table can be found on OSHA's website.

Note: The presence of a radiant heat source may decrease the accuracy and usefulness of the above heat index.

HEAT INDEX:



Temperature (°F) \ Relative Humidity (%)	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
80	77	78	78	79	79	79	80	80	80	81	81	82	82	83	84	84	85	86	86	87
81	78	79	79	79	79	80	80	81	81	82	82	83	84	85	86	86	87	88	90	91
82	79	79	80	80	80	80	81	81	82	83	84	84	85	86	88	89	90	91	93	95
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124	113	120	129	138	148	160	172													
125	114	121	130	140	151	163	176													

Heat Index

Extreme Danger	Heat stroke likely.
Danger	Sunstroke, musde cramps, and/or heat exhaustion likely. Heatstroke possible with prolonged exposure and/or physical activity.
Extreme Caution	Sunstroke, musde cramps, and/or heat exhaustion possible with prolonged exposure and/or physical activity.
Caution	Fatigue possible with prolonged exposure and/or physical activity.

Urine Chart