

Heat Stress and Prevention

1.1 PURPOSE

- 1.1.1 The purpose of this policy is to aid in prevention of health and safety problems arising from exposure to excessive temperatures at TERRY R PITT CONSTRUCTION sites.

1.2 RESPONSIBILITIES

- 1.2.1 All supervisors, when applicable, will receive a copy of this policy along with verbal instructions on dealing with treating an employee with heat stress symptoms. Supervisors are responsible for monitoring conditions and implementing this policy throughout the work shift.
- 1.2.2 Before any task involving heat stress hazards can begin, supervisors must take personnel factors into consideration. Factors include, but are not limited to:

- 1.2.2.1 Age
- 1.2.2.2 Weight/Fitness
- 1.2.2.3 Prior heat related illness
- 1.2.2.4 Drug/alcohol use

- 1.2.3 When filling out JSAs, supervisors must include the applicable heat stress hazards and how they will be properly handled.

- 1.2.3.1 Allow employees to work at a slower rate
- 1.2.3.2 Allow regular rest breaks, taking into account the heat tolerance of the worker
- 1.2.3.3 Provide workers with shaded areas while they are on break. The shaded area will either be open air or will be ventilated for cooling
- 1.2.3.4 Reschedule work so heavy tasks are performed at the coolest time of the day
- 1.2.3.5 Rotate employees engaged in heavier tasks
- 1.2.3.6 Provide alternate work
- 1.2.3.7 Use fans or blowers to provide ventilation

1.3 HAZARDS

- 1.3.1 Have procedures to control the effects of environmental factors that can contribute to heat related illness. Environmental factors that contribute to heat stress include, but are not limited to:
 - 1.3.1.1 Air temperature of 90°F or higher
 - 1.3.1.2 Radiant temperature of surroundings; direct sun
 - 1.3.1.3 Humidity above 60%
 - 1.3.1.4 Low air movement/circulation

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- 1.3.2 Physical factors that contribute to heat illness are taken into consideration before performing a task. The body always generates internal heat, but the amount of heat that stays stored in the body depends on:
 - 1.3.2.1 Surroundings
 - 1.3.2.2 Level of physical activity
 - 1.3.2.3 Type of work
 - 1.3.2.4 Time spent working
 - 1.3.2.5 Recovery time between work periods
 - 1.3.2.6 Clothing color, weight, and breathability
 - 1.3.2.7 Carbonated beverages or beverages containing caffeine (coffee, tea, or cola)
 - 1.3.2.8 Loss of body fluid, dehydration, minimal water intake during activities

1.4 SYMPTOMS

- 1.4.1 Warning signs of mild heat stress include decreased energy, slight loss of appetite, nausea, and lightheadedness.
- 1.4.2 Moderate symptoms include heavy sweating, muscle cramps, thirst, faintness, giddiness, and confusion.
- 1.4.3 Serious signs of heat stress that require immediate medical attention are throbbing headache, mental confusion, irritability, combativeness, rapid heartbeat, difficulty breathing, dry/hot skin (no sweating), vomiting, diarrhea, muscle cramps, staggering, and possible collapse.

1.5 CONTROLS/TREATMENT

- 1.5.1 Engineering controls such as air conditioning, with cooled air and increased airflow should be employed. TERRY R PITT CONSTRUCTION provides worker training and during their first few days in warm or hot environments, supervisors will inform workers of the following heat illness prevention measures.
- 1.5.2 Know the symptoms of heat stress disorders so that appropriate action can be taken if experienced by the worker or a coworker.
- 1.5.3 Drink 5 - 7 ounces of fluid, (water, Gatorade, or other heat stress drink), every 15-30 minutes when in extreme heat and humidity situations even if not thirsty. Restrict consumption of alcoholic, caffeinated, or carbonated beverages. TERRY R PITT CONSTRUCTION will utilize methods (Gatorade or other heat stress drink) to provide salt replacement for affected employees exposed to hot climates that have the potential to cause heat related illnesses.
- 1.5.4 Employees will have access to potable drinking water. Where it is not plumbed or continuously supplied, it will be provided in sufficient quantity throughout the work shift.

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- 1.5.5 Wear light colored clothing to reflect heat away from the body. Wear loose fitting clothing when practical (not working with rotating machinery) to allow a good airflow over the skin. Protective clothing and equipment suitable for work in extreme heat will be provided where available.
- 1.5.6 When any heat-related illness symptom is present, first aid must promptly be provided to the affected worker. Lower the body temperature as fast as possible.
 - 1.5.6.1 Move into the shade.
 - 1.5.6.2 Loosen or remove clothing and boots.
 - 1.5.6.3 Cool the body by fanning; pouring cool, not cold, water onto the skin.
 - 1.5.6.4 Elevate legs and massage limbs.
- 1.5.7 Acclimatization is the ability to perform a maximum amount of strenuous work in the heat by gradually getting the body used to the worksite climate. Physical work in the heat is necessary for full acclimatization, but it should consist of increasingly longer work periods each day, alternating with rest or lighter work. TERRY R PITT CONSTRUCTION will provide affected employees with an appropriate period of acclimatization exposed to heat stress environments.
- 1.5.8 Follow scheduled work/rest cycles that keep any individual from overworking. In this case, rest means minimal activity, not stopping work completely. Workers may alternate light and heavy work, indoor and outdoor work, etc.
 - 1.5.8.1 Duties may also be rotated among several workers to protect them from heat and workload can be adjusted based on body size or physical strength.
- 1.5.9 Seek medical help if the symptoms persist. Victims of heat exhaustion must be examined by a physician and should not participate in any strenuous activity for the rest of the day.
- 1.5.10 Do not leave a worker with heat illness symptoms alone.

1.6 TRAINING

- 1.6.1 Heat disorders are preventable with proper planning, supervision, and training. Train workers to cope with the hazards of heat stress on the following topics:
 - 1.6.1.1 Understanding the effects of heat stress
 - 1.6.1.2 Knowing the symptoms and treatment for heat stress
 - 1.6.1.3 Taking personal precautions against heat disorders
- 1.6.2 Supervisors will be trained prior to supervising employees, when applicable, on providing proper treatment to an employee dealing with heat stress symptoms.
- 1.6.3 Supervisors will be trained in TERRY R PITT CONSTRUCTION's heat illness procedures to prevent heat illness and in the procedures to follow when a worker exhibits symptoms consistent with possible heat illness, including emergency response procedures. Supervisors will be trained on signs and symptoms of heat related illnesses. The training will be preventative in nature.