

### *SWP Purpose*

The purpose of this SWP is to prevent heat stress in workers through identifying when this may occur, how to recognize the symptoms, and how to best control the hazards.

### *Scope*

This SWP applies to all workers and applies when the Humidex is above 45 (“dangerous”, as per attached Humidex Index; Canadian Centre for Occupational Health and Safety). If workers are wearing protective clothing (e.g. Flame Retardant or other coveralls (incl. Tyvek/Nomex), the risk may occur at lower humidex levels (e.g. “great discomfort”, 40-45 in attached Humidex Index).

### *Responsibilities*

Responsibilities apply to the Trip Manager/Volunteer Leader, all workers, and the Health and Safety Committee.

It is the responsibility of the Trip Manager/Volunteer Leader to

- Evaluate the potential for heat stress associated with the day’s work, discuss, and apply controls; this should be documented in the daily tailgate meeting
- Educate/remind workers of the symptoms of heat stress
- Monitor workers for symptoms and encourage communication
- Provide drinking water and shade
- **Prepare Incident Report if worker experiences heat exhaustion or heat stroke**

It is the responsibility of the Workers to

- Be aware of the hazards and symptoms of heat stress
- Be responsible in maintaining personal and crew health
- Monitor yourself and fellow crew members for symptoms and communicate to Crew Lead if any symptoms noted

It is the responsibility of the Safety Committee to

- Maintain this Safe Work Practice
- Perform periodic audits to assess that these requirements/SWP are being acted upon.
- Reinforce that recommended controls are to be implemented and used appropriately.

### *Hazards*

Heat stress can be subdivided into four ‘disorders’, each with unique symptoms and first aid treatments, as follows:

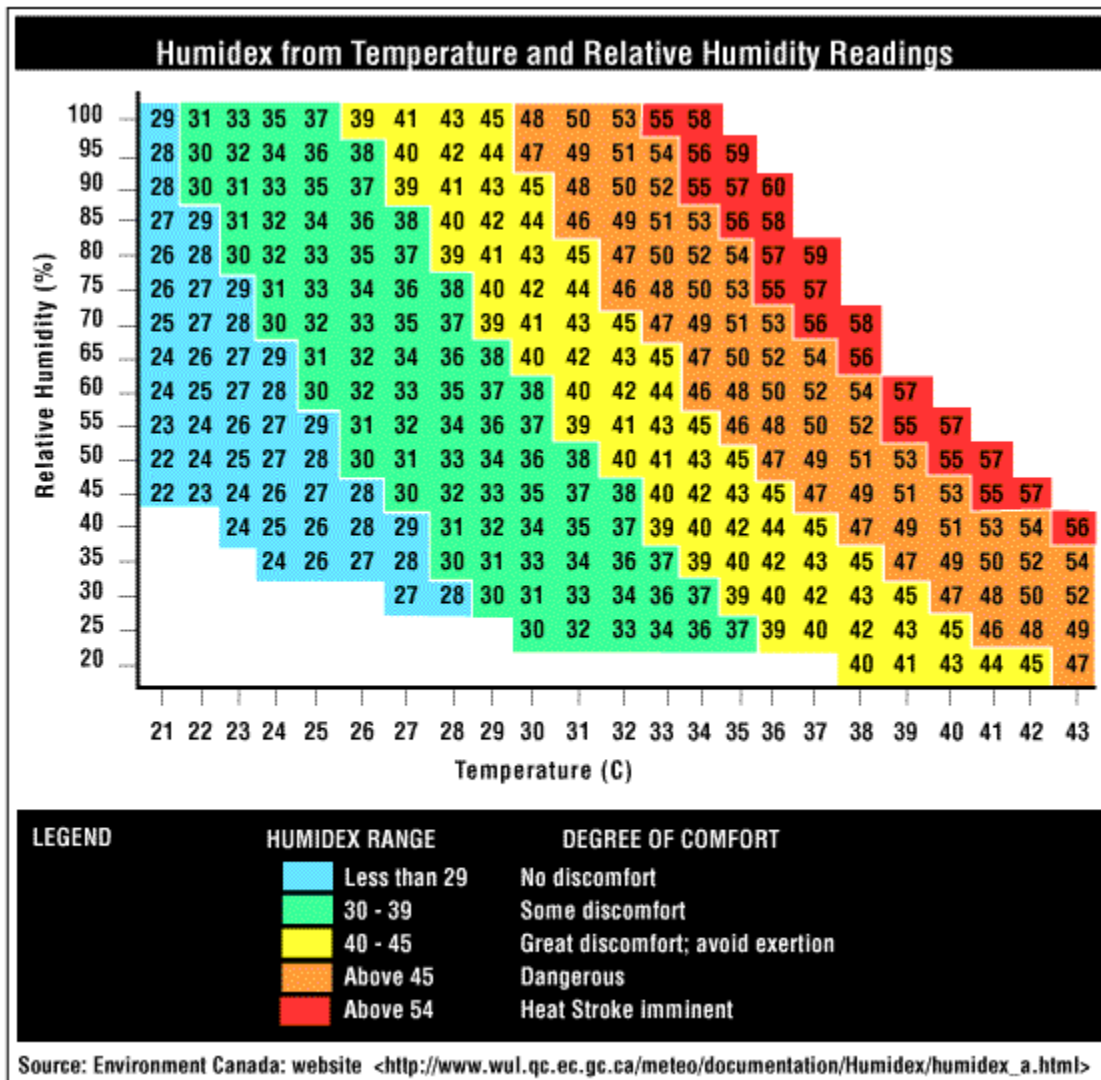
- **Heat Rash:** occurs in hot and humid environments, particularly in situations where sweat does not evaporate easily; results in red skin and, in severe cases, infection can occur. First aid treatment includes removing individual from the sun/into shade, allowing skin to dry, and washing skin with cool water.

- Heat Cramps: are painful muscle cramps caused by losing too much salt through sweating and occurs typically in the most frequently or heavily used muscles. Cramps are more typical later in a working day or even after muscles have cooled. First aid includes moving the individual to a cooler, shaded location; washing/sponging skin with cool water. However, following this move, watch for shivering or feeling cold. Provide water, juice, 'sport drinks' if individual is not feeling nauseous.
- Heat Exhaustion: may include heavy sweating, weakness, cool/pale/clammy skin, fainting, vomiting; caused by inadequate fluid intake and/or salt intake. First aid includes removing individual from the heat/sun and into the shade; lying down; washing/sponging skin with cool water/cloths; providing some water/fluids unless vomiting. Continuous vomiting indicates a need to seek medical attention.
- Heat Stroke: indicates a high body temperature, with symptoms including hot, dry skin, possibly red/mottled/bluish, rapid pulse, possible fainting/loss of consciousness, mental confusion, convulsions. First aid includes moving individual to a cooler location and cooling quickly using ice packs/wet cloths/air conditioning. Fluids/medications are not suggested. **Heat stroke is a medical emergency and medical attention is required.** First aid is only for immediate response.

### Controls

Prevention is the best control. Consider and use the following controls:

- Provide shade at work site, including umbrellas, awnings, tarps.
- Provide drinking water sufficient for crew for length of expected day, including contingencies. Encourage workers to carry drinking water on their person for frequent drinking rather than water only in their day pack.
- Alternate work and rest periods and increase length or rest periods as temperature/humidity increases
- Alter work schedule so that most intense work is done during cooler times of the day or stop work and reschedule for a cooler day
- Stop work for crew if heat stress symptoms are noted
- Cooling vests can be used to reduce risks of heat stress
- Monitor the crew for symptoms and remind crew to drink fluids
- Check in regularly with any crew member who may be working alone
- Recommend using sunscreen, hats, long-sleeved light clothing



### *Training*

Workers must be educated regarding the risks, symptoms, and controls, as identified in this SWP. Appropriate number of first aiders relative to crew size must be on site. Ensure that crew members are familiar with emergency communication equipment on site to allow for quick response if a heat stress incident occurs.

### *Resources, References, Definitions*

[https://www.ccohs.ca/oshanswers/phys\\_agents/humidex.html](https://www.ccohs.ca/oshanswers/phys_agents/humidex.html)

### *Revision History*

<u>Revision</u>	<u>Date</u>	<u>Description of Change</u>	<u>Personnel Involved</u>
REV 0	Feb 2020	New SWP	D Yanchula
Rev 1	Feb 2023	Changes in BOLD	D Yanchula