

## **Heat Stress Policy**

### **Purpose**

Heat exposure may occur in many workplaces. For outdoor employees, direct sunlight is the main source of heat. Humidity in workplaces also contributes to heat stress. This policy was designed to outline actions the Township of North Huron will take to protect employees from illness during extreme heat working conditions.

The Township of North Huron will make all reasonable efforts to protect their employees from conditions that might cause heat stress.

The Township of North Huron recognizes the potential problems caused by high temperatures in the workplace.

The Department Heads/Supervisors of outdoor employees will monitor the temperature and humidity where the employees are working on days where excess heat and humidity are forecasted/observed.

### **Definitions**

- **Heat Stress** – a general name for several medical conditions such as heat exhaustion, heat cramps, heat stroke caused by working in areas with extreme heat.

### **Responsibilities**

#### **Department Heads/Supervisor**

- Educate/communicate with employees, the signs and symptoms of heat stress and how to react if they themselves or another employee appears to be experiencing difficulty working in the heat.
- Remind employees to drink cool water frequently and not just when they are thirsty.
- Encourage employees to wear clothing that is loose fitting, tight woven. Encourage the use of a head covering and the clothing be light in colour to reflect the heat rather than absorb it.
- Ensure employees become acclimatized to the heat.
- Provide air conditioned rest areas and cool work areas where possible.
- Where possible, increase air movement by opening doors or windows.



- If employees must work outside, caution employees to avoid direct sunlight. Encourage employees to apply sunscreen to all sun exposed areas.
- Assist with the investigation of heat stress related events.
- Implement recommendations and corrective actions that are determined when heat stress investigations take place.

### **Employee**

- Participate in the training/communication of heat stress.
- When extreme hot weather conditions exist, drink water every 20 minutes, not just when thirsty.
- Wear appropriate clothing and head covering.
- Follow Department Head/Supervisor recommendations for becoming acclimatized to the heat.
- Avoid direct sunlight as possible.
- If you have pre-existing medical conditions that may potentially contribute to heat stress – immediately notify your Department Head/Supervisor.
- Notice the signs and symptoms of heat stress on yourself and others and immediately notify your Department Head/Supervisor.
- Apply sunscreen when applicable.
- Talk to your Department Head/Supervisor about any concerns you may have regarding heat stress.

### **Procedure**

- When an Environment Canada Humidex issues an advisory (air temperature exceeding 30 degrees Celsius and Humidex exceeding 40 degrees Celsius), the following contingency plan will be put into place. The goal is to prevent an employee's core temperature from rising above 38 degrees Celsius. This may include measures such as:
  - Engineering Controls:
    - Increase air movement with fans.
    - Provide air-conditioned rest areas.
    - Provide cool work areas.
  - Administrative Controls:
    - Increase the length or frequency of breaks.
    - Review job tasks being conducted and determine if it is possible to reschedule jobs to another time in the day when the temperature is reduced



or where possible consider reduction of job task requirements to help reduce overexposure or overexertion in hot temperatures.

- As able, provide cool drinking water near employees and remind them to drink one cup approximately every 20 minutes.
- Train employees to recognize the signs and symptoms of heat stress and start a “buddy system” to help ensure symptoms are noticed. People are not likely to notice their own symptoms.
- Investigate heat related incidents.
- Personal Protective Equipment:
  - Light summer clothing should be worn to allow free air movement and sweat evaporation.
  - Shirts may be short sleeved.
  - When outdoors, other clothing which will protect the skin from direct sunlight.
- The plan will be reviewed and monitored with all employees on day(s) where Heat Stress is a factor in the Workplace.
- Employees experiencing symptoms of heat stress (see below for examples) or witnessing a fellow employee experiencing the symptoms of heat stress, must report to their Department Head/Supervisor immediately to obtain the proper first aid/medical attention as required.
- Generally, the hot weather hazards are between May 1 and September 30 of each year.
- For Humidex Readings in your area...listen to local weather station and/or go to [http://www.weatheroffice.ec.gc.ca/canada\\_e.html](http://www.weatheroffice.ec.gc.ca/canada_e.html)

<b>Humidex 1</b>	<b>Response</b>
<b>25 – 29</b>	supply water to workers on an “as needed” basis
<b>30 – 33</b>	post Heat Stress Alert notice; encourage workers to drink extra water; start recording hourly temperature and relative humidity
<b>34 – 37</b>	post Heat Stress Warning notice; notify workers that they need to drink extra water; ensure workers are trained to recognize symptoms
<b>38 – 39</b>	work with 15 minutes relief per hour can continue; provide adequate cool (10-15°C ) water; at least 1 cup (240 mL) of water every 20 minutes worker with symptoms should seek medical attention
<b>40 – 41</b>	work with 30 minutes relief per hour can continue in addition to the provisions listed previously;
<b>42 – 44</b>	if feasible, work with 45 minutes relief per hour can continue in addition to the provisions listed above.
<b>45 or over</b>	only medically supervised work can continue



### Heat Stress Hazards – Signs and Symptoms

	Cause	Symptoms	Treatment	Prevention
<b>Heat Rash</b>	Hot humid environment; plugged sweat glands.	Red bumpy rash with severe itching.	Change into dry clothes and avoid hot environments. Rinse skin with cool water.	Wash regularly to keep skin clean and dry.
<b>Sunburn</b>	Too much exposure to the sun.	Red, painful, or blistering and peeling skin.	If the skin blisters, seek medical aid. Use skin lotions (avoid topical anesthetics) and work in the shade.	Work in the shade; cover skin with clothing; apply skin lotions with a sun protection factor of at least 15. People with fair skin should be especially cautious.
<b>Heat Cramps</b>	Heavy sweating drains a person's body of salt, which cannot be replaced just by drinking water.	Painful cramps in arms, legs or stomach, which occur suddenly at work or later at home. Heat cramps are serious because they can be a warning of other more dangerous heat-induced illnesses.	Move to a cool area; loosen clothing and drink cool salted water (1 tsp. salt per gallon of water) or commercial fluid replacement beverage. If the cramps are severe or don't go away, seek medical aid.	Reduce activity levels and/or heat exposure. Drink fluids regularly. Employees should check on each other to help spot the symptoms that often precede heat stroke.
<b>Fainting</b>	Fluid loss and inadequate water intake.	Sudden fainting after at least two hours of work; cool moist skin; weak pulse.	GET MEDICAL ATTENTION. Assess need for CPR. Move to a cool area; loosen clothing; make person lie down; and if the person is conscious, offer sips of cool water. Fainting may also be due to other illnesses.	Reduce activity levels and/or heat exposure. Drink fluids regularly. Employees should check on each other to help spot the symptoms that often precede heat stroke.
<b>Heat Exhaustion</b>	Fluid loss and inadequate salt and water intake causes a person's body's cooling system to start to break down.	Heavy sweating; cool moist skin; body temperature over 38°C; weak pulse; normal or low blood pressure; person is tired and weak, and has nausea and vomiting; is very thirsty; or is panting or breathing rapidly; vision may be blurred.	GET MEDICAL AID. This condition can lead to heat stroke, which can kill. Move the person to a cool shaded area; loosen or remove excess clothing; provide cool water to drink; fan and spray with cool water.	Reduce activity levels and/or heat exposure. Drink fluids regularly. Employees should check on each other to help spot the symptoms that often precede heat stroke.
<b>Heat Stroke</b>	If a person's body has used up all its water and salt reserves, it will stop sweating. This can cause body temperature to rise. Heat stroke may develop suddenly or may follow from heat exhaustion.	High body temperature (over 41°C) and any one of the following: the person is weak, confused, upset or acting strangely; has hot, dry, red skin; a fast pulse; headache or dizziness. In later stages, a person may pass out and have convulsions	CALL AMBULANCE. This condition can kill a person quickly. Remove excess clothing; fan and spray the person with cool water; offer sips of cool water if the person is conscious.	Reduce activity levels and/or heat exposure. Drink fluids regularly. Employees should check on each other to help spot the symptoms that often precede heat stroke.



### **Indirect Heat-Related Health Effects**

- Reduced Work Performance: tired, fatigued employees perform with reduced accuracy, efficiency.
- Increased Accidents: tired, fatigued employees are more susceptible to accident and injury.
- Reproductive Problems: heat has been shown to reduce both male and female fertility and can be a problem for the fetus.
- Heart/Lung Strain: if you already have heart, lung, kidney or circulatory problems; heat stress is an added strain on your body which in severe heart, lung, kidney or circulatory problems; heat stress is an added strain on your body which in severe situation may precipitate serious episodes of acute situation may precipitate serious episodes of acute problems.

### **Training**

Training will be conducted regularly and as needed during hot weather months. The Township of North Huron will communicate this policy and review with employees the above Heat Stress Hazards – Signs and Symptoms.

### **Required Forms**

N/A

### **Evaluation**

This policy will be reviewed annually.

### **Revision History of this Policy**

N/A

### **Legislation/Standards/Regulations**

Ontario Occupational Health and Safety Act, R.S.O. 1990  
Industrial Regulation 851