**Roles & Responsibilities Example – Heat Stress Safety Program for Outdoor Workers**

Sun Safety at Work Canada recognizes that Roles and Responsibilities are the heart of an internal responsibility system that is effective in mitigating health and safety hazards, including heat stress. If everyone does their part, the program is more effective and fewer exposures result. As such, we have assembled an exhaustive list of roles and responsibilities that workplaces may adopt in whole or in part, recognizing that in some organizations additional responsibilities may be necessary to ensure the effectiveness of your particular program.

If a workplace is developing a sun safety program (where solar UV safety and heat stress safety are addressed together), the following list of roles and responsibilities should be read in conjunction with the *Roles and Responsibilities Example – Solar UV Safety Program* resource to compile a list of roles and responsibilities for sun safety.

**The Employer will:**

Maintain a Heat Stress Safety Program for Outdoor Workers (which is based on a policy for heat stress) and train all employees on the Policy and Program. This includes an annual, or as needed, review of the policy and procedures.

Reference assigned responsibilities and the procedures to be followed to reduce exposure to the sun in the Heat Stress Safety Policy and Program.

Ensure responsibilities and procedures are carried out to meet the requirements of the Heat Stress Safety Program for Outdoor Workers.

Provide annual heat stress safety training to all outdoor workers.

Integrate heat safety information into new staff orientations.

Provide control and protection measures as described in the Heat Stress Safety Program for Outdoor Workers.

Provide suitable shade structures for work activities to reduce thermal impact from the sun.

Implement incentives for heat safe behaviours.

Ensure the Heat Stress Safety Policy and Program is conveyed to any contractor(s) with the expectation that the policy and program be followed.

Encourage managers, supervisors and employees of the organization to act as positive role models in all aspects of heat safe behaviour.

Provide the motivation and resources necessary to make the heat stress safety program effective.

**The Health and Safety Committee will:**

Approve or make recommendations flowing from the annual review of the policy and procedures.

Promote heat safe behaviours, for work and at home activities, to all employees through various methods such as training, posters and brochures.

Approve training and resources to Supervisors for toolbox/safety talks.

Encourage all workers to have a healthy lifestyle to reduce their risk of heat stress.

Track and investigate heat exposure incidents.

Evaluate effectiveness of Heat Stress Safety Program (including policy and procedures) and make recommendations to continually improve them.

**Supervisors will:**

Follow the Heat Stress Safety Program (including policy and procedures).

Monitor worksites for heat/humidex levels daily during heat alert/high humidex periods and implement response actions in accordance with *Heat Stress Daily Assessment and Response Procedure*. This includes posting *Heat Stress Alerts* and *Heat Stress Warnings* when appropriate.

Utilize Heat Stress Risk Assessments for jobsites, such as the *Heat Stress Risk Assessment for Outdoor Workers – Daily Monitoring Plan*, and completing appropriate records (such as *Heat Stress Risk Assessment for Outdoor Workers – Daily Assessment Records*).

Ensure new employees are aware of the Heat Stress Safety Program and practice heat safety.

Remind staff as opportunity presents to stay hydrated and seek shade during job tasks and breaks.

Make cool water supply easily accessible.

Ensure that all employees are wearing/using appropriate personal protection (as described in the Heat Stress Safety Program).

Allow employees to acclimatize to hot working environments; staff should start out gradually and build up to optimum work level over a period of days. Implement acclimatization procedures as outlined in the Heat Stress Safety Program.

Schedule more physically demanding tasks, before 11am or after 3pm, in the cooler times of the day on high humidex days when possible.

Rotate people through hot, heavy demand jobs, if possible.

Post and share daily Humidex with outdoor workers.

Ask how workers are feeling. Supervisors should monitor workplace temperature and humidity and check workers' condition. Allow workers to stop their work if they become extremely uncomfortable.

Implement work/rest cycle regimen in accordance with procedures outlined in the Heat Stress Safety Program.

Allow employees to self-pace their workloads during high heat stress periods and in accordance with procedures outlined in the Heat Stress Safety Program.

Reduce work for anyone at risk. Supervisors should use common sense in determining fitness for work in hot environments. Some factors to consider: age, poor conditioning, pregnancy, previous heat injuries, certain medical conditions, lack of acclimatization.

Be vigilant for signs and symptoms of heat stress. Will ensure that first aid is provided when necessary and will arrange emergency medical aid when appropriate.

Include heat safety into toolbox/safety talks on a monthly basis between April and October.

Investigate all incidents of overexposure to heat and take corrective action.

Report all incidents of overexposure to heat and take corrective action.

**Employees will:**

Be familiar with the heat stress policy and procedures in the workplace. Policies and procedures usually include guidelines on acclimatization and work/rest cycles.

Acclimatize. It takes time to adjust to working in heat. Work with your supervisor to gradually increase your work load and heat exposure in accordance with the acclimatization procedures outlined in the Heat Stress Safety Program.

*Supplementary: Acclimatization is usually achieved after 7 days, but it can take up to three weeks, depending on the worker. If you are not working in a hot environment for 7 consecutive days, you are no longer considered acclimatized. You should begin the acclimatization process again.*

*Rationale: The body will adapt to working in hot environments if it is given a chance to gradually get used to the new conditions. This process, known as acclimatization, allows the body to modify its own functions to better cope with heat stress and to remove excess heat more efficiently. Undergoing an acclimatization process benefits the body by keeping the heart rate and core body temperature lower, sweating sooner and more, and lowering the amount of salt in sweat.*

Take more rest breaks when doing heavier work, and in high heat and humidity. Take breaks in the shade or in air conditioned buildings or vehicles.

Follow the work/rest cycle regimen as directed by your supervisor.

If possible, schedule work to minimize heat exposure. Do the hardest physical work during the coolest part of the day.

Encourage your co-workers to practice heat safe behaviour.

Drink water frequently. Drink enough water that you never become thirsty. During moderate activity in moderately hot conditions, workers should drink about 1 cup of water every 15-20 minutes.

*Supplementary: Cool water is the best. Juices and/or non-caffeine sport drinks are also good (juices contain energy restoring glucose). Avoid caffeine and alcohol. These make the body lose water and increase the risk of heat stress.*

*Rationale: The body naturally sweats to cool itself. Sweating can use up a significant amount of fluid, which must be replace continuously throughout the workday. In fluid is not regularly replaced, a worker will become dehydrated, increasing their risk for heat stress.*

Eat healthy. You can and should replace essential elements lost during sweating. Eat a balanced diet rather than taking salt tablets or drinking expensive sports drinks.

*Supplementary: although the average North American diet contains enough salt for most work conditions, working in hot environments can cause salt deficiencies. However, acclimatized workers lose relatively little salt in their sweat.*

*Rationale: salt tablets are not recommended for the average workers because salt does not enter the body system as fast as water or other fluids. Too much salt can cause higher body temperatures, increased thirst and nausea. Workers on salt-restricted diets should discuss the need for supplementary salt with their doctor.*

Wear/use personal protection as required by their employer. This includes a wide-brimmed hat or hard hat with brim attachment and neck flap, and light-coloured, loose-fitting clothing made of breathable fabric. Avoid non-breathable synthetic clothing.

*Rationale: Loose-fitting clothing made from breathable fabrics allows air to pass through. Air passing over the skin will help cool the body by evaporating the sweat from the skin.*

*Rationale: Large brimmed hats worn on hot sunny days provide shade for the head, face and neck area.*

*Supplementary: If safety headgear such as a hard hat is required, attaching a piece of light-coloured fabric to the back and side rim of the hat will provide shade for much of the neck area. Items attached to hard hats must not affect the integrity of the hard hat – for example, do not use glue or drill holes.*

Be aware that some protective clothing or personal protective equipment may increase the risk of heat stress.

*Supplementary: wearing long sleeves and pants does not raise your core body temperature, compared to wearing short sleeves and shorts.*

If necessary, consider also wearing specialized heat-protective clothing to help keep your body temperature down. Heat-protective clothing that may be useful for outdoor workers includes temperature-controlled clothing such as air-cooled suits, water-cooled suits, and ice-cooled waistcoats. Refer to Heat Stress Safety Program.

*Rationale: cooling wear clothing may be required in very hot environments and/or for outdoor workers with personal protective equipment that is not breathable, loose-fitting, or well-ventilated.*

Wash clothes regularly and maintain good person hygiene.

Know signs and symptoms of heat illnesses. Watch out for heat-stress symptoms in yourself and your coworkers. Report heat symptoms early.

Use the buddy system to monitor one another as you may not see or feel the effects.

*Supplementary: heat stress symptoms include rash, cramping, fainting, excessive sweating, headache, cool moist skin, red skin, increased body temperature, weakness, nausea and vomiting, excessive thirst, rapid breathing, fast or weak pulse, and blurry vision.*

Report any instances of heat stress to their supervisor.

Know what to do in an emergency. The plan should include procedures for providing affected workers with first aid and arranging for medical aid.

Remember that your physical condition can reduce your ability to deal with the heat. Age, weight, fitness, health conditions (heart disease or high blood pressure), recent illness, or medications can all affect your ability to withstand high temperatures.

If you are on medication, read the label or talk to your doctor to understand how it might cause your body to react to the sun and heat.

Avoid eating large meals before working in hot environments.

**Constructors and Subcontractors will:**

Comply with the Heat Stress Safety Program (including policy and Procedures).

Monitor subcontractors for compliance with the Heat Stress Safety Program (including policy and Procedures).

Monitor site conditions for heat stress in their area and implement prevention/protection measures as appropriate and in accordance with the Heat Stress Safety Program.

Monitor heat stress safety performance and take corrective action as necessary.

Visit sunsafetyatwork.ca for more information. This resource was prepared by Keith McMillan and Dr. Thomas Tenkate. Production of this resource has been made possible through financial support from Health Canada through the Canadian Partnership Against Cancer.