

Health and Safety Standard

WORKING IN HOT AND COLD CONDITIONS STANDARD

1. PURPOSE

This standard supports the SaskPower Health, Safety and Environment Policy and establishes the requirements for managing the risks associated for employees working in thermal extremes.

2. SCOPE

This standard outlines the minimum requirements that shall be met or exceeded by SaskPower workers and contractors. Failure to comply may result in injuries, damage to equipment and property, environmental harm, performance management or any combination thereof.

The use of the word “shall” within this standard denotes a mandatory action, whereas the use of the word “should” or “may” denotes a recommended action.

3. DEFINITIONS

The following definitions apply to this standard:

Acclimatized – is the process in which an individual adjusts to a gradual change in environment.

Heat Stress – is any set of environmental and workload conditions, which places excessive demands on the normal regulation of body temperature.

Wind Chill - refers to the combined chilling effect of wind and temperature on humans.

4. REQUIREMENTS

All normal work will be performed within Occupational Health and Safety, Hot Conditions Guidelines and Cold Conditions Guidelines for outside work and in compliance with Saskatchewan Occupational Health & Safety legislation.

A plan for working in hot or cold conditions begins with the identification and assessment of exposure hazards in the workplace and providing appropriate controls.

4.1. IDENTIFYING HEAT EXPOSURE HAZARDS

- All tasks, assignments and circumstances where heat exposure hazards, such as heat stress exist shall be identified and documented in a hazard/aspect and risk assessment (HARA).

4.2. HEAT EXPOSURE CONTROL METHODS

- Where practicable heat exposure hazards shall be removed. Where heat exposure hazards cannot be removed, controls shall be used to reduce exposure.
 - Engineering controls are the preferred controls where practicable and include:
 - Isolation, relocation, redesign or substitution to remove heat sources from work areas.
 - Use available Air Conditioning Systems.
 - Use local exhaust to remove heat from work processes.
 - Use screens, awnings or other appropriate material to shield or block sources of heat.
 - Insulate hot equipment and surfaces to contain radiant heat.
 - Maintain equipment so that heat created by malfunction is eliminated.
 - Use labour saving devices to reduce hot work.
 - Automate or replace hot processes if practicable.
 - Administrative controls include:
 - Increasing the frequency and duration of cool down breaks according to Working Under Hot Conditions Guideline Saskatchewan Occupational Health and Safety document.
 - Using additional employees for the job.
 - Ensuring that employees and supervisors understand the signs and symptoms of heat exposure.
 - Rotating employees in and out of work areas.
 - Pacing the work to avoid overheating.

- Allowing employees enough time to get adjusted to heat before assuming a full work load.
- Provide adequate supplies of drinking water or other cool liquids and encourage workers to drink small amounts frequently.
- Personal Protective Equipment (PPE) shall be used where engineering and administration controls do not effectively reduce the heat exposure hazard:
 - PPE shall be selected where hazard/aspect and risk assessment identify the requirement.
 - PPE shall be arc rated and/or high visibility where hazard/aspect identification and risk assessment identify the requirement.
- It is preferable to establish layers of protection by combining the three control types.

4.3. IDENTIFYING COLD EXPOSURE HAZARDS

- All tasks, assignments and circumstances where cold exposure hazards, such as wind chill exist shall be identified and documented in a hazard/aspect and risk assessment (HARA).

4.4. COLD EXPOSURE CONTROL METHODS

- Where practical cold exposure hazards shall be removed and where cold exposure hazards cannot be removed controls shall be used to reduce exposure.
 - Engineering controls are the preferred controls where practicable and include:
 - Equipment design such as covering metal handles/bars with thermal insulating material or designing machines and tools so that they can be operated without having to remove mittens or gloves.
 - Heating systems.
 - Use of enclosures and barriers to block winds that will deflect heat.
 - Administrative controls include:
 - Using additional employees for the job.
 - Ensuring that all employees and supervisors understand the signs and symptoms of cold exposure.
 - Rotating employees in and out of work areas.
 - Pace the work to avoid sweating.
 - Allowing employees enough time to get acclimatized to cold and protective clothing before assuming a full work load.

- Increasing the frequency and duration of warm up/rest breaks according to Cold Condition Guideline Saskatchewan Occupational Health and Safety.
- PPE shall be used where engineering and administration controls do not effectively reduce the cold exposure hazard:
 - Appropriate winter wear shall be worn where needed.
 - Winter wear shall be arc rated and/or high visibility where hazard/aspect identification and risk assessment identify the requirement.
- It is preferable to establish layers of protection by combining the three control types (Engineering, Administrative and PPE).

4.5. TRAINING

Divisions shall provide information on Working in Hot & Cold Conditions that includes:

- Hazards, signs and symptoms of exposure.
- Selection, use and maintenance of PPE.
- Personal controls for working in hot & cold conditions.
- The use of Saskatchewan Labour Relations and Workplace Safety publication for work requirements in hot conditions.
 - Emergency supplies and equipment when required.

5. BULK SAMPLING OF SUSPECT MATERIAL RESOURCES

5.1. INTERNAL RESOURCES

Related Policies:	<ul style="list-style-type: none">• General Health, Safety and Environment Policy• Hazard /Aspect and Risk Assessment (HARA) Policy
Related Standards:	<ul style="list-style-type: none">• Hazard /Aspect and Risk Assessment (HARA) Standard
Additional Information:	<ul style="list-style-type: none">• Health, Safety and Environment Rule Book

5.2. EXTERNAL RESOURCES

Related Legislation:	<ul style="list-style-type: none"> • <i>The Employment Act (Saskatchewan)</i> • <i>The Occupational Health and Safety Regulations, 1996 (Saskatchewan)</i> • Saskatchewan Labour Publication – Working Under Hot Conditions • Environment Canada Wind Chill Calculation Chart • Work Warm Up Schedule for Outdoor Activity Chart (OH&S)
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5.3 OWNERSHIP

Division:	Health and Safety
Department:	Safety Performance & Planning
Review Frequency:	3 years
Approved by:	Health & Safety Council
Approval Date:	6/12/2019

5.4 DOCUMENT HISTORY

Revised by	Revision Purpose	Date
Health and Safety Department	Scheduled Review Cycle	9/14/2016
Health and Safety Department	Scheduled Review Cycle	6/12/2019