Working in Hot and Cold Conditions Standard

1.0 PURPOSE

This standard supports the Hazard/Aspect Controls Policy and establishes the requirements for managing the risks associated for employees working in thermal extremes.

2.0 DEFINITIONS

2.1 Acclimatized

The process in which an individual adjusts to a gradual change in environment.

2.2 Heat Stress

Any set of environmental and workload conditions, which places excessive demands on the normal regulation of body temperature.

2.3 Wind Chill

Refers to the combined chilling effect of wind and temperature on humans.

3.0 METHOD / PRACTICE

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.

3.1 Identifying Heat Exposure Hazards

- All tasks, assignments and circumstances where heat exposure hazards, such as heat stress exist shall be identified via documented hazard/aspect identification and risk assessment.

3.2 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:
        - Equipment design such as covering hot surfaces with thermal insulating material.
        - Cooling systems.
    - Administrative controls include:
        - 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.
        - Increasing the frequency and duration of cool down breaks according to Hot Condition Guideline Saskatchewan Occupational Health and Safety.

- 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 identification and risk assessment identify the requirement.
  - PPE shall be flame resistant 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.

3.3 Identifying Cold Exposure Hazards

- All tasks, assignments and circumstances where cold exposure hazards, such as wind chill exist shall be identified via documented hazard/aspect identification and risk assessment.

3.4 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
  - 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 flame resistant 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, Adminstrative and PPE).

3.5 Training

Divisions shall provide information on the Working in Hot & Cold Conditions plan 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 tables and guidelines that determine work requirements in hot & cold conditions.
- Emergency supplies and equipment when required.

4.0 REFERENCES

Saskatchewan:

- The Occupational Health and Safety Regulations, 1996
- Saskatchewan Health & Safety Publication – Working Under Hot Conditions
- Saskatchewan Health & Safety Publication – Hot Conditions Guideline
- Saskatchewan Health & Safety Publication – Cold Conditions Guideline
- Environment Canada Wind Chill Calculation Chart
- Work Warm Up Schedule for Outdoor Activity Chart (OH&S)

SaskPower (located on SafetyNet)

- Safety and Environment Rulebook
- Personal Protective Equipment Policy
- Hazard/Aspect and Risk Assessment Policy
- Hazard/Aspect and Risk Assessment Standard