SUN SAFETY FOR OUTDOOR WORKERS
A toolkit for policy development

Niagara Region
Niagara Region Public Health would like to thank Australia’s SunSmart program and the Canadian Dermatology Association for granting us permission to adapt their resources to create this toolkit.

Content adapted from the following sources:

SunSmart Program, Cancer Council Victoria, Australia. Modified with permission 2013
Sun Safety for Outdoor Workers. Canadian Dermatology Association. Modified with permission 2013
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Introduction

This toolkit was created to assist Niagara workplaces in their efforts to protect their workforce from overexposure to Ultraviolet Radiation (UVR) from the sun. This toolkit includes:

- Background information regarding UVR and skin cancer
- Steps for creating and supporting UVR policy
- UVR Risk Assessment Survey for employees
- UVR Policy templates
- UVR Policy Tracking Tool

The workplace health promoter with Niagara Region Public Health is available to provide free consultations and resources to Niagara workplaces for policy support. For additional information, or to schedule a consultation, please visit www.niagararegion.ca and search the A-Z index for “workplace health” or call 905-688-8248 ext. 7362.

UVR and outdoor workers

Although small amounts of exposure to sunlight are beneficial for producing vitamin D, overexposure to UVR is known to cause adverse health effects to the skin, eyes and immune system. There is currently a lack of evidence to show whether vitamin D-producing sun exposure may be experienced without increasing the risk of cancer\(^1\). Vitamin D can also be acquired through the diet and vitamin D supplements. If a worker is concerned about their vitamin D levels, they should speak to a doctor.

Negative effects of overexposure to sunlight

Sunburn

Sunburn is a radiation burn to the skin. In Canada’s midday summer sun, fair-skinned individuals can sunburn quickly. All types of sunburn, whether serious or mild, can cause permanent and irreversible skin damage.

Premature aging

Most visible signs of aging are the result of damage to the skin caused by exposure to UVR\(^2\).

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Eye damage
Acute effects of exposure to UVR on the eye include photokeratitis (inflammation of the cornea and the iris) and photoconjunctivitis (inflammation of the membrane that lines the inside of the eyelids and white of the eye). This is commonly referred to as snow blindness or welder’s flash. Symptoms range from mild irritation to severe pain.

Skin cancer
The most serious health effect of exposure to UVR is skin cancer. Cancer is a disease that occurs when the cells of the body are damaged, causing them to grow out of control. Skin cancer is the most common form of cancer in Canada, with more than 81,300 new cases of non-melanoma and 5,800 cases of melanoma expected in 2012.

Outdoor workers at a higher risk
Outdoor workers have a much higher risk for developing skin cancer because they are regularly exposed to the sun for prolonged periods of time, especially during the spring and summer months when ultraviolet radiation levels are high.

Outdoor workers are often out in the sun during times of high UV intensity, around midday. Workers may also be restricted in terms of the sun safety measures they can use at the workplace due to other safety issues/measures in place.

The working population
Outdoor workers make up a significant part of the work force in Canada, including full time, part time, adult and youth workers in:
- Service industries such as landscaping, window cleaning, roofing and painting
- Construction, farming, forestry, orchards and winery operations
- Recreation and tourism such as lifeguards, sports, tour guides and camp counsellors
- Zoo or marine workers, those who work on boats or at marinas
- Postal and police services
- Truck drivers, delivery people

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3 Canadian Cancer Society: Cancer Statistics 2012
**Factors affecting UVR levels**

UVR can reach you directly from the sun or can be scattered by particles in the air and reflected by ground surfaces such as metal, concrete, sand and snow. The total amount of UVR present in a particular work location is affected by the following:

- **Sun elevation:** the higher the sun in the sky, the higher the levels of UVR at the earth’s surface. Therefore, levels of UVR are highest in the middle of the day and during the summer.

- **Cloud cover:** UVR can pass through light cloud cover. On lightly overcast days, the UVR intensity can be similar to a cloudless day. Heavy cloud cover can reduce UVR intensity. Scattered clouds have a variable effect on UVR levels, which can rise and fall as clouds pass in front of the sun.

- **Reflective surfaces:** Some building and ground surfaces such as polished aluminum, construction materials, lightly coloured concrete, sand and water can reflect UVR back into the skin and eyes.

- **For those who work near windows or travel in vehicles,** the filtering ability of windows in cars and buildings can also impact UVR levels.
**UV index**

Levels of UVR vary on any given day. The UV index is a rating system adopted from the World Health Organization. It is a simple way of describing the amount of UVR at the earth’s surface. The UV index is posted regularly alongside the weather and is easily available online, on TV, on the radio or on free phone apps.

The following chart outlines Environment Canada’s\(^4\) description of the UV levels and their recommended sun protection actions for each level. People with very fair, fair and light brown skin tend to be more sensitive to the sun and burn more easily. In summer, a fair-skinned person can burn in as little as 11 minutes. People with darker skin are less sensitive to the sun and may rarely burn\(^5\).

<table>
<thead>
<tr>
<th>UV Index</th>
<th>Description</th>
<th>Sun Protection Actions</th>
</tr>
</thead>
</table>
| 0 - 2    | Low Minimal sun protection required for normal activity | • Wear sunglasses on bright days  
• Reflection off snow can nearly double UV strength, so wear sunglasses and apply sunscreen on your face |
| 3 - 5    | Moderate Take precaution | • Wear a hat, clothes that cover, sunglasses and sunscreen  
• Look for shade near midday when the sun is strongest |
| 6 - 7    | High Protection required | • UV damages the skin and can cause sunburn  
• Reduce time in the sun between 11 a.m. and 4 p.m., seek shade, cover exposed skin, wear a hat and sunglasses, and apply sunscreen |
| 8 - 10   | Very High Extra precaution required | • Unprotected skin will be damaged and can burn quickly  
• Avoid the sun between 11 a.m. and 4 p.m., seek shade, cover exposed skin, wear a hat and sunglasses, and apply sunscreen |
| 11+      | Extreme Take full precaution | • Unprotected skin will be damaged and can burn in minutes  
• Avoid the sun between 11 a.m. and 4 p.m., seek shade, cover exposed skin, wear a hat and sunglasses, and apply sunscreen  
• Remember that white sand and other bright surfaces reflect UV and increase UV exposure |


Benefits of UVR policy

For individual workers, prevention efforts can decrease the need for surgery or other treatments for skin cancer removal and the accompanying pain and disfigurement. For employers, prevention of skin cancer can result in:

- Improved health of their employees
- A decrease in time away from work due to treatment of the skin cancer, including appointments, biopsies, surgery and subsequent recovery and stress
- Maintenance of productivity levels
- Lower cost to health benefit programs

A reduction in the cost to the public healthcare system in treating these largely preventable diseases presents another benefit. In Ontario alone, the cost of skin cancer was expected to exceed $344 million dollars in 2011. Implementation of a comprehensive UVR policy is beneficial to programming for multiple reasons including sustainability, cost effectiveness and accountability.

<table>
<thead>
<tr>
<th>Sustainability</th>
<th>UVR interventions that target behaviour change in individuals without changing the environments in which they work are unlikely to be effective in changing behaviour long-term. Programming alone is insufficient to bring about sustainable changes.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost Effectiveness</td>
<td>Providing a workplace environment that decreases workplace exposure to UVR can reduce time-loss costs to business, as outlined above.</td>
</tr>
<tr>
<td>Accountability*</td>
<td>The Ontario Occupational Health and Safety Act require employers to take every precaution reasonable under the circumstances to protect the health and safety of workers. The Ministry of Labour’s UVR guidance document recommends the use of Personal Protective Equipment (PPE), administrative controls and environmental controls to decrease sun exposure for outdoor workers. Some organizations have been proactive with developing UVR policies in an effort to become a responsible employer and in recognition of the potential return on investment.</td>
</tr>
</tbody>
</table>

*If resources are available, it is advisable to consult with appropriate legal advisors and/or risk management staff on accountability issues as they relate to the organization’s policies, specifically to ensure that all appropriate due diligence requirements are in place.

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Getting started with the creation of a UVR policy

A policy offers the opportunity for employers to demonstrate their dedication to the health and well-being of employees. This commitment to employee health can assist a workplace in becoming an employer of choice and attract talented people in a competitive market. This type of policy makes a positive statement by the employer indicating value of the health and well-being of the employee.

**Step 1: Establish the need for a policy**

When choosing to introduce a workplace UVR policy, it is important to start with an environmental scan of your workplace to determine:

- What jobs exist within your workplace that have high exposure to UVR?
- Do time-loss UVR injuries occur?
- What current supports are offered to decrease workers’ exposure to UVR? (sunscreen/shade/clothing)
- Are there any inconsistencies in how workers are being supported with efforts to decrease UVR exposure?
- Are there any existing health and safety policies that currently include UVR that could be expanded or improved?
- Are there any existing policies that could easily incorporate UVR?
- What areas of opportunity exist to impact upcoming changes with UVR policy? (e.g. replacing outdated uniforms with ones that provide UVR filters or adding shade structures during an upcoming renovation of outdoor space).

This information can be gained by having staff complete a sun safety risk assessment survey (Appendix A) and through conversations with key stakeholders such as workers, management, human resources and board members. Front line staff and managers will be able to provide insight as to what supports are currently provided and how consistently they are used in the field. These conversations may identify areas of readiness and opportunities for change.

**Step 2: Develop policy content**

Policy content can be formed from the results of the environmental scan. Key stakeholders should continue to be involved in this process to ensure the policy expectations are realistic in the work setting. Consider the following questions when selecting policy content:

- How will the policy be monitored and enforced?
- Can this policy be easily enacted by management?
- Is there readiness for this policy?
- How will this policy impact the needs identified in Step 1?
- How will the size of the workforce impact the success of the UVR policy?
Does management support the implementation of a UVR policy? If not, what evidence can you provide to increase support?

What timelines will be required to implement the policy?

Will the policy support the unique needs of workers throughout the seasons?

Does this policy impact existing health and safety requirements? (Does UVR clothing provide adequate protection from other workplace hazards)

Does this policy create a health and safety hazard? (e.g. Cords from brimmed hats could present a choking hazard)

Niagara Region Public Health is here to help and offers free consultations for workplaces on how to get started with developing a UVR policy. For assistance on establishing a policy or identifying the needs specific to your employee priorities and health needs, visit http://www.niagararegion.ca and search “workplace health”.

**Step 3: Draft the policy and procedure**

Workplace UVR policies vary based on the diversity of the workforce. The UVR policy should follow a similar format to existing internal policies. Policies should be clear and easy to understand. Generally, most policies contain the following sections:

- **Purpose:** What is the aim of this policy? Why is it needed in this workplace setting?
- **Scope:** Who will be impacted by the UVR policy? Which departments are affected? Will it involve managers, front-line workers, supervisors, volunteers?
- **Statement:** The standard or rules that the UVR policy aims to communicate to staff
- **Responsibilities:** What will be the corporation/HR role? What will be the manager’s role? What will be the employee’s role?
- **Definitions:** Explain some of the details of the policy in greater detail. For example: What is UVR? What is the difference between UVA/UVB? What is skin cancer?
- **Effective Date:** Indicates the date that the UVR policy came into effect and the date of any revisions
- **Review:** Does your workplace have a standard review period for policies? Is that timeline appropriate for this policy? Who will be in charge of reviewing the UVR policy?

Please see Appendix D and Appendix E for sample UVR policies:

The following chart indicates a variety of components that can be added into a UVR workplace policy. Not all examples will be appropriate for every workplace, which is why it is important to involve a variety of stakeholders to build a policy that works in theory and in practice.
Examples of UVR policy components

| Environmental controls | • Provide temporary or permanent shade structures for work and breaks. Consider the fabric’s Ultraviolet Protection Factor (UPF) when purchasing.  
• Include shade provision in landscaping considerations  
• Modify reflective surfaces to decrease indirect exposure in areas where outdoor work takes place (see Appendix B)  
• Install window tinting for vehicles and buildings to increase the UVR filtering capabilities of glass |
|------------------------|--------------------------------------------------------------------------------------------------|
| Administrative controls| • Train workers to work safely in the sun by providing information, instruction, training and supervision  
• Train workers on why and how to complete a skin check to monitor skin changes that may indicate skin cancer  
• Plan work routines so outdoor work is completed earlier in the morning and later in the afternoon  
• Plan work routines so indoor or shaded tasks are completed when UVR levels are lower (Before 11 a.m. and after 4 p.m.)  
• Move jobs indoors or to shaded areas  
• Share outdoor tasks and rotate staff so the same person is not always out in the sun  
• Post the UV index daily along with recommended measures for personal protection. The UV index is often reported alongside the weather and is easily available via free phone apps, TV, radio or the internet  
• Ensure water is available for consumption |
| Personal Protective Equipment and Clothing (PPE) | • Provision and use of sun protective work clothing  
• Provision and use of sun protective hats  
• Provision and use of sunglasses  
• Provision and use of sunscreen  

Choose carefully when using PPE as a control option, considering the type of outdoor work being performed. The design must balance sun protection with the need to stay cool and stay protected from other workplace hazards (e.g. sparks). It is also important to ensure that the design/usage of PPE does not create a secondary hazard such as loose clothing becoming caught in machinery.

When looking for sun protective clothing or hats, look for tighter weaves and darker colours, which provide better protection. Clothing is sometimes tested for its UPF.
Step 4: Review the policy with key parties

Although stakeholders such as front line workers, supervisors, health and safety committee members and workers with a focus on cancer prevention/UVR should all be involved in the creation of the policy, this is not always possible due to workload or scope. Once the policy has been drafted, it should be reviewed by those who will be impacted by the policy. If there is not a person within your organization who has a focus on cancer prevention or UVR, you can contact public health for support. The following should be considered during review:

- Do those who will be implementing the policy have the skills and resources they require?
- Are the expectations and roles clear?
- Are there issues or concerns that could be raised by implementing this policy?
- Is the content clear and unbiased?

### UPF RATING | PROTECTION CATEGORY | % UV RADIATION BLOCKED
---|---|---
15-20 | Good | 93.3-95.9
25-35 | Very Good | 96-97.4
40-50+ | Excellent | 97.5 or more

**Hats** should be wide-brimmed or legionnaire style with a flap that covers the neck. If a hard hat is required, attachable brims and neck flaps are available.

**Sunglasses** should be wrap-around and close fitting if possible. Employees who work around water or other highly-reflective surfaces should use polarized lenses to reduce glare. For workers who require eye protection from flying objects, choose safety sunglasses that meet Canadian Safety Standards. Look for sunglasses that filter high levels of UVA and UVB.

**Sunscreen** should be minimum SPF 30, broad spectrum (filters UVA and UVB) and water resistant. Sunscreen should be stored in a cool place that is accessible. Workers should be educated on the correct way to apply sunscreen. Sunscreen should be discarded on the expiration date. Workers should also be encouraged to use SPF 30 lip balm, although this should not be shared as an infection control measure.
**Step 5: Approve the policy**

Provide the required managers and decision makers with the workplace UVR policy and findings from the assessment tool. Work with your organization’s policy approval process.

**Step 6: Implement the policy**

It is important to remember that a policy is only helpful if workers are aware of it. Employees should be aware of the policy contents, the enforcement and start date. The policy should be made easily accessible. Share the UVR policy in multiple ways, ensuring it will be communicated to those with unique work situations, such as those with limited computer access or those who primarily work out of the office. The policy can be communicated by:

- Employee handbooks
- Policy and procedure manuals
- Shared employee drives
- Email
- Information sessions
- Team meetings
- Policy training sessions
- Ongoing communication methods such as: bulletin boards, newsletters, home pages, performance reviews

**Did you know?**

While implementing the policy, it is important to also provide education regarding UVR exposure and skin cancer screening/prevention. There are many ways to communicate these messages. Choose what works for your workplace.

- Brochures
- Posters
- Fact sheets
- Pay cheque inserts
- Displays
- Lunch and learn sessions

**Step 7: Review and evaluate the policy**

Over time, businesses develop, organizational structures change, more research becomes available and resources/roles change. These changes can impact the content and need for a policy, so regular review of all policies is necessary. Organizations often have a standard timeframe for policy review. Every one to two years is recommended. It is important to take note of feedback received and apply that feedback upon review of the policy. This ensures that employee needs are being met. Revision dates should be recorded on the policy so it is easy to track updates. When reviewing the UVR policy, consider:

- Has the legal environment changed?
- Have safety legislations changed which impact PPE?
- Has the policy been effectively implemented?
- What feedback has been received regarding the UVR policy?
- Have workplace UVR injuries decreased?
- Have employees noticed a decrease in exposure to UVR?
• Have newer products become available that would increase UVR safety?
• Have the employee UVR exposure levels changed?

**Step 8: Communicate changes to policy**

If any significant updates to the UVR policy occur, be sure to inform employees and other staff members in a process similar to the policy roll-out. Making modifications to the policy based on employee feedback will create buy-in from staff and make the policy more applicable to the individuals and the organization.

**Limitations**

This toolkit focuses on UVR exposure from the sun, and does not address UVR from alternative sources such as:
- Welding equipment
- Tanning beds
- Laser equipment
- X-Ray equipment

Workplaces that include UVR hazards such as those listed above should follow required/recommended safety measures and labour laws. Employers should also protect their employees from further exposure to UVR by including the recommendations included in this manual regarding sun exposure.
Appendix A: Sun safety risk assessment survey

The health risks concerning UV radiation depend on the time of day of exposure, length of time out in the sun, amount of shade available, time of year and other risk factors.

The following sun safety risk assessment survey should be sent to all outdoor workers in order to determine the situation at a particular workplace.

The scoring weight for each question is listed below. The maximum score is 34.
A score higher than 10 indicates that a worker is at risk for short and long-term skin damage due to sun exposure. Measures need to be taken to improve sun safety at the workplace.

A score of 15 and over indicates a worker is at high risk for short and long term skin damage due to the sun exposure. There is a serious need for preventive actions to improve sun safety at the workplace.

Use the information gathered as a tool to increase awareness among management and staff of the risks to themselves from excessive sun exposure. When communicating UVR messages, include the survey results.....“From the recent sun safety assessment everyone filled in, we found that ____% of our workers fall into the high risk group because of their sun exposure at the workplace. A further ___% of our workers fall into the at risk group. There is a need to introduce sun safety measures to reduce the health effects of excessive sun exposure on our workforce.

Scoring weights
1. A) 3  B) 0  C) 2  D) 0
2. A) 0  B) 1  C) 2  D) 3  E) 4
3. A) 2  B) 1  C) 0
4. A) 2  B) 1
5. A) 2  B) 0
6. A) 1  B) 2  C) 4
7. A) 3  B) 0
8. A) 3  B) 2  C) 2
9. A) 0  B) 0  C) 0  D) 0  E) 0  F) 3
10. A) 2  C) 0
11. A) 2  B) 0
12. A) 0  B) 2
Date: ________________________________
Occupation: ___________________________
Duties: _______________________________
Work Location: ________________________

Occupational health and safety staff are concerned about the sun exposure and sun safety among outdoor workers. Please fill in this form to help gather information to evaluate the situation at our workplace.

Please circle answers.

1. I work outdoors:
   a. All day
   b. Early morning (before 11 a.m.)
   c. Mid-day (11 a.m. - 4 p.m.)
   d. Late afternoon/evening (after 4 p.m.)

2. When working outdoors, I am exposed to the sun:
   a. Less than an hour
   b. More than one hour
   c. More than two hours
   d. More than three hours
   e. All day

3. Is there any shade available when you are working?
   a. No shade
   b. Some shade (natural shade from trees or shade from the side of buildings)
   c. Provided shade (canopy, umbrella, tent, shade structure)

4. Is there any shade available when you are taking a coffee or lunch break?
   a. No shade
   b. Some shade (natural shade from trees or shade from the side of buildings)
   c. Provided shade (canopy, umbrella, tent, shade structure)

5. Have you been sunburned at work?
   a. Yes
   b. No

6. If yes, how many times a year?
   a. Once
   b. Two-three times
   c. Four or more

7. If yes, was the sunburn severe? (painful/blistering)

8. If yes, where on the body were you sunburned?
   a. Face, neck or ears
   b. Back
   c. Arms or legs

9. What personal sun protective measures do you use while you are at work (provided by yourself or employer)?
   a. SPF 30 or higher sunscreen
   b. Hat - wide brimmed or helmet with neck flap
   c. Clothing - long pants
   d. Clothing - long-sleeved shirt
   e. Sunglasses
   f. None

10. Does most of your outdoor work take place between April and September?
    a. Yes
    b. No

11. If you work outdoors in the winter, do you work in sunny, snowy conditions?
    a. Yes
    b. No

12. Is the UV index posted at your workplace?
    a. Yes
    b. No
Appendix B: Reflective surfaces

<table>
<thead>
<tr>
<th>Material</th>
<th>Level of reflected UV radiation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lawn grass, summer/winter</td>
<td>2.0%-5.0%</td>
</tr>
<tr>
<td>Soil, clay</td>
<td>4.0%-6.0%</td>
</tr>
<tr>
<td>Asphalt roadway new/old</td>
<td>4.1%-8.9%</td>
</tr>
<tr>
<td>White House Paint</td>
<td>22%</td>
</tr>
<tr>
<td>Boat deck wood/fiberglass</td>
<td>6.6%-9.1%</td>
</tr>
<tr>
<td>Open Water</td>
<td>3.3%</td>
</tr>
<tr>
<td>Beach Sand, wet</td>
<td>7.1%</td>
</tr>
<tr>
<td>Beach Sand, dry</td>
<td>15%-18%</td>
</tr>
<tr>
<td>Snow old/new</td>
<td>50%-88%</td>
</tr>
<tr>
<td>Concrete footpath</td>
<td>8.2%-12%</td>
</tr>
</tbody>
</table>

When considering changes to reduce exposure to indirect UVR from reflective sources, keep the following in mind.

- Surface type: soft and rough surfaces reflect less UVR than hard and/or smooth surfaces
- Colour: simply painting a surface a less reflective colour can reduce indirect exposure
- The addition of shade can further reduce the UVR from reflective surfaces.
Appendix C: UVR policy, template 1

(Name of Organization) is interested in providing a safe working environment for our employees. (Name of Organization) is committed to the health and safety of our workers. (Name of Organization) acknowledges that ultraviolet (UV) radiation through sun exposure may have damaging effect on our employees working outdoors. Sunburn is the immediate result of too much exposure to UVR. Over a period of years, UVR exposure causes eye damage, premature aging of the skin, damage to the immune system and increases the risk for skin cancer. These health problems are largely preventable by following sun safety guidelines.

By instituting this policy, we hope to provide a comprehensive approach to protection from sun exposure. Through this policy, we plan to:

- Reduce UV exposure
- Improve sun protection during unavoidable sun exposure

The strategies we will adopt to support this goal are:

- Rotate workers between work sites or site locations so they are not all exposed to the sun during the period or greatest UV intensity between 11 a.m. to 4 p.m.
- Provide free SPF 30 or higher broad spectrum sunscreen and SPF 30 lip balm to all outdoor workers from April to September
- If possible, avoid scheduling outdoor work during the peak midday hours of noon to 2 p.m.
- Erect shade structures at all locations for use during coffee breaks and lunch breaks
- Promote sun safety education throughout our organization and at orientation for new and seasonal staff.
Appendix D: UVR policy, template 2

Policy statement
The (Organization Name) is committed to the health and safety of its workers. This commitment includes protecting our employees from the adverse effects associated with prolonged exposure to solar ultraviolet radiation (UVR).

Scope
This policy applies to every department/division, supervisor, and employee of the (Organization’s Name), where outdoor work or work assignments are required and there is a risk of prolonged exposure to solar UVR as a result of these activities.

Rationale
Although exposure to small amounts of solar UVR can have beneficial effects, such as vitamin D synthesis in the skin, there is significant health risks associated with overexposure to solar UVR, both of an acute and chronic nature. Sunburn is the immediate result of too much exposure to UVR. Over a period of years, UVR causes eye damage, premature aging of the skin, and damage to the immune system and increases the risk for skin cancer. These health problems are largely preventable by following sun safety guidelines.

Goals
- Raise awareness of the risks associated with exposure to solar UVR
- Raise awareness of the guidelines for sun safe behavior and to implement and support their adoption in the workplace
- Increase the awareness of the need to provide adequate shade for outdoor workers and to be flexible in work assignments
- Define the responsibilities of the employer and employee in implementing/supporting and maintaining the policy
- Assist in the protection of workers from overexposure to solar UVR

NOTE: Sun Safety protection should NOT replace current safety wear or lead to other safety risks. (E.g. The risk of head injury from using hats with inadequate impact protection, or the risk of heat stress from wearing heavy clothing in hot environments).
Sun safety guidelines

**Administrative controls**
- Schedule Outdoor Work to Minimize Peak Sun Intensity Hours – 11 a.m. to 4 p.m.
- Whenever reasonable, outside work should not be scheduled during peak UV times. Where the job or work times cannot be changed, consideration will be given to the rotation of workers while providing personal protective equipment to the workers.

**Environmental controls**
- If you must be outdoors during peak sun hours, use shade, portable shade or shaded areas whenever reasonable to minimize exposure to UV
- Portable shade may include: umbrellas, tarps, tents and canopies
- Seek shade at break and lunch times

**Personal protective equipment (PPE)**
- Wear sun protective clothing, sunglasses, hats and sunscreen
- Wear loose-fitting long-sleeved shirts with a collar and long pants of a tightly woven loose fitting fabric
- Wear hats with wide (8 cm) brims all around. Brim attachments and neck flaps should be used with hard hats.
- Wear wraparound sunglasses that meet the CSA standards for UVA/UVB protection
- Use a water resistant sunscreen and lip balm with a minimum of 30 SPF that blocks out both UVA and UVB rays (broad-spectrum)
- Apply sunscreen liberally, 30 minutes before exposure and reapply every two hours or after swimming or sweating. (A skin patch test should be done prior to first time usage to rule out any product sensitivities).
- If insect repellent is required, apply 30 minutes after sunscreen.

Do a regular self-examination to detect any new or changed moles, freckles or other skin spots. Have any changes checked by your Health Care Practitioner.

**Responsibilities**

**Department/divisions**
- Identify all outdoor activities, under their jurisdiction, that are at risk for prolonged exposure to UVR
- Inform supervisors and workers of jobs that have the potential for prolonged sun exposure
- Plan for provision of information to supervisors and workers
• Provide the necessary administrative PPE and environmental controls to protect employees from overexposure to sunlight such as:
  o Broad-spectrum, hypoallergenic, CDA approved water resistant sunscreen with SPF 30.
  o Wide brimmed hat or hard hat cover and UV blocking sunglasses.

**Supervisors or delegate**
• Be aware of all work under their supervision that places a worker at risk for prolonged sun exposure
• Ensure that information has been provided (e.g. bulletins, meetings, etc.)
• Understand, model and encourage employees to follow the sun safety guidelines
• Distribute and encourage the use of sun protective controls
• Be aware of changing conditions and adjust work assignments as needed
• Post and/or broadcast UV Index information as required

**Employees**
• Be aware of solar UVR, health effects associated with sun exposure and the guidelines for sun safe behavior
• Be personally responsible for following the sun safety guidelines, as needed, to decrease sun exposure
• Be personally responsible for patch testing any new sunscreen product to guard against a possible allergic reaction
• Report sun related injuries (sunburn, heatstroke, etc.) to immediate supervisor

**Human resources department**
• Assist with the implementation of the policy by providing information to all employees
• Handout materials regarding sun safety and skin cancer can be obtained from the Public Health Department and/or the Canadian Cancer Society
• Review the policy annually in consultation with the Health and Safety Committees

**Health and safety committee**
• Review the policy annually to determine if goals are being met, to identify any barriers and to recommend changes/improvements
• Review all employee incident reports to identify any trends related to UVR exposure
Appendix E: Progress tracker

The chart below will help you review progress in key areas.

**Progress tracker- Sun safety for outdoor workers initiative**

<table>
<thead>
<tr>
<th>Tools</th>
<th>Progress</th>
<th>Date established</th>
<th>Comments</th>
<th>Potential ideas/changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sun safety policy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff UV education program</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Limit exposure to UV</td>
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<tr>
<td>Shade- Provision and use</td>
<td></td>
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<td></td>
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<tr>
<td>Sun protective clothing and hats: provision and use</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sunscreen: provision and use</td>
<td></td>
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</tr>
</tbody>
</table>

**Evaluation**

Measure the behavior of workers before and after instituting sun protection measures using the risk assessment survey included in this package.

There should be about a three month period between introducing sun protection measures and reassessment. Evaluation of the effectiveness of the policy should be ongoing. Allow about three months between assessments.

Keep updating the Progress tracker included here with new information as your policy and associated supports progress. It will help to shape future direction. Convene your sun safety committee meetings on a regular basis and share this information with the group.